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As filed with the Securities and Exchange Commission on February 17, 2026

Registration No. 333-293396

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

AMENDMENT NO. 2
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

HCW BIOLOGICS INC.
(Exact name of Registrant as specified in its charter)

Delaware	2834	82-5024477
(State or Other Jurisdiction of Incorporation or Organization)	Primary Standard Industrial Classification Code Number	(I.R.S. Employer Identification Number)

2929 N Commerce Parkway
Miramar, FL 33025
(954) 842-2024
Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices

Hing C. Wong, Ph.D.
Chief Executive Officer
HCW Biologics Inc.
2929 N Commerce Parkway
Miramar, FL 33025
(954) 842-2024
Name, Address Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service

With a copy to:

James Groth, Esq. **Clark Hill PLC** **130 E. Randolph St., Ste. 3900** **Chicago, IL 60601** **(312) 701-6830**	**Yevgeniya (Jeny) Zarmon, Esq.** **Clark Hill PLC** **210 Carnegie Center, Suite 102** **Princeton, NJ 08540** **(609) 785-2918**	**Barry I. Grossman, Esq.** **Matthew Bernstein, Esq.** **Ellenoff Grossman & Schole LLP** **1345 Avenue of the Americas** **New York, New York 10105** **Tel: (212) 370-1300**

Approximate Date of Commencement of Proposed Sale to the Public: As soon as practicable after this registration statement becomes effective.

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

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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

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

PRELIMINARY PROSPECTUS **SUBJECT TO COMPLETION, DATED FEBRUARY 17, 2026**

Up to 7,691,124 Units, each consisting of:

One Share of Common Stock or One Pre-Funded Warrant to Purchase One Share of Common Stock and One Common Stock Warrant to Purchase One Share of Common Stock Up to 7,691,124 Shares of Common Stock or Shares of Common Stock Underlying Pre-Funded Warrants Up to 7,691,124 Shares of Common Stock Underlying Common Stock Warrants

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We are offering on a reasonable best efforts basis up to 7,691,124 units ("Units") each consisting of one share of our common stock, par value $0.0001 per share (our "Common Stock"), and one warrant (each a "Common Stock Warrant" or "warrant"), each warrant to purchase one shares of our Common Stock at an assumed offering price of $0.6501 per Unit, for gross proceeds of approximately $5,000,000. The public offering price per Unit will be determined between us and the placement agent based upon a number of factors, including market conditions at the time of pricing, our history and our prospects, the industry in which er operate, our past and present operation results and the general condition of the securities market at the time of this offering and may be at a discount to the then current market price of our Common Stock. Therefore, the recent market price of our Common Stock referenced in this preliminary prospectus may not be indicative of the final offering price per Unit. The Units have no stand-alone rights and will not be certificated or issued as stand-alone securities. The Common Stock or Pre-Funded Warrants (as defined below) and Common Stock Warrants are immediately separable and will be issued separately in this offering. Each Common Stock Warrant will be exercisable beginning on the effective date of such shareholder approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (or any successor entity) to permit the exercise of the Common Stock Warrants ("Shareholder Approval") for one share of Common Stock at an exercise price of $ per share (100% of the assumed public offering price per Unit) and will expire on the fifth anniversary of the date of Shareholder Approval. If we are unable to obtain any required Shareholder Approval, the common warrants will not be exercisable and therefore have no value.

Our Common Stock is listed on The Nasdaq Stock Market LLC ("Nasdaq") under the symbol "HCWB". On February 13, 2026, the last quoted sale price for our Common Stock as reported on Nasdaq was $0.6501 per share.

We are also offering to investors in our Common Stock that would otherwise result in the investor's beneficial ownership exceeding 4.99% of our outstanding Common Stock immediately following the consummation of this offering the opportunity to invest in pre-funded warrants, each to purchase one share of our Common Stock ("Pre-Funded Warrant") (in lieu of shares of our Common Stock). Subject to limited exceptions, a holder of Pre-Funded Warrants will not have the right to exercise any portion of its Pre-Funded Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the holder, such limit may be increased to up to 9.99%) of our Common Stock outstanding immediately after giving effect to such exercise. Each Pre-Funded Warrant will be exercisable for one share of our Common Stock. The purchase price of each Pre-Funded Warrant will be equal to the price per share of one share of our Common Stock, minus $0.0001, and the exercise price of each Pre-Funded Warrant will equal $0.0001 per share. The Pre-Funded Warrants will be immediately exercisable (subject to the beneficial ownership cap) and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full. For each Pre-Funded Warrant purchased (without regard to any limitation on exercise set forth therein), the number of shares of our Common Stock we are offering will be decreased on a one-for-one basis.

The securities will be offered at a fixed price and are expected to be issued in a single closing. We expect this offering to be completed no later than two business days following the commencement of sales in this offering (after the effective date of the registration statement of which this prospectus forms a part) and we will deliver all

securities to be issued in connection with this offering delivery versus payment or receipt versus payment, as the case may be, upon our receipt of investor funds. Accordingly, neither we nor the placement agent have made any arrangements to place investor funds in an escrow account or trust account since the placement agent will not receive investor funds in connection with the sale of the securities offered hereunder.

We have engaged Maxim Group LLC (the "placement agent" or "Maxim") to act as our exclusive placement agent in connection with this offering. The placement agent has agreed to use its reasonable best efforts to arrange for the sale of the securities offered by this prospectus. The placement agent is not purchasing or selling any of the securities we are offering and the placement agent is not required to arrange the purchase or sale of any specific number of securities or dollar amount. We have agreed to pay the placement agent the fees set forth in the table below, which assumes that we sell all of the securities offered by this prospectus. There is no arrangement for funds to be received in escrow, trust or similar arrangement. There is no minimum offering requirement as a condition of closing of this offering. We may sell fewer than all of the shares offered hereby, which may significantly reduce the amount of proceeds received by us. Because there is no escrow account and no minimum number of securities or amount of proceeds, investors could be in a position where they have invested in us, but we have not raised sufficient proceeds in this offering to adequately fund the intended uses of the proceeds as described in this prospectus. See "Risk Factors" for more information regarding risks related to this offering. We will bear all costs associated with the offering. See "Plan of Distribution" for more information regarding these arrangements.

	Per Unit Consisting of Common Stock and Warrants	Per Unit Consisting of Pre-Funded Warrant and Warrants	Total[2]
Public offering price	$	$	$
Placement agent fees[1]			
Proceeds to us, before expenses[1]	$	$	$

(1) The placement agent fees shall equal 7.0% of the gross proceeds of the securities sold by us in this offering. The placement agent will receive compensation in addition to the placement agent fees described above. See "Plan of Distribution" for a description of compensation payable to the placement agent.

(2) The foregoing assumes that no Pre-funded Warrants are issued as part of the offering and does not include proceeds from the exercise of any Common Stock Warrants.

There is no established trading market for the Pre-Funded Warrants and we do not expect an active trading market to develop. We do not intend to list the Pre-Funded Warrants on any securities exchange or other trading market. Without an active trading market, the liquidity of these securities will be limited.

We are an "emerging growth company," as defined under the federal securities laws, and, as such, may elect to comply with certain reduced public company reporting requirements for future filings.

Investing in our securities is speculative and involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 17 of this prospectus before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We anticipate that delivery of the securities against payment will be made on or about [ ], 2026.

Sole Placement Agent

Maxim Group LLC

The date of this prospectus is February [ ], 2026

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The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement, including the exhibits, can be read on our website and the website of the Securities and Exchange Commission. See "Where You Can Find More Information."

Information contained in, and that can be accessed through our web site, www.hcwbiologics.com shall not be deemed to be part of this prospectus or incorporated herein by reference and should not be relied upon by any prospective investors for the purposes of determining whether to purchase the shares offered hereunder.

Unless the context otherwise requires, the terms "we," "us," "our," the "Company," "HCW Biologics," "HCWB," and "our business" refer to HCW Biologics Inc. and "this offering" refers to the offering contemplated in this prospectus.

Neither we nor the placement agent have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under the circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of securities hereunder. Our business, financial condition, results of operations and prospects may have changed since that date. We are not, and the placement agent is not, making an offer of these securities in any jurisdiction where such offer is not permitted.

ABOUT THIS PROSPECTUS

We incorporate by reference important information into this prospectus. You should rely only on the information contained in this prospectus, including the information incorporated by reference into this prospectus, and in any free writing prospectus. We have not and the placement agent has not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. We take no responsibility for and cannot provide any assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted.

Neither we nor the placement agent have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of our securities and the distribution of this prospectus outside of the United States. This prospectus does not constitute an offer to sell to any person, or a solicitation of an offer to purchase from any person, the securities offered by this prospectus in any jurisdiction in which it is unlawful to make such offer or solicitation of an offer.

This prospectus is part of a registration statement that we filed with the SEC. This prospectus provides you with general information regarding the securities being offered hereby. You should read this prospectus as well as the additional information described under the headings “Information Incorporated by Reference” and “Where You Can Find More Information” before making an investment decision.

This document may only be used where it is legal to sell these securities. The information contained in this prospectus (and in any supplement or amendment to this prospectus) is accurate only as of the date on the front of the document, and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus concerning our business and the industry and markets in which we operate, including with respect to our business prospects, our market position and opportunity, and the competitive landscape, is based on information from our management’s estimates, as well as from industry publications, surveys, and studies conducted by third parties. Our management’s estimates are derived from publicly available information, their knowledge of our business and industry, and assumptions based on such information and knowledge, which they believe to be reasonable. In addition, while we believe that information contained in the industry publications, surveys, and studies has been obtained from reliable sources, we have not independently verified any of the data contained in these third-party sources, and the accuracy and completeness of the information contained in these sources is not guaranteed.

Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” in this prospectus and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, including in our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the Securities and Exchange Commission (the “SEC”) on March 28, 2025. Accordingly, you should not place undue reliance on this information.

PROSPECTUS SUMMARY

The SEC allows us to "incorporate by reference" certain information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will update automatically, supplement and/or supersede the information disclosed in this prospectus. Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any other document that also is or is deemed to be incorporated by reference in this prospectus modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should read the following summary together with the more detailed information regarding our company, our securities and our financial statements and notes to those statements included in this prospectus. This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus. This summary may not contain all the information that you should consider before determining whether to invest in our securities. You should read the entire prospectus carefully, including the information included in the "Risk Factors" section, as well as our financial statements, notes to the financial statements and the other information included or incorporated by reference in this prospectus, before making an investment decision.

Our Company

HCW Biologics is a clinical-stage biopharmaceutical company developing proprietary immunotherapies to treat diseases promoted by chronic inflammation, especially age-related and senescence-associated diseases. Our immunotherapeutics represent a new class of drug that we believe has the potential to fundamentally change the treatment of cancer and many other diseases and conditions that are promoted by chronic inflammation — and in doing so, improve patients' quality of life and possibly extend longevity. While chronic inflammation is possible at any age, it is more common as we age. In this case, the condition is known as inflammaging. The induction and retention of low-grade inflammation in an aging human body is mainly the result of the accumulation of non-proliferative but metabolically active senescent cells, which can also be caused by persistent activation of immune cells.

Chronic inflammation, including inflammaging, is believed to be a significant contributing factor to the cause for senescence-associated diseases and conditions that diminish health span, including many types of cancer, autoimmune diseases, and neurodegenerative diseases, as well as indications that impact quality-of-life that are not life-threatening. Senescence is a physiologic process important in promoting wound healing, tissue homeostasis, regeneration, embryogenesis, fibrosis regulation, and tumorigenesis suppression. However, accumulation of senescent cells with Senescence-Associated Phenotype ("SASP") proinflammatory factors has been implicated as a major source of chronic sterile inflammation leading to many aging-related pathologies. SASP factors, including proinflammatory cytokines, chemokines, and proteinases, drive an inflammation cycle. Senescence is considered a stress response and can be induced by a wide range of intrinsic and extrinsic insults. Over time, these insults cause normal tissue cells to enter a senescent state of irreversible growth arrest accompanied by the release of SASP factors. The inflammation cycle promoted by SASP factors also activates immune cells. Similar to senescent cells, prolonged activation of immune cells promotes the release of highly proinflammatory cytokines. Unresolved activation of immune cells leads to chronic low-grade inflammation, which perpetuates this cycle.

Studies have shown that strategies to reduce or eliminate senescent cells can delay, prevent, and improve age-related dysfunctions, including cancer. Unfortunately, to date, there has been limited clinical success in targeting senescent cell accumulation or aberrant inflammasome activity using small molecule-based approaches. Preclinical research and preliminary results from first-in-human clinical trials indicate that our immunotherapeutic approach may achieve success for cancer indications, and many other age-related diseases and conditions. We believe our lead product candidates represent a novel immunotherapeutic approach and a clinically promising new class of senotherapeutic drugs for the treatment of age-related diseases.

The Company has developed two different drug discovery and development platforms, our legacy TOBI™ (Tissue factOr-Based fusIon) platform and our newly developed targeted platform technology – the T-cell Receptor ß Chain constant region ("TRBC") platform:

- The TOBI platform is designed to engineer multi-functional fusion protein molecules and protein complexes. It employs a Tissue Factor ("TF") scaffold that can be packaged with multiple protein targets, including cytokines, chemokines, ligands, receptors, and single-chain antibodies.
- The Company invented its second-generation platform, the TRBC platform, to create novel immunotherapeutics designed to treat diseases, including cancer, as well as improve quality-of-life conditions. The immunotherapeutics created using the TRBC platform include multi-specific cytokines, targeted second-generation immune checkpoint inhibitors, and immune-cell engagers, which have the capabilities to activate subsets of immune cells that specifically target cancerous or infected cells.

As of July 13, 2024, the Company, Dr. Hing C. Wong (the Company's CEO), Altor BioScience, LLC, NantCell, Inc. and ImmunityBio, Inc. (collectively, Altor BioScience, LLC, NantCell, Inc. and ImmunityBio Inc. will be referred to herein as "ImmunityBio"), entered into a Settlement Agreement that is described in Part I, Item 3. – "Legal Proceedings" of our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 28, 2025. The Settlement Agreement eliminated the uncertainty of the outcome of the previously disclosed Arbitration proceedings and provided clarity for the future direction and emphasis of our clinical development strategy. The settlement involved intellectual property the Company developed based on our proprietary TOBI™ drug discovery platform and its unique Tissue-Factor scaffold used to create protein-fusion molecules.

With clarity on ownership of intellectual property, the Company reassessed its clinical development pipeline and the future direction of our Company. Our expertise is in immunotherapeutic treatments and our clinical development pipeline will remain so. Our focus continues to be to develop protein-based immunotherapies that are administered by subcutaneous injection. We remain focused on diseases promoted by chronic inflammation driven by senescence, including cancer, especially age-related diseases. The diseases we will target will have no curative FDA approved treatments. Finally, we have selected programs that include life-threatening diseases, such as pancreatic and ovarian cancer, as well as "quality-of-life" indications, such as alopecia areata and senile lentigo. HCW9302 will remain one of our lead product candidates. Future drug discovery and new drug development will be based on TRBC Molecules. There are several potential candidates in each class of TRBC Molecules from which the Company will select lead molecules for each program. Part of this selection will be to determine which TRBC molecules will be developed in-house and which are more appropriate to develop through business development transactions, such as out-licensing agreements.

Our clinical development program is based on a few select lead product candidates which will be evaluated in Company-sponsored clinical trials in autoimmune disorders, solid tumors and quality-of-life conditions. We have a large portfolio of non-core programs and assets and, for these, we anticipate that clinical development will be conducted through licensing agreements and other business development transactions.

HCWB has an experienced team led by Dr. Hing C. Wong, our Founder and CEO, who discovered and developed the immunotherapeutic — Anktiva® (also known as ALT-803, an IL-15 agonist receptor) through pivotal trials. This blockbuster immunotherapeutic product for cancer was sold to ImmunityBio, Inc. in 2017 in a $1.0 billion acquisition. Anktiva® was approved by the U.S. Food and Drug Administration ("FDA") for a bladder cancer indication in 2024.

Reverse Stock Split of Our Common Stock

On March 31, 2025, at a Special Meeting of the Stockholders (the "Special Meeting"), the stockholders of the Company approved a reverse stock split of all outstanding shares of the Common Stock, and the Board approved

a reverse stock split of the Common Stock at a final ratio of one-for-forty (1:40) (the "Reverse Stock Split"). The Reverse Stock Split was effective at 12:01 a.m. Eastern Time on April 11, 2025. The Common Stock commenced trading on a Reverse-Stock-Split-adjusted basis when the markets opened on April 11, 2025, under the existing trading symbol "HCWB."

Our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024 that are incorporated by reference into this prospectus are presented without giving effect to the Reverse Stock Split. Except where the context otherwise requires, share numbers and price per share amounts in this prospectus reflect the Reverse Stock Split, including share numbers and price per share amounts with respect to prior transactions, which reflect the Reverse Stock Split retrospectively.

In addition to the Reverse Stock Split, the stockholders approved two other proposals at the Special Meeting: (1) use of our equity line of credit to raise up to $40.0 million through sales of shares of the Company's Common Stock thereunder and (2) execution of the principal terms for the conversion of up to approximately $6.9 million of the outstanding principal of Secured Notes into shares of Common Stock.

All authorized, issued, and outstanding shares of common stock, preferred stock, stock option awards, and per share data included in this prospectus have been recast to give retrospective effect to the adjusted authorized shares and Reverse Stock Split for all periods presented. The Reverse Stock Split did not have any effect on the stated par value of the Company's Common Stock or the rights and privileges of the holders of shares of Common Stock. Options, warrants and convertible securities outstanding immediately prior to the Reverse Stock Split were appropriately adjusted to reflect the Reverse Stock Split.

Reverse Stock Split Presentation

The Company identified certain immaterial presentation errors in our previously issued interim financial information related to the Reverse Stock Split (the "Reverse Stock Split"). In the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2025 (the "Q1 2025 10-Q"), we disclosed in Note 1, Organization and Summary of Significant Accounting Policies, that our board of directors had approved the Reverse Stock Split. However, the effects of the Reverse Stock Split were not reflected on the face of the financial statements or in certain share-based disclosures for periods presented as of March 31, 2025, as required for retrospective presentation.

The Company's Reverse Stock Split was retrospectively reflected in subsequent periodic reports. The correction related to the Reverse Stock Split affected only share-based information and amounts derived from share counts. Specifically, the correction impacted the presentation of common shares outstanding, weighted-average shares outstanding, and per-share amounts. The correction did not affect the Company's total stockholders' equity, cash balances, net cash used in operating activities, or the underlying economics of any transaction. Other than the share-based presentation and related measurement described below, the Company's consolidated financial position, results of operations, and cash flows were unchanged for all periods presented.

In evaluating whether the Company's previously issued interim financial information was materially misstated, the Company performed an analysis of quantitative and qualitative factors in accordance with Staff Accounting Bulletin No. 99 (Materiality) and Staff Accounting Bulletin No. 108 (Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements), as well as the guidance in ASC Topic 250, Accounting Changes and Error Corrections. We concluded that the presentation error and the related adjustments were immaterial to the previously issued financial statements, either individually or in the aggregate, for the applicable periods.

The following table presents the change in our Q1 2025 10-Q as a result of the Reverse Stock Split (i) as previously presented and (ii) as adjusted to give retrospective effect to the 1-for-40 Reverse Stock Split. This table is included solely to illustrate the impact of the Reverse Stock Split.

Financial Statement	Original Filing	As Adjusted
Condensed Balance Sheet		
As of December 31, 2024		
Shares outstanding	44,541,295	1,113,532
Common Stock (par value)	4,454	111
Additional paid-in capital	93,781,511	93,785,854
As of March 31, 2025		
Shares outstanding	44,934,120	1,123,353
Common Stock (par value)	4,493	112
Additional paid-in capital	94,186,471	94,190,852
Condensed Statements of Operation / Note 5: Net Loss Per Share		
Three Months Ended of March 31, 2024		
Net loss per share, basic and diluted	$ (0.20)	$ (8.03)
Weighted average shares outstanding, basic and diluted	37,223,588	930,590
Three Months Ended of March 31, 2025		
Net loss per share, basic and diluted	$ (0.05)	$ (1.97)
Weighted average shares outstanding, basic and diluted	44,675,656	1,116,891
Condensed Statements of Changes to Stockholders' Equity (Deficit)		
Balance March 31, 2024		
Shares	37,823,394	945,585
Amount	3,782	95
Additional paid-in capital	86,737,203	86,740,890
Balance March 31, 2025		
Shares	44,934,120	1,123,353
Amount	4,493	112
Additional paid-in capital	94,186,471	94,190,852
Note 1: Liquidity and Going Concern Footnote	The Company issued 384,615 shares	The Company issued 9,616 shares
	The holder has the right to exercise 6,717,000 at $1.03/share	The holder has the right to exercise 167,925 at $41.20/share

The Reverse Stock Split did not affect the stated par value of our common stock or the rights and privileges of holders of our common stock. Outstanding options, warrants and convertible securities were adjusted proportionately to reflect the Reverse Stock Split. Other than changes to the presentation above, the Reverse Stock Split did not affect our total stockholders' equity, cash flows or results of operations for any period presented.

Recent Developments

WY Biotech License Agreement

In November 2024, the Company and WY Biotech Co., Ltd. ("WY Biotech") entered into a License, Research and Co-Development Agreement ("WY Biotech License"), as amended. The WY Biotech License is a grant of an

exclusive, worldwide license to use and apply HCW11-006, a preclinical molecule, for *in vivo* applications. The Company holds an Opt-In Right under the provisions of the WY Biotech License, which gives the Company the option to assume all control and responsibility for the development, manufacture and commercialization of HCW11-006 for *in vivo* applications in North America, South America, and Central America. The Company retains *ex vivo* rights. Under the amended terms, the parties agreed to extend the timing for the payment of the upfront license fee of $7.0 million and reduced the performance obligation for the Company to the delivery of a technical report that characterized the licensed molecule by May 13, 2025.

In the quarter ended June 30, 2025, the Company delivered the technical report and WY Biotech notified the Company that it completed its due diligence to study the technical report delivered by the Company and elected to continue with the exclusive worldwide WY Biotech License, as amended. As a result, WY Biotech is financially obligated to the Company, as detailed in the WY Biotech License, as amended, including the obligation to pay a $7.0 million upfront license fee. WY Biotech is in the process of finalizing agreements with its contract development and manufacturing organization ("CDMO") and investors. In order to accommodate WY Biotech's timing in finalizing agreements, the Company and WY Biotech agreed to extend the latest date for payment of the $7.0 million license fee to September 30, 2025. As reported on Form 8-K filed on September 2, 2025, WY Biotech informed the Company it has not yet finalized such agreements and will likely not meet the amended payment date. The Company and WY Biotech recently entered into term sheets providing principal terms to further amend the WY Biotech License, and the parties are currently negotiating the definitive agreements for further revisions of and additions to the Agreement.

On November 17, 2025, the Company and Beijing Trimmune Biotech Co., Ltd. ("Trimmune") entered into an Amended and Restated License, Research and Co-Development Agreement ("A&R License") following the assignment of the original WY Biotech License from WY Biotech Co., Ltd. to Trimmune. The parties restructured the terms of the original WY Biotech License to include the assignment of rights to Trimmune, payment of half of the $7.0 million upfront license fee (i.e., $3.5 million) in cash at closing and the other half in transferable equity in Trimmune (valued based on its current round of equity financing), and an option to license HCW9302 for in vivo applications in China or Asia. Pursuant to the terms of the A&R License, the Company will retain its payment-free, milestone-free, and royalty-free option to recapture all rights to the development and commercialization of the licensed molecule for in vivo applications in the United States, Canada, Central America, and South America (Opt-in Territory) after the conclusion of the Phase 1 clinical trial. Trimmume is financially responsible for all costs associated with research and development, manufacturing, clinical development, regulatory approval, and commercialization for the molecule in its territory.

On February 13, 2026, Trimmune initiated payment of half of the $3.5 million upfront cash license fee to the Company ($1.75 million, before taxes), with the remainder to be paid on or before March 6, 2026. The $3.5 million upfront license fee, combined with the Company's minority co-founder equity position in Trimmune, currently valued at approximately $3.5 million, constitute consideration for the HCW11-006 license. In addition to the upfront license fee, the Company is eligible to receive significant development milestone payments and royalties on future product sales, as well as a portion of the proceeds from certain future transactions involving the licensed molecule, if and when such transactions occur.

First-In-Human Clinical Trial to Evaluate HCW9302 in an Autoimmune Disease

On November 18, 2025, we issued a press release announcing that the first patient was dosed in a Company-sponsored, multi-center Phase 1 clinical trial to evaluate our lead product candidate, HCW9302, in patients with an autoimmune disorder. It is a subcutaneously injectable, first-in-kind interleukin-2 ("IL-2") fusion molecule constructed using the Company's legacy TOBI™ platform technology. IL-2, the active component of HCW9302, is the cytokine in humans and other vertebrates responsible for maintaining the proper numbers and functions of regulatory T ("Treg") cells in the body. Treg cells control excessive inflammation caused by other immune cells, which is the etiology of autoimmune diseases. The Phase 1 multi-center dose-escalation study of HCW9302 is designed to treat up to 30 patients with alopecia areata. The primary objectives of the study are to evaluate the safety of HCW9302, injected under the skin (subcutaneously), and to determine the recommended dose level to

advance to later phase clinical studies. Secondary objectives include assessment of disease responses and the effects of HCW9302 on proliferation and function of immune cells, particularly Treg cells. Depending on the results of this study, multi-dose studies of HCW9302 in expanded cohorts of patients with alopecia areata and in patients with other inflammatory dermatological conditions are expected to be initiated.

Compliance with Nasdaq Listing Rules

On June 26, 2025, we announced that we received formal notice from Nasdaq that the Company is in compliance with Listing Rule 5550(b)(1) (the "Equity Rule"). On May 13, 2025, the Company received formal notice from Nasdaq that it regained compliance with the bid price requirement in Listing Rule 5550(a)(2), the public float requirement in Listing Rule 5550(a)(4), and the market value of publicly held shares requirement in Listing Rule 5550(a)(5). As a result, the Company believed that it was in compliance with all applicable criteria for continued listing on the Nasdaq Capital Market tier and that the previously disclosed listing compliance matters had been closed.

The Company was notified that it will remain subject to a "Panel Monitor," as that term is defined in Nasdaq Listing Rule 5815(d)(4)(B), for a period of one year from the date of the Nasdaq notice, through June 23, 2026. If, during the term of the Panel Monitor, the Company does not continue to remain in compliance with the Equity Rule, the Company will not be provided with the opportunity to submit a compliance plan for review by the Listing Qualifications Staff and must instead request a hearing before the Panel to address the deficiency, with such request staying any further action with respect to the Company's listing on Nasdaq pending completion of the hearing process.

On August 19, 2025, the Company received written notice from the Staff that as of June 30, 2025, the Company was non-compliant with the Equity Rule, so its securities would be suspended from trading on Nasdaq on August 28, 2025 unless it requested a hearing by August 26, 2025. On August 26, 2025, we timely requested a hearing before the Panel, which stayed the suspension of trading of the Company's securities on Nasdaq pending completion of the hearing process, which began with a hearing held on September 25, 2025 and may extend up to 30 days thereafter. At the hearing, the Company presented a detailed compliance plan, which included, among other things, the filing of this prospectus and the registration statement of which it is a part and the offering described herein. The Company is in the process of implementing its compliance plan and is considering all other options available to it to regain compliance with the Equity Rule.

On October 13, 2025, the Panel granted the Company an extension of time in which to regain compliance with all continued listing rules of the Exchange. The Panel's determination followed the Company's hearing on September 25, 2025, at which the Company presented, and the Panel considered, the Company's plan to regain compliance with the Equity Rule. The Panel granted the Company's request for continued listing on the Nasdaq, subject to, among other things, the Company demonstrating compliance with the Equity Rule by December 31, 2025, and with all other Nasdaq continued listing rules by February 16, 2026. The Company was advised that February 16, 2026, represents the full extent of the Panel's discretion to grant continued listing while the Company is non-compliant with the Nasdaq Listing Rules.

The Panel also required that the Company provide prompt notification of any significant events that occur during the exception period that may affect the Company's compliance with Nasdaq requirements. In addition, the Company was required to timely file Form 10-Q for the third quarter (which it did), and to provide notice of the status of certain elements of the Company's compliance plan. Any compliance documentation submitted by the Company will be subject to review by the Panel, which may, in its discretion, request additional information before determining that the Company has complied with the terms of the exception. The Panel has discretion to review its decision to grant an exception period within 45 calendar days after issuance of the written decision.

On January 7, 2026, the Company received written notice from the Staff that, as of December 31, 2025, the Company was compliant with the Equity Rule. The Company remains subject to the Panel's decision letter to

maintain compliance with all listing rules for continued listing through February 16, 2026. Pursuant to Listing Rule 5815(d)(4)(B), the Company will be subject to a Mandatory Panel Monitor for a period of one year from the date of this letter. If, within that one-year monitoring period, Staff finds the Company again out of compliance with the Equity Rule that was the subject of the exception, notwithstanding Rule 5810(c)(2), the Staff will issue a Delist Determination Letter. In such a case, the Company will have an opportunity to request a new hearing with the initial Panel or a newly convened Hearings Panel if the initial Panel is unavailable.

November 2025 Warrant Inducement and New Warrant Issuance

On November 19, 2025, we entered into a warrant inducement agreement with Armistice (the "Inducement Agreement"), pursuant to which Armistice agreed to immediately exercise in full (i) 167,925 warrants originally issued on November 20, 2024 which were adjusted for the Reverse Stock Split and further amended on May 15, 2025, and (ii) 1,342,280 warrants originally issued on May 15, 2025 (collectively, the "Existing Warrants").

Armistice exercised the Existing Warrants for an aggregate of 1,510,205 shares of our Common Stock at an amended exercise price of $2.66 per share, resulting in gross proceeds to the Company of approximately $4.0 million before fees and expenses. Of these shares, approximately 299,000 were issued at closing, and the remaining 1,211,205 shares were held in abeyance, subject to issuance as and when permitted pursuant to the beneficial ownership limitations contained in the Existing Warrants.

In consideration for the immediate exercise of the Existing Warrants, we issued to Armistice new unregistered Common Stock Purchase Warrants (the "New Warrants") to purchase up to 3,020,410 shares of our Common Stock (the "New Warrant Shares"). The New Warrants have an exercise price of $2.41 per share, are exercisable immediately, and expire five and one-half years after their issuance.

The New Warrants were issued in a private placement pursuant to Section 4(a)(2) of the Securities Act. The New Warrants and the New Warrant Shares have not been registered under the Securities Act, are subject to restrictions in the Inducement Agreement and may not be offered or sold absent an effective registration statement or an applicable exemption from registration.

Pursuant to the Inducement Agreement, on January 9, 2026 we filed a registration statement to register the resale of the New Warrant Shares.

Summary of Risk Factors

Investing in our securities involves a high degree of risk. You should review carefully all the information contained in this prospectus before making an investment in our securities. The following list summarizes some, but not all, of these risks. Please read the information in the section titled "Risk Factors" for a more thorough description of these and other risks.

- The issuance and sale of shares of Common Stock hereunder may cause substantial dilution and the price of our Common Stock to decline.
- The potential issuance and sale of shares of Common Stock under the Equity Purchase Agreement dated as of February 20, 2025 (the "ELOC Purchase Agreement") between the Company and Square Gate Capital Master Fund, LLC – Series 4 ("Square Gate"), and under the Common Stock Purchase Warrant dated as of November 20, 2024 (the "Purchase Warrant") issued by the Company to Armistice Capital Master Fund Ltd. ("Armistice"), may cause substantial dilution and the price of our Common Stock to decline.
- Our need for future financing may result in the issuance of additional securities, which will cause investors to experience dilution.
- We have incurred significant financial losses since our inception, and we expect to incur losses for the foreseeable future. We have no products approved for commercial sale and may never achieve or maintain profitability.

- There is substantial doubt regarding our ability to continue as a going concern based on our cash and cash equivalents as of September 30, 2025. We will need to raise additional funding, which may not be available on acceptable terms, if at all, to continue as a going concern and advance our current and any potential future product candidates. Failure to obtain capital when needed may force us to delay, limit or terminate our product development efforts or other operations. Raising additional capital may dilute our existing shareholders, restrict our operations or cause us to relinquish valuable rights.
- The Company implemented remediation of material weaknesses identified in previous reporting periods. If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable laws and regulations could be impaired, which may cause investors to lose confidence in our reported financial information and may lead to a decline in the market price of our Common Stock.
- We and our Chief Executive Officer were involved in legal proceedings with Altor BioScience, LLC and NantCell (collectively, "Altor/NantCell"). In July 2024, the parties entered a Settlement Agreement which removed some of the uncertainties as to the outcome and cost of these proceedings. However, the Company had significant obligations as a result of legal fees incurred but not paid for the defense of the Company, as well as our Chief Executive Officer. On December 30, 2025, the Company executed a settlement agreement relating to approximately $7.4 million of outstanding legal fees included in the Company's outstanding trade payables. The terms of the settlement include $2.0 million of cash settlement payments, consisting of a $500,000 payment on or before December 31, 2025 (which has been paid), and a $1.5 million payment to be made within one business day of receipt of payment of a license fee from Beijing Trimmune Biotech Co., Ltd. or its affiliates. The settlement also includes a contingent promissory note providing for certain potential payments in the event, and only to the extent, that the Company achieves certain defined milestones in the future, but such contingent promissory note does not include or represent a current liability or obligation that must be recognized by the Company as of December 31, 2025. The remaining outstanding legal fee obligations could have a negative material impact on our business and operations.
- After receiving written notice from the Nasdaq Listing Qualifications Staff that, as of June 30, 2025, the Company was not in compliance with the Equity Rule, the Company was granted a hearing on September 25, 2025, at which the Company presented a compliance plan for regaining and maintaining compliance with the Equity Rule and all listing rules for the Nasdaq Capital Market tier to a Nasdaq Hearings Panel. On January 7, 2026, the Company received written notice from the Staff that as of December 31, 2025, the Company was compliant with the Equity Rule. The Company remains subject to the Panel's decision letter to maintain compliance with all listing rules for continued listing through February 16, 2026. Pursuant to Listing Rule 5815(d)(4)(B), the Company will be subject to a Mandatory Panel Monitor for a period of one year from the date of this letter. If, within that one-year monitoring period, Staff finds the Company again out of compliance with the Equity Rule that was the subject of the exception, notwithstanding Rule 5810(c)(2), the Staff will issue a Delist Determination Letter and the Company will have an opportunity to request a new hearing with the initial Panel or a newly convened Hearings Panel if the initial Panel is unavailable.
- Our clinical trials may fail to demonstrate the safety and efficacy of our product candidates or any future product candidates, which would prevent, delay or limit the scope of regulatory approval and commercialization.
- Preliminary, topline or interim data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and are subject to audit and verification procedures that could result in material changes in the final data.
- The development and commercialization of biopharmaceutical products is subject to extensive regulation, and the regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time-consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates on a timely basis, if at all, our business will be substantially harmed.

- Clinical drug development is a lengthy and expensive process with uncertain timelines and uncertain outcomes. If clinical trials of our product candidates are prolonged or delayed, we or any collaborators may be unable to obtain required regulatory approvals, and, therefore, be unable to commercialize our product candidates on a timely basis or at all.
- Even if our product candidates obtain regulatory approval, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.
- We expect to rely on patents and other intellectual property rights to protect our technology, including product candidates and our immunotherapy platform technology, the prosecution, enforcement, defense, and maintenance of which may be challenging, time-consuming and costly. Failure to defend, protect or enforce these rights adequately, and costs and expenses associated with the same, could impact our financial condition and results of operations or otherwise harm our ability to compete and impair our business.
- We rely on third parties to manufacture our product candidates. Any failure by a third-party manufacturer to produce acceptable drug substance for us or to obtain authorization from the FDA or comparable regulatory authorities may delay or impair our ability to initiate or complete our clinical trials, obtain regulatory approvals or commercialize approved products.
- Our information technology systems, or those used by our third-party contractors or consultants, may fail or suffer security breaches, which could adversely affect our business.

Emerging Growth Company

We are an "emerging growth company," as defined in Section 2(a) of the Securities Act of 1933, as amended (the "Securities Act"), as modified by the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). As such, we are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. If some investors find our securities less attractive as a result, there may be a less active trading market for our securities and the prices of our securities may be more volatile.

We will remain an emerging growth company until the earliest of: (1) December 31, 2026 (the last day of the fiscal year following the fifth anniversary of the consummation of our initial public offering), (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.235 billion, (3) the last day of the fiscal year in which we are deemed to be a large accelerated filer, as defined in the Securities Exchange Act of 1934, as amended, (the "Exchange Act") or (4) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period. References herein to "emerging growth company" shall have the meaning associated with that term in the JOBS Act.

Smaller Reporting Company

Additionally, we are a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company until the last day of the fiscal year in which (i) the market value of our Common Stock held by non-affiliates

exceeds $250 million as of the prior June 30, or (ii) our annual revenues exceeded $100 million during such completed fiscal year and the market value of our Common Stock held by non-affiliates exceeds $700 million as of the prior June 30.

Corporate Information

Our principal executive office is located at 2929 N Commerce Parkway, Miramar, FL 33025, and our telephone number is (954) 842-2024. Our website address is www.hcwbiologics.com. Information on or accessed through our website is not incorporated into and not part of this prospectus.

OFFERING SUMMARY

Issuer:	HCW Biologics Inc.
Securities Offered by Us:	Up to 7,691,124 Units, each consisting of one share of our Common Stock (or one Pre-Funded Warrant to purchase one share of Common Stock) and one Common Stock Warrant that may be exercised to purchase one share of Common Stock. We are also offering to investors in shares that would otherwise result in the investor's beneficial ownership exceeding 4.99% of our outstanding Common Stock immediately following the consummation of this offering the opportunity to invest in Pre-Funded Warrants to purchase shares of our Common Stock each in lieu of one share of Common Stock. For each Pre-Funded Warrant purchased (without regard to any limitation on exercise set forth therein), the number of shares of Common Stock we are offering will be decreased on a one-for-one basis. Subject to limited exceptions, a holder of Pre-Funded Warrants will not have the right to exercise any portion of its Pre-Funded Warrant if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or, at the election of the holder, such limit may be increased to up to 9.99%) of the Common Stock outstanding immediately after giving effect to such exercise. Each Pre-Funded Warrant will be exercisable for one share of Common Stock. The purchase price of each Pre-Funded Warrant will be equal to the price per share of Common Stock, minus $0.0001, and the exercise price of each Pre-Funded Warrant will equal $0.0001 per share. The Pre-Funded Warrants will be immediately exercisable (subject to the beneficial ownership cap) and may be exercised at any time in perpetuity or until all of the Pre-Funded Warrants are exercised in full. This offering also relates to the shares of Common Stock issuable upon the exercise of the Pre- Funded Warrants. The Units will not be certificated or issued in stand-alone form. The shares of our Common Stock (or Pre-Funded Warrants in lieu thereof) and the Common Stock Warrants comprising the Units are immediately separable upon issuance and will be issued separately in this offering. The Common Stock Warrants will have an exercise price per share of 100% of the public offering price per Unit, will be exercisable upon Shareholder Approval and will expire on the fifth anniversary of the date of Shareholder Approval. Each warrant is exercisable for one share of Common Stock, subject to adjustment in the event of stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our Common Stock as described herein. This offering also relates to the offering of the shares of Common Stock issuable upon the exercise of the Common Stock Warrants. For more information regarding the warrants, you should carefully read the section titled "Description of Our Securities — Warrants" in this prospectus.

Assumed offering price:	$0.6501 per Unit
Shares of Common Stock outstanding as of the date of this prospectus(1):	3,279,812 shares.
Shares of Common Stock to be outstanding immediately after this offering(1):	10,970,936 shares (assuming the maximum number of shares covered by this prospectus and no issuance of Pre-Funded Warrants).
Use of Proceeds:	We currently intend to use the proceeds from this offering for funding the continued progress of our preclinical and clinical development, including the clinical trials for HCW9302, research and development costs, expansion of business development programs and identifying compounds appropriate for out-licensing arrangements or other collaborations, expansion of the Company's patent portfolio, studies required for pivotal scientific publications, and the remainder for general corporate purposes. General corporate purposes may include, among other things, working capital, capital expenditures and other general corporate purposes. See "Use of Proceeds" beginning on page 56 of this prospectus.
Risk Factors:	Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 17 of this prospectus.
Reasonable best efforts offering:	We have agreed to offer and sell the securities offered hereby directly to the purchasers. We have retained Maxim Group LLC ("Maxim" or the "placement agent") to act as our exclusive placement agent to use its reasonable best efforts to solicit offers to purchase the securities offered by this prospectus. The placement agent is not required to buy or sell any specific number or dollar amount of the securities offered hereby. See "Plan of Distribution" beginning on page 82 of this prospectus.
Transfer Agent:	The transfer agent and registrar for our Common Stock is Equiniti Trust Company, LLC.
Lock-Up Restrictions:	We and each of our directors, officers and certain stockholders are subject to certain lock-up restrictions as identified in the section titled "Plan of Distribution" beginning on page 82 of this prospectus.
Nasdaq Symbol:	Our Common Stock is listed on Nasdaq under the symbol "HCWB". There is no established trading market for the Pre-Funded Warrants, and we do not expect a trading market to develop. We do not intend to list the Pre-Funded Warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Pre-Funded Warrants will be extremely limited.

Adjustment to Outstanding Warrants:	We may enter into privately negotiated agreements with the holders of certain existing outstanding warrants to purchase up to 3,020,410 shares of Common Stock (the "Prior Warrants") to, among other things, reduce the exercise price of such Prior Warrants to the public offering price per Unit paid in this offering (or such price as approved by the stockholders). There can be no assurance that we will amend the Prior Warrants or as to the final terms of any amendments to the Prior Warrants. The reduction of the exercise price of the Prior Warrants is subject to stockholder approval in accordance with applicable Nasdaq rules.

(1) The shares of Common Stock outstanding is based on 3,279,812 shares outstanding as of February 17, 2026. The number excludes the following:

- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at $26.00 per share;
- 977,000 shares held in abeyance on behalf of Armistice Capital Master Fund Ltd.;
- 3,020,410 shares issuable upon the conversion of outstanding warrants exercisable at $2.41 per share (which exercise price may be amended to the public offering price per Unit paid in this offering, subject to stockholder approval);
- 42,845 shares issuable upon the exercise stock options of vested employee equity awards under the 2019 Equity Incentive Plan ("2019 Plan") and the 2021 Equity Incentive Plan ("2021 Plan");
- 1,383 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 80,542 shares reserved for issuance under our 2021 Plan; and
- Shares valued up to $17.0 million, which may be issued through draws on our equity line of credit.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated herein by reference contain forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. This includes, without limitation, statements regarding the financial position and the plans and objectives of management for our future operations. Such statements can be identified by the fact that they do not relate strictly to historical or current facts. When used in this prospectus, words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "strive," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements in this prospectus and in any document incorporated by reference in this prospectus, including the Annual Report filed on Form 10-K on March 28, 2025 (the "Annual Report"), may include, for example, statements about:

- management's going concern assessment;
- the occurrence of any event, change or other circumstances, including the outcome of any legal proceedings that may be instituted against us;
- financial performance and the ability to maintain the listing of our securities on Nasdaq, and the potential liquidity and trading of our securities;
- the sufficiency of our existing cash and cash equivalents to fund our future operating expenses and capital expenditure requirements and the risk of disruption to our current plans and operations;
- our ability to obtain funding for our operations, including funding necessary to develop and commercialize our drug candidates;
- timing, costs and outcome of regulatory review, and impact on our ability to receive FDA clearance for clinical trials;
- the ability to secure clinical sites, enroll patients, and initiate clinical trials;
- number of trials needed to obtain clinical approval;
- the ability of our clinical trials to demonstrate safety and efficacy of our drug candidates, and other positive results;
- the success, cost and timing of our development activities, preclinical studies and clinical trials;
- the timing and focus of our future clinical trials, and the reporting of data from those trials;
- our plans relating to commercializing our drug candidates, if approved;
- our plans and ability to establish sales, marketing and distribution infrastructure to commercialize any drug candidates for which we obtain approval;
- our ability to attract and retain key scientific and clinical personnel;
- our ability to contract with third-party suppliers and manufacturers and their ability to perform adequately;
- our reliance on third parties to conduct clinical trials of our drug candidates, and for the manufacture of our drug candidates for preclinical studies and clinical trials;
- our ability to establish our own manufacturing facilities domestically;
- our ability to expand our drug candidates into additional indications and patient populations;
- the success of competing therapies that are or may become available;

- the beneficial characteristics, safety and efficacy of our drug candidates;
- political and regulatory developments in the United States and other jurisdictions;
- our ability to obtain and maintain regulatory approval of our drug candidates, and any related restrictions, limitations and/or warnings in the label of any approved drug candidate;
- our plans relating to the further development and manufacturing of our drug candidates, including additional indications for which we may pursue;
- cost of maintaining, expanding, and enforcing our intellectual property rights;
- our plans and ability to obtain or protect intellectual property rights;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our drug candidates and technology;
- potential claims relating to our intellectual property;
- impact of litigation, regulatory inquiries, or investigations, as well as cost to indemnify our officers and directors against third-party claims related to our patents and other intellectual property;
- cost and timing of buildout of our new headquarters, including a biologics manufacturing facility, including risks of balances due to general contractor and subcontractors, cost overruns and delays, and ability to obtain additional funding required to complete the project;
- our ability to enter out-license agreements for the development and commercialization of the Company's non-core assets;
- cost and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive regulatory approval; and
- other factors disclosed under the section entitled "Risk Factors" in this prospectus.

Forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate, and management's beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control, including those described in the section titled "Risk Factors" and elsewhere in this prospectus and the documents incorporated by reference into this prospectus.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Accordingly, you should not place undue reliance on forward-looking statements as predictions of future events. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this prospectus, the documents incorporated by reference into this prospectus, any free writing prospectus and the documents that we reference in this prospectus and have filed with the SEC, as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the risks described below and incorporated by reference herein before making an investment decision. Our business, prospects, financial condition, or operating results could be harmed by any of these risks, as well as other risks not currently known to us or that we currently consider immaterial. The trading price of our securities could decline due to any of these risks, and, as a result, you may lose all or part of your investment. Certain statements in "Risk Factors" are forward- looking statements. See "Cautionary Statement Regarding Forward-Looking Statements."

Risks Related to this Offering

This is a reasonable best efforts offering, with no minimum amount of securities required to be sold, and we may sell fewer than all of the securities offered hereby.

The placement agent has agreed to use its reasonable best efforts to solicit offers to purchase the shares of our Common Stock in this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to complete this offering. As there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth in this prospectus. We may sell fewer than all of the securities offered hereby, which would significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell all of the shares of our Common Stock offered in this offering. The success of this offering will impact our ability to use the proceeds to execute our business plans. We may have insufficient capital to implement our business plans, potentially resulting in greater operating losses or dilution unless we are able to raise capital from alternative sources.

Investors in this offering will experience immediate and substantial dilution in the book value of their investment.

The public offering price will be substantially higher than the net tangible book value per share of our outstanding shares of common stock. As a result, investors in this offering will incur immediate dilution of $0.16 per share based on the assumed public offering price of $0.6501 per Unit. Investors in this offering will pay a price per share that substantially exceeds the book value of our assets after subtracting our liabilities. To the extent outstanding stock options or warrants are exercised, new stock options are issued or we issue additional shares of common stock in the future, there will be further dilution to new investors. As a result of the dilution to investors purchasing common stock in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. See "Dilution" for a more complete description of how the value of your investment will be diluted upon the completion of this offering.

Our management will have broad discretion over the use of the proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion over the use of our net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. We currently intend to use the net proceeds from this offering for funding the continued progress of our preclinical and clinical development, including the clinical trials for HCW9302, research and development costs, expansion of business development programs and identifying compounds appropriate for out-licensing arrangements or other collaborations, expansion of the Company's patent portfolio, studies required for pivotal scientific publications, and other general corporate purposes, including for working capital. Our management might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering.

We will seek to raise additional funds, finance acquisitions or develop strategic relationships by issuing securities that would dilute your ownership. Depending on the terms available to us, if these activities result in significant dilution, it may negatively impact the trading price of our common stock.

Any additional financing that we secure may require the granting of rights, preferences or privileges senior to, or *pari passu* with, those of our Common Stock. Any issuances by us of equity securities may be at or below the prevailing market price of our Common Stock and in any event may have a dilutive impact on your ownership interest, which could cause the market price of our Common Stock to decline. We may also raise additional funds through the incurrence of debt or the issuance or sale of other securities or instruments senior to our shares of Common Stock, which may be highly dilutive. The holders of any securities or instruments we may issue may have rights superior to the rights of holders of our Common Stock. If we experience dilution from the issuance of additional securities and we grant superior rights to new securities over holders of our Common Stock, it may negatively impact the trading price of our common stock and you may lose all or part of your investment.

The Common Stock Warrants and the Pre-Funded Warrants are speculative in nature and there is not expected to be an active trading market for the warrants.

The Pre-Funded Warrants offered in this offering do not confer any rights of Common Stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of our Common Stock at a fixed price for a limited period of time. Specifically, commencing on the date of issuance, holders of Pre-Funded Warrants may exercise their right to acquire the Common Stock and pay an exercise price of $0.0001 per share. The Pre-Funded Warrants do not expire. In addition, there is no established trading market for the Pre-Funded Warrants and we do not expect an active trading market to develop. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited.

Holders of the Common Stock Warrants and the Pre-Funded Warrants will have no rights as a holder of Common Stock until they acquire our Common Stock.

Until holders of the Pre-Funded Warrants acquire shares of our Common Stock upon exercise of the Pre-Funded Warrants, the holders will have no rights with respect to shares of our Common Stock issuable upon exercise of the Pre-Funded Warrants. Upon exercise of the Pre-Funded Warrants, the holder will be entitled to exercise the rights of a holder of Common Stock as to the security exercised only as to matters for which the record date occurs after the exercise.

The Common Stock Warrants are not exercisable until Shareholder Approval and may not have any value.

Under Nasdaq listing rules, the Common Stock Warrants being offered in this offering are not exercisable without Shareholder Approval for the issuance of shares issuable upon exercise of such Common Stock Warrants. While we intend to use reasonable best efforts to seek Shareholder Approval to permit the issuance of shares of common stock issuable upon exercise of the Common Stock Warrants as applicable, there is no guarantee that Shareholder Approval will ever be obtained. The Common Stock Warrants will be exercisable commencing on the date Shareholder Approval is obtained, at an exercise price per share of $. If the price of a share of our common stock does not exceed the exercise price of the Common Stock Warrants during the period when the Common Stock Warrants are exercisable, the Common Stock Warrants may not have any value. If we are unable to obtain Shareholder Approval, the Common Stock Warrants will not be exercisable and therefore would have no value.

In addition, we may incur substantial cost, and management may devote substantial time and attention, in attempting to obtain Shareholder Approval of the issuance of shares of common stock upon exercise of the Common Stock Warrants issued in this offering.

Provisions of the Common Stock Warrants could discourage an acquisition of us by a third party.

Certain provisions of the Common Stock Warrants could make it more difficult or expensive for a third party to acquire us. The Common Stock Warrants prohibit us from engaging in certain transactions constituting

"fundamental transactions" unless, among other things, the surviving entity assumes our obligations under the Common Stock Warrants. These and other provisions of the warrants offered by this prospectus could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to you.

Risks Related to HCWB's Business and Industry

There is substantial doubt about our ability to continue as a going concern. We will need to raise additional funding, even after this offering, whether or not the maximum offering amount is raised, which may not be available on acceptable terms, if at all to continue as a going concern and advance our product candidates. Failure to obtain capital when needed may force us to delay, limit or terminate our product development efforts or other operations. Raising additional capital may dilute our existing shareholders, restrict our operations or cause us to relinquish valuable rights.

There is substantial doubt regarding our ability to continue as a going concern based only on the cash and cash equivalents as of September 30, 2025. We continuously evaluate whether there are conditions and events, considered in the aggregate, which raise substantial doubt about our ability to continue as a going concern within one year after the date that financial statements are issued. When substantial doubt exists based on this analysis, management evaluates whether the mitigating effect of our plans to raise capital or reduce costs sufficiently alleviates substantial doubt about our ability to continue as a going concern.

We are at the clinical development stage of our Company with no commercial revenues from the products we are developing, and it is possible we will never generate revenue or profit from product sales. As of September 30, 2025, we had cash and cash equivalents of $1.1 million and there was substantial doubt about our ability to continue as a going concern for at least 12 months from the issuance date of the financial statements appearing in the Quarterly Report, whether or not we curtail efforts with respect to certain of our current and future product candidates. We will require significant additional funding to advance any of our product candidates beyond the short term and to sustain our operations.

We may also seek to raise such capital through public or private equity, debt financing business development transactions, or other forms of financing. Raising funds in the current economic environment may be challenging, and such financing may not be available in sufficient amounts or on acceptable terms, if at all. The terms of any financing may harm existing stockholders. The issuance of additional securities, whether equity or debt, or the possibility of such issuance, may cause the market price of our shares to decline. The sale of additional equity or convertible securities may dilute the ownership of existing stockholders. Incurring debt would result in increased fixed payment obligations, and we may agree to restrictive covenants, such as limitations on our ability to incur additional debt or limitations on our ability to acquire, sell or license intellectual property rights that could impede our ability to conduct our business.

If we or any collaborators we work with in the future are unable to successfully develop and commercialize our product candidates, or experience significant delays in doing so, our business, financial condition, and results of operations will be materially adversely affected.

Our ability to generate product and royalty revenues, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates, which may never occur. We currently generate no revenue from sales of any products, and we may never be able to develop or commercialize a marketable product. Each of our product candidates and any future product candidates we develop will require significant clinical development, management of clinical, preclinical, and manufacturing activities, regulatory approval in multiple jurisdictions, establishing manufacturing supply, including commercial manufacturing supply, and require us to build a commercial organization and make substantial investment and significant marketing efforts before we generate any revenue from product sales. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates.

If we do not successfully execute or address these matters in a timely manner or at all, we could experience significant delays or an inability to successfully develop and commercialize our product candidates, which would materially adversely affect our business, financial condition, and results of operations.

A key element of our strategy is to enter into out-licensing arrangements for certain rights to internally-developed molecules that we do not intend to develop into lead product candidates on our own or together with co-development partners. We may not be able to identify licensees, which could lower any return on our investments and increase our need for external funding.

Since we have already generated over 50 immunotherapeutic molecules, and plan to develop additional molecules, through our immunotherapy platform technologies, our strategy includes funding operations in part through revenues derived from out-licensing molecules that are outside our oncological and anti-aging focus to third parties. Despite our efforts, we may be unable to enter into such licensing agreements. Supporting diligence activities conducted by potential licensors and negotiating the financial and other terms of a license agreement are long and complex processes with uncertain results, and we may fail to derive any revenues from these activities. If we fail to successfully out-license to third parties internally developed molecules that are not part of the Company's in-house clinical development programs, our revenues and return on our research and development activities would be negatively affected and we could be required to seek additional funding.

The success of our business development efforts, including license agreements, depends on our ability to realize the anticipate benefits of these transactions and is subject to numerous risks and uncertainties, many of which are outside of our control.

Our potential licensors intend to develop alternative products or pursue alternative technologies either on their own or in collaboration with others, potentially resulting in our receiving no future milestone or royalty payments under any such licenses. We enter exclusive worldwide license arrangements pursuant to which licensors will develop certain immunotherapy products under which we may earn upfront license fees, additional milestone or royalty payments, but there can be no assurance that licensors will perform as required under the terms of the license agreements or will be successful in commercializing any products related to this license or that any such payments will ever be earned.

We view our business development activities as an enabler of our strategy for clinical development activities and seek to generate growth by pursuing selected opportunities that have the potential to strengthen our clinical development program and provide a source of capital for our operations, including in-house development programs. The success of our business development activities is dependent on the availability of licensing partners, as well as being provided sufficient information that will enable us to accurately evaluate an opportunity.

The success of our business development transactions also depends on our ability to realize the anticipated benefits of these transactions and is subject to numerous risks and uncertainties, many of which are outside of our control. Unsuccessful clinical trials, regulatory hurdles, new information and commercialization challenges, inability to raise the capital necessary to execute the clinical development program, among other factors, may adversely impact revenue and income contribution from business development transactions and may lead to an adverse impact on our business. While we seek to mitigate risks and liabilities through, among other things, due diligence, we may be exposed to risks and liabilities as a result of business development transactions. There is no assurance that we will be able to enter into strategic business relationships on favorable terms with desired positive outcomes that are accretive to our business.

We expect to continue to expand our capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of September 30, 2025, we had 36 full-time employees. We expect to experience continued growth in the number of our employees and the scope of our operations, particularly in the areas of drug development and

regulatory affairs. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational, and financial systems, expand our facilities, and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a public company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

In addition, future growth imposes significant added responsibilities on members of management, including: identifying, recruiting, integrating, maintaining, and motivating additional employees; managing our internal development efforts effectively, including the clinical and FDA review process for our product candidates, while complying with our contractual obligations to contractors and other third parties; and improving our operational, financial and management controls, reporting systems, and procedures.

We currently rely on certain independent organizations, advisors, and consultants to provide certain services, including strategic, financial, business development services, as well as certain aspects of regulatory approval, clinical management, manufacturing, and preparation for a potential commercial launch. There can be no assurance that the services of independent organizations, advisors, and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants or contract manufacturing organizations is compromised for any reason, our clinical trials may be extended, delayed, or terminated, and we may not be able to obtain regulatory approval of our product candidates or otherwise advance our business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all.

Our business and operations are subject to risks related to climate change.

The long-term effects of global climate change present risks to our business. Extreme weather or other conditions caused by climate change could adversely impact our supply chain and the operation of our business, which is geographically subject to higher incidents of climate events (such as hurricanes and other aggressive weather patterns). Such conditions could result in physical damage to our Miramar headquarters, clinical trial materials, clinical sites, or the facilities of our third-party manufacturing partners. These events could adversely affect our operations and our financial performance. The potential impacts of climate change may also include increased operating costs associated with additional regulatory requirements and investments in reducing energy, water use and greenhouse gas emissions.

Risks Related to our Financial Position and Need for Additional Capital

We have incurred significant losses since our inception and we expect to incur losses for the foreseeable future. We have no products approved for commercial sale and may never achieve or maintain profitability.

Since our inception, we have devoted most of our financial resources and all of our efforts to research and development, including preclinical studies and our clinical trials, and have incurred significant operating losses. In addition, the Company and Dr. Wong, our Founder and Chief Executive Officer, were parties in an extended arbitration, which was ongoing for over a year, during which time the Company recognized legal fees of nearly $22.0 million, net of $2.0 million insurance reimbursement, for its own defense and the defense of Dr. Wong. For the nine months ended September 30, 2024 and 2025, we reported a net loss of $26.7 million and $8.7 million, respectively. These losses are inclusive of reserve for credit losses and other expenses of $1.3 million and nil for the nine months ended September 30, 2024 and 2025, respectively. As of September 30, 2025, we had $1.1 million in cash and cash equivalents, in the balance sheet of our unaudited financial statements included in the Quarterly Report. From inception to September 30, 2025, we incurred cumulative net losses of $106.5 million. To date, we have financed our operations primarily through the sale of our redeemable preferred

stock (all of which converted to Common Stock upon the effective date of our initial public offering, or IPO); payments received under our exclusive worldwide license (the "Wugen License") with Wugen, Inc. ("Wugen") for certain rights to two of our internally-developed molecules; proceeds from our IPO; a first lien mortgage of $6.5 million; proceeds from a Paycheck Protection Program ("PPP") loan obtained through the Coronavirus Aid, Relief and Economic Security Act (which was forgiven); issuance of senior secured notes; and sale of Common Stock and warrants in private placements and direct registered offerings. Based on our current operating plans, we believe that our cash and cash equivalents as of September 30, 2025, will not be sufficient for the Company to continue as a going concern for at least one year from the issuance date of the financial statements appearing in the Quarterly Report.

Our losses have resulted principally from expenses incurred in the research and development of our product candidates and from management and administrative costs and other expenses that we have incurred while building our business infrastructure, as well as from the significant expenses we have incurred defending ourselves in the prior dispute with Altor/NantCell and advancing legal expenses of Dr. Wong, each as described further below. We expect to continue to incur significant operating losses for the foreseeable future. The only revenue we have generated to date relates to the clinical material supply agreement and our Wugen License, which, upon a request from Wugen, we voluntarily suspended for a period of one year beginning on May 29, 2025 (during which time we have the right to terminate the license in order to enter other business development transactions related to the licensed molecules). We are currently in active discussions for a license agreement with major biologics manufacturing companies who are interested in licensing molecules to use as reagents in the manufacturing process for CAR-T therapies. We have not generated any revenues from product sales. We anticipate that our expenses will increase substantially as we initiate preclinical and clinical studies, scale up our manufacturing process and capabilities to support our clinical studies and grow to scale.

We have no products for which we have obtained marketing approval and have not generated any revenue from product sales. Even if we obtain marketing approval for, and are successful in commercializing, one or more of our product candidates, we expect to incur substantial additional research and development and other expenditures to develop and market additional product candidates or to expand the approved indications of any marketed product. We may encounter unforeseen expenses, difficulties, complications, delays, and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

To become and remain profitable, we must succeed in developing and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, discovering and developing additional product candidates, obtaining regulatory approval for any product candidates that successfully complete clinical trials, accessing manufacturing capacity, establishing marketing capabilities, and ultimately selling any products. We may never succeed in these activities and, even if we do, we may never generate revenue that is sufficient to achieve profitability.

Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Since our inception in 2018, we have devoted a significant portion of our resources to identifying and developing our product candidates emerging from our internally-developed immunotherapy platform technologies, our other research and development efforts, building our intellectual property portfolio, raising capital, and providing general and administrative support for these operations. We have not yet demonstrated our ability to successfully complete clinical trials, obtain regulatory approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Additionally, we expect our financial condition and operating results to continue to fluctuate significantly from period to period due to a variety of factors, many of which are beyond our control. Consequently, any predictions you may make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

We will require additional funding to complete development of our product candidates and commercialize our products, if approved. However, this additional financing may not be available on acceptable terms, or at all. If we are unable to raise capital when needed, we could be forced to delay, reduce, or eliminate our product development programs or commercialization efforts.

Our operations have consumed significant amounts of cash since inception. As of September 30, 2025, we held $1.1 million of cash and cash equivalents and there was substantial doubt about our ability to continue as a going concern for at least 12 months from the issuance date of the financial statements appearing in the Annual Report. We expect our expenses to increase in connection with our ongoing clinical development activities, particularly as we continue to initiate clinical trials of, and seek marketing approval for, our product candidates.

In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will need to obtain substantial additional funding for our continuing operations. If we are unable to raise capital when needed or on attractive terms, we may be forced to:

- delay, limit, reduce, or terminate preclinical studies, clinical trials, or other research and development activities, or eliminate one or more of our development programs altogether;
- delay or terminate our plan to build and renovate our manufacturing facility; or
- delay, limit, reduce, or terminate our efforts to establish manufacturing capacity, establish sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates, or reduce our flexibility in developing or maintaining our sales and marketing strategy.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

We expect our expenses to increase in connection with our planned operations. Unless and until we can generate a substantial amount of revenue from our technologies or product candidates, we will seek to finance our future cash needs through equity offerings, royalty-based or debt financings, collaborations, licensing arrangements or other sources, or any combination of the foregoing. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans.

To the extent that we raise additional capital through the sale of Common Stock, convertible securities or other equity securities, stockholders' interests may be diluted, and the terms of these securities could include liquidation or other preferences and anti-dilution protections that could adversely affect our stockholders' rights. In addition, new debt financing, if available, may result in fixed payment obligations and may involve agreements that include restrictive covenants that further limit our ability to take specific actions, such as incurring additional debt, making capital expenditures, creating liens, redeeming stock or declaring dividends, which could adversely impact our ability to conduct our business. In addition, securing financing could require a substantial amount of time and attention from our management and may divert a disproportionate amount of their attention away from day-to-day activities, which may adversely affect their ability to oversee the development and potential future commercialization of our product candidates.

If we raise additional funds through collaborations or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or grant licenses on terms that may not be favorable to us.

On January 7, 2026, the Company received written notice from the Staff that as of December 31, 2025, the Company was compliant with the Equity Rule. The Company remains subject to the Panel's decision letter to maintain compliance with all listing rules for continued listing through February 16, 2026.

On June 26, 2025, we received formal notice from the Nasdaq Listing Qualifications Staff (the "Staff") that we were in compliance with Listing Rule 5550(b)(1) (the "Equity Rule") for continued listing of our securities on

the Nasdaq Capital Market tier. We were also notified that we will remain subject to a "Panel Monitor," as that term is defined in Nasdaq Listing Rule 5815(d)(4)(B), for a period of one year from the date of the Nasdaq notice, through June 23, 2026. If, during the term of the Panel Monitor, we do not continue to remain in compliance with the Equity Rule, we will not be provided with the opportunity to submit a compliance plan for review by the Staff and must instead request a hearing before the Nasdaq Hearing Panel (the "Panel") to address the deficiency, with such request staying any further action with respect to the listing of our securities on Nasdaq pending completion of the hearing process.

On August 19, 2025, we received written notice from the Staff that as of June 30, 2025, we were non-compliant with the Equity Rule, so our securities would be suspended from trading on Nasdaq on August 28, 2025 unless we request a hearing by August 26, 2025. On August 26, 2025, we timely requested a hearing before the Panel, which stayed the suspension of trading of our securities on Nasdaq pending completion of the hearing process, which included a hearing held before the Panel on September 25, 2025 at which the Company presented a detailed compliance plan, including the filing of the registration statement that includes this prospectus and the offering contemplated herein.

On October 13, 2025, the Panel granted the Company an extension of time in which to regain compliance with all continued listing rules of the Exchange. The Panel's determination followed the Company's hearing on September 25, 2025, at which the Company presented, and the Panel considered, the Company's plan to regain compliance with the Equity Rule. The Panel granted the Company's request for continued listing on the Nasdaq, subject to, among other things, the Company demonstrating compliance with the Equity Rule by December 31, 2025, and with all other Nasdaq continued listing rules by February 16, 2026. The Company was advised that February 16, 2026, represents the full extent of the Panel's discretion to grant continued listing while the Company is non-compliant with the Nasdaq Listing Rules.

The Panel also required that the Company provide prompt notification of any significant events that occur during the exception period that may affect the Company's compliance with Nasdaq requirements. In addition, the Company was required to timely file Form 10-Q for the third quarter (which it did), and to provide notice of the status of certain elements of the Company's compliance plan. Any compliance documentation submitted by the Company will be subject to review by the Panel, which may, in its discretion, request additional information before determining that the Company has complied with the terms of the exception. The Panel has discretion to review its decision to grant an exception period within 45 calendar days after issuance of the written decision.

On January 7, 2026, the Company received written notice from the Staff that as of December 31, 2025, the Company was compliant with the Equity Rule. The Company remains subject to the Panel's decision letter to maintain compliance with all listing rules for continued listing through February 16, 2026. Pursuant to Listing Rule 5815(d)(4)(B), the Company will be subject to a Mandatory Panel Monitor for a period of one year from the date of this letter. If, within that one-year monitoring period, Staff finds the Company again out of compliance with the Equity Rule that was the subject of the exception, notwithstanding Rule 5810(c)(2), the Staff will issue a Delist Determination Letter and the Company will have an opportunity to request a new hearing with the initial Panel or a newly convened Hearings Panel if the initial Panel is unavailable.

The Company's balance sheet has liabilities that will require payment, and use of funds for this purpose will make less funding available for operations and clinical development.

Included in the Company's balance sheet as of September 30, 2025, are $19.4 million of obligations included in accounts payable that represent amounts past due. These include $12.3 million due for legal fees incurred as a result of mounting a defense for the Company and our Chief Executive Officer in a long-running arbitration proceeding that was settled on July 13, 2024. After year end, we received a $2.0 million insurance payment which was used to offset obligations for legal fees for our Chief Executive Officer. Also included in outstanding obligations is $2.7 million of obligations included in accounts payable for amounts owed for construction of a manufacturing facility that the Company is building at a property it owns in Miramar, Florida (the "Property").

As of September 30, 2025, certain subcontractors had filed mechanics liens related to unpaid invoices issued in connection with the facility. On January 22, 2025, the Company entered into a forbearance agreement with BE&K Building Group ("BE&K"), its general contractor, to allow the Company until March 31, 2025 to continue efforts to find the financing required to complete the construction and renovation of the property. Pursuant to the forbearance agreement, the Company made an initial payment of $1.0 million in partial satisfaction of amounts owing to BE&K and its subcontractors. As the Company reported in a Form 8-K, on April 17, 2025, the Company received a summons and a copy of a complaint filed by BE&K in the Circuit Court of the 17th Judicial Circuit in and for Broward County, Florida (the "BE&K Complaint"). Other Defendants named in the BE&K Complaint who are subcontractors elected to file counterclaims and cross-claims as part of their responses to the BE&K Complaint. To our knowledge as of the date hereof, Cogent Bank, also named as a Defendant in the BE&K Complaint, has not elected to take legal action at this time. In addition, on April 28, 2025, the Company received a summons and a copy of a complaint filed by Fisk Electric Company (which is a defendant in the BE&K Complaint) in the Circuit Court of the 17th Judicial Circuit in and for Broward County, Florida (the "Fisk Complaint") against the Company, BE&K, and the other defendants in the BE&K Complaint. On August 8, 2025, B&I Contractors, Inc., one of the defendants in the BE&K Complaint, filed a motion for summary judgment (the "MSJ") as to the Count I (Foreclosure of Construction Lien). The Company has responded to the BE&K and Fisk Complaints and cross-claims and filed a timely response to the B&I MSJ. The cases are being consolidated, and a Case Management conference was held. The B&I MSJ is scheduled to be heard on February 19, 2026.

Risks Related to Ownership of Our Common Stock

Our stock price may be volatile or may decline regardless of our operating performance, resulting in substantial losses for investors.

The market price of our Common Stock may be highly volatile and may fluctuate substantially as a result of a variety of factors, some of which are related in complex ways. The market price of our Common Stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including the factors described in this "Risk Factors" section included in the Annual Report.

Our principal stockholders and management own a significant percentage of our stock and may be able to exert control over matters subject to stockholder approval.

As of September 30, 2025, our executive officers, directors and their respective affiliates beneficially owned approximately 23.5% of our outstanding voting stock (excluding any warrants that may be exercised for shares of Common Stock or stock options exercisable within 60 days of such date held by such persons). Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to impact all matters requiring stockholder approval, in matters where they are eligible to vote. For example, these stockholders may be able to control or influence elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our Common Stock that you may feel are in your best interest as one of our stockholders.

If we fail to maintain proper and effective internal controls over financial reporting, our ability to produce accurate and timely financial statements could be impaired.

Pursuant to Section 404 of the Sarbanes-Oxley Act, our management was required to report upon the effectiveness of our internal control over financial reporting beginning with the annual report for our fiscal year ending December 31, 2022. When we lose our status as an "emerging growth company" and a "smaller reporting company," and become an "accelerated filer" or a "large accelerated filer," our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial

reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we have implemented and will continue to implement additional financial and management controls, reporting systems and procedures and we have hired and intend to continue to hire additional accounting and finance staff.

We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations, or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our Common Stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC, or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Risks Related to the Development and Clinical Testing of Our Product Candidates

Our clinical trials may fail to demonstrate the safety and efficacy of our product candidates or any future product candidates, which would prevent or delay or limit the scope of regulatory approval and commercialization.

To obtain the requisite regulatory approvals to market and sell any product candidates, we must demonstrate through extensive preclinical studies and clinical trials that our investigational drug products are safe and effective for use in each targeted indication. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical development process. Most product candidates that begin clinical trials are never approved by regulatory authorities for commercialization. We may be unable to establish clinical endpoints that applicable regulatory authorities would consider clinically meaningful, and a clinical trial can fail at any stage of testing.

Further, the process of obtaining regulatory approval is expensive, often takes many years following the commencement of clinical trials, and can vary substantially based upon the type, complexity, and novelty of the product candidates involved, as well as the target indications, patient population, and regulatory agency. Prior to obtaining approval to commercialize our product candidates and any future product candidates in the United States or abroad, we, our collaborators or our potential future collaborators must demonstrate with evidence from adequate and well-controlled clinical trials and to the satisfaction of the FDA or comparable foreign regulatory authorities, that such product candidates are safe and effective for their intended uses.

Clinical trials that we conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates. In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols, and the rate of dropout among clinical trial participants. If the results of our clinical trials are inconclusive with respect to the efficacy of our product candidates, if we do not meet the clinical endpoints with statistical and clinically meaningful significance, or if there are safety concerns associated with our product candidates, we may be delayed in obtaining marketing approval, if at all. Additionally, any safety concerns observed in any one of our clinical trials, including adverse safety events in later trials that were not observed in prior trials, could limit the prospects for regulatory approval of that product candidate or other product candidates in any indications.

Even if the trials are completed and successful, clinical data are often susceptible to varying interpretations and analyses, and we cannot guarantee that the FDA or comparable foreign regulatory authorities will interpret the

results as we do, and more trials could be required before we submit our product candidates for approval. We cannot guarantee that the FDA or comparable foreign regulatory authorities will view our product candidates as demonstrating substantial evidence of efficacy even if positive results are observed in clinical trials or having a positive benefit-risk profile. Moreover, results acceptable to support approval in one jurisdiction may be deemed inadequate by another regulatory authority to support regulatory approval in that other jurisdiction. To the extent that the results of the trials are not satisfactory to the FDA or comparable foreign regulatory authorities for support of a marketing application, approval of our product candidates and any future product candidates may be significantly delayed, or we may be required to expend significant additional resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates. Even if regulatory approval is secured for a product candidate, the terms of such approval may limit the scope and use of the specific product candidate, which may also limit its commercial potential.

Preliminary, topline or interim data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose preliminary or topline data from our preclinical studies and clinical trials, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations, and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available. Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions, or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product, and our company in general.

From time to time, we may also disclose data from planned interim analyses of our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available and could result in volatility in the price of our Common Stock. Adverse differences between interim data and final data could significantly harm our business, operating results, prospects, or financial condition.

Clinical drug development is a lengthy and expensive process with uncertain timelines and uncertain outcomes. If clinical trials of our product candidates are prolonged or delayed, we or any collaborators may be unable to obtain required regulatory approvals, and therefore be unable to commercialize our product candidates on a timely basis or at all.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Product candidates in later stages of clinical trials may fail to produce the same results or to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. Our future clinical trial results may not be successful.

To date, we have not completed any clinical trials required for the approval of our product candidates. We may experience delays in our clinical trials, and we do not know whether planned clinical trials will begin on time, need to be redesigned, enroll patients on time, or be completed on schedule, if at all. These clinical trials can be delayed, suspended, or terminated for a variety of reasons, including but not limited to delays in or failure to obtain regulatory authorization to commence a trial and IRB approval at each site, to reach agreement on acceptable terms with prospective clinical trial sites, or to recruit and enroll suitable patients to participate in a

trial. In addition, the results of preclinical and early clinical trials of our product candidates may not be predictive of the results of our later-stage clinical trials. For example, while we may believe certain results in patients, such as stable disease, suggest encouraging clinical activity, stable disease is not considered a response for regulatory purposes in an endpoint assessing objective response rate. In addition, even if the regulatory authorities agree with the design and implementation of the clinical trials set forth in an IND or similar application, we cannot guarantee that such regulatory authorities will not change their requirements in the future. These considerations also apply to new clinical trials we may submit as amendments to existing INDs.

Clinical trials must be conducted in accordance with the FDA's and other applicable regulatory authorities' legal requirements, regulations or guidelines, and are subject to oversight by these governmental agencies and IRBs or Ethics Committees at the medical institutions where the clinical trials are conducted. We could encounter delays if a clinical trial is put on hold by the FDA or other regulatory authorities, suspended or terminated by us, by the IRBs or Ethics Committees of the institutions in which such trials are being conducted or by the Data Review Committee or Data Safety Monitoring Board for such trial. For example, in November 2024, the FDA placed a full clinical hold on the Phase 1 study of HCW9302 due to insufficient information regarding chemistry, manufacturing and controls, which prevented us from initiating the study until the FDA lifted the clinical hold in January 2025 after finding our complete response to be satisfactory. If we experience further delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process, and jeopardize our ability to commence product sales and generate revenues. Significant clinical trial delays could also allow our competitors to bring products to market before we do or shorten any periods during which we have the exclusive right to commercialize our product candidates and impair our ability to commercialize our product candidates and may harm our business and results of operations.

In addition, clinical trials must be conducted with supplies of our product candidates produced under cGMP requirements and other regulations. Furthermore, we rely on clinical trial sites to ensure the proper and timely conduct of our clinical trials and while we have agreements governing their committed activities, we have limited influence over their actual performance. We depend on our collaborators and on medical institutions to conduct our clinical trials in compliance with GCP requirements. To the extent our collaborators fail to enroll participants for our clinical trials, fail to conduct the study in accordance with GCP, or are delayed for a significant time in the execution of trials, including achieving full enrollment, we may be affected by increased costs, program delays, or both, which may harm our business. In addition, clinical trials that are conducted in countries outside the United States may subject us to further delays and expenses as a result of increased shipment costs, and additional regulatory requirements, as well as expose us to risks associated with clinical investigators who are unknown to the FDA, and different standards of diagnosis, screening, and medical care.

Our lead product candidate, HCW9302, has been cleared by the FDA to initiate a first-in-human Phase 1 dose escalation clinical trial to evaluate HCW9302 in patients with moderate-to-severe alopecia areata, a common autoimmune disease in humans that currently has no curative FDA-approved treatments. Our ability to advance development of HCW9302 depends on timely completion of current clinical studies, successfully meeting those studies' objectives, including dose finding and/or optimization for the Phase 2 evaluation, and obtaining FDA authorization to proceed to Phase 2 trials. If the FDA does not allow our Phase 2 clinical trials to proceed, we may be required to undertake additional IND-enabling activities or dose finding activities, which would result in further delay and additional costs. If we experience delays in the progression and completion of our clinical trials for HCW9302, or if we terminate a clinical trial prior to completion, the commercial prospects of such product candidate could be harmed, and our ability to generate revenues from the product candidate may be delayed. In addition, any delays in our clinical trials would require us to store material which could expose us to inventory risk, increased costs, slow down in development and approval process, as well as jeopardize our ability to commence product sales and generate revenues. Significant delays in commencing clinical trials could also allow our competitors to bring products to market before we do or shorten any periods during which we have the

exclusive right to commercialize our product candidates. Any of these occurrences may harm our business, financial condition and results of operations. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates and may harm our business and results of operations.

We may become exposed to costly and damaging product liability claims, either when testing our product candidates in the clinic or at the commercial stage, and our product liability insurance may not cover all damages from such claims.

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing, and use of pharmaceutical products. While we currently have no products that have been approved for commercial sale, the current and future use of product candidates by us and our partners in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies, our partners, or others selling such products. Any claims against us, regardless of their merit, could be difficult and costly to defend and could materially adversely affect the market for our product candidates or any prospects for commercialization of our product candidates.

Although the clinical trial process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If any of our product candidates were to cause adverse side effects during clinical trials or after approval of the product candidate, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates.

Even successful defense against product liability claims would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in: decreased demand for our product candidates; injury to our reputation; withdrawal of clinical trial participants; initiation of investigations by regulators; costs to defend the related litigation; a diversion of management's time and our resources; substantial monetary awards to trial participants or patients; product recalls, withdrawals or labeling, marketing or promotional restrictions; loss of revenue; exhaustion of any available insurance and our capital resources; the inability to commercialize any product candidate; and a decline in our share price.

Although we maintain adequate product liability insurance for our product candidates, it is possible that our liabilities could exceed our insurance coverage. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for any of our product candidates. However, we may be unable to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims, and our business operations could be impaired.

Risks Related to Our Regulatory Environment

The development and commercialization of biopharmaceutical products is subject to extensive regulation, and the regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time- consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates on a timely basis if at all, our business will be substantially harmed.

The clinical development, manufacturing, labeling, packaging, storage, recordkeeping, advertising, promotion, export, import, marketing, distribution, adverse event reporting, including the submission of safety and other post-marketing information and reports, and other possible activities relating to our product candidates are subject to extensive regulation. In the United States, marketing approval of a biologic requires the submission of a BLA to the FDA, and we are not permitted to market any product candidate in the United States until we obtain

approval from the FDA of the BLA for that product candidate. A BLA must be supported by extensive clinical and preclinical data, as well as extensive information regarding pharmacology, chemistry, manufacturing, and controls. Outside the United States, many comparable foreign regulatory authorities employ similar approval processes.

We have not previously submitted a BLA to the FDA or similar regulatory approval filings to comparable foreign authorities for any product candidate, and we cannot be certain that any of our product candidates will receive regulatory approval. Obtaining approval of a BLA can be a lengthy, expensive, and uncertain process, and as a company we have no experience with the preparation of a BLA submission or any other application for marketing approval. In addition, the FDA has the authority to require a REMS as part of a BLA or after approval, which may impose further requirements or restrictions on the distribution or use of an approved biologic, such as limiting prescribing to certain physicians or medical centers that have undergone specialized training, limiting treatment to patients who meet certain safe-use criteria and requiring treated patients to enroll in a registry. We also would not be permitted to market our product candidates in countries outside of the United States until we receive marketing approval from applicable regulatory authorities in those countries.

Our product candidates could fail to receive regulatory approval for many reasons including but not limited to flaws in trial design, dose selection, patient enrollment criteria and failure to demonstrate an acceptable risk: benefit profile. In addition, data obtained from clinical trials is susceptible to varying interpretations, and regulators may not interpret our data as favorably as we do, which may further delay, limit or prevent marketing approval. The lengthy approval process, as well as the unpredictability of future clinical trial results, may result in our failing to obtain regulatory approval to market any of our product candidates, which would significantly harm our business, results of operations, and prospects. The FDA and other regulatory authorities have substantial discretion in the approval process, and determining when or whether regulatory approval will be obtained for any of our product candidates. As a result, we may be required to conduct additional preclinical studies, alter our proposed clinical trial designs, or conduct additional clinical trials to satisfy the regulatory authorities in each of the jurisdictions in which we hope to conduct clinical trials and develop and market our products, if approved. Further, even if we believe the data collected from clinical trials of our product candidates are promising, such data may not be sufficient to support approval by the FDA or any other regulatory authority.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

If we decide to pursue accelerated approval for any of our product candidates, it may not lead to a faster development or regulatory review or approval process and does not increase the likelihood that it will receive marketing approval. If we are unable to obtain approval under an accelerated pathway, we may be required to conduct additional clinical trials beyond those that we contemplate, which could increase the expense of obtaining, reduce the likelihood of obtaining and/or delay the timing of obtaining, necessary marketing approvals.

In the future, we may decide to pursue accelerated approval for one or more of our product candidates. Under the FDA's accelerated approval program, the FDA may approve a drug or biologic for a serious or life- threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Many cancer therapies rely on accelerated approval, and the treatment landscape can change quickly as the FDA converts accelerated approvals to full approvals on the basis of successful confirmatory trials.

For drugs or biologics granted accelerated approval, post-marketing confirmatory trials are required to describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. These confirmatory trials must be completed with due diligence, and, in some cases, the FDA may require that the trial be designed, initiated and/or fully enrolled prior to approval.

Moreover, the FDA may withdraw approval of any product candidate approved under the accelerated approval pathway if, for example:

- the trial or trials required to verify the predicted clinical benefit of our product candidate fail to verify such benefit or do not demonstrate sufficient clinical benefit to justify the risks associated with such product;
- other evidence demonstrates that our product candidate is not shown to be safe or effective under the conditions of use;
- we fail to conduct any required post-approval trial of our product candidate with due diligence; or
- we disseminate false or misleading promotional materials relating to the relevant product candidate.

In addition, the FDA may terminate the accelerated approval program or change the standards under which accelerated approvals are considered and granted in response to public pressure or other concerns regarding the accelerated approval program. Changes to or termination of the accelerated approval program could prevent or limit our ability to obtain accelerated approval of any of our clinical development programs. Recently, the accelerated approval pathway has come under scrutiny within the FDA and by Congress. The FDA has put increased focus on ensuring that confirmatory studies are conducted with diligence and, ultimately, that such studies confirm the benefit. For example, the FDA has convened its Oncologic Drugs Advisory Committee to review what the FDA has called dangling or delinquent accelerated approvals where confirmatory studies have not been completed or where results did not confirm benefit. In addition, the Oncology Center of Excellence has announced Project Confirm, which is an initiative to promote the transparency of outcomes related to accelerated approvals for oncology indications and provide a framework to foster discussion, research and innovation in approval and post-marketing processes, with the goal to enhance the balance of access and verification of benefit for therapies available to patients with cancer and hematologic malignancies.

The recent enactment of FDORA included provisions related to the accelerated approval pathway. Pursuant to FDORA, the FDA is authorized to require a post-approval study to be underway prior to approval or within a specified time period following approval. FDORA also requires the FDA to specify conditions of any required post-approval study and requires sponsors to submit progress reports for required post-approval studies and any conditions required by the FDA. FDORA enables the FDA to initiate enforcement action for the failure to conduct with due diligence a required post-approval study, including a failure to meet any required conditions specified by the FDA or to submit timely reports.

There is substantial uncertainty regarding the new Administration's initiatives and how these might impact the FDA, its implementation of laws, regulations, policies and guidance and its personnel. Similar initiatives may also be directed toward other government agencies. These initiatives could prevent, limit or delay development and regulatory approval, and/or impact commercialization, of our product candidates, which would impact our business.

FDA-regulated industries, such as ours, face substantial uncertainty regarding the regulatory environment we will face as we proceed with research and development, and possibly in future commercialization, efforts following the inauguration of President Trump in January 2025 (the "Administration"). Some of these efforts have manifested to date in the form of personnel measures that could impact the FDA's ability to hire and retain key personnel, which could result in delays in or limitations on our ability to obtain guidance from the FDA on our product candidates in development and obtain the requisite regulatory approvals in the future. Moreover, the new Administration has proposed action to freeze or reduce the budget of the National Institutes of Health ("NIH") as

related to its funding for medical research, which could decrease the ability of facilities that rely on NIH funding to enroll and conduct clinical trials or increase the costs to us of conducting clinical trials. There remains general uncertainty regarding future activities. The new Administration could issue or promulgate executive orders, regulations, policies or guidance that adversely affect us or create a more challenging or costly environment to pursue the development and sale of new therapeutic products. For example, on January 20, 2025, President Trump announced an executive order establishing the Department of Government Efficiency to maximize government efficiency and productivity. Pressures on and uncertainty surrounding the U.S. federal government's budget and potential changes in budgetary priorities could adversely affect the funding for existing programs and grants and increase the costs to us of conducting clinical trials. Alternatively, state governments may attempt to address or react to changes at the federal level with changes to their own regulatory frameworks in a manner that is adverse to our operations. If we or our collaborators become negatively impacted by future governmental orders, regulations, policies or guidance as a result of the new Administration, there could be a material adverse effect on us and our business.

We will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

If the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, labeling, packaging, distribution, import, export, adverse event reporting, storage, advertising, promotion, and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP and GCP for any clinical trials that we conduct post-approval, all of which may result in significant expense and limit our ability to commercialize such products. In addition, any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any approved marketing application. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production, and quality control.

If there are changes in the application of legislation or regulatory policies, or if problems are discovered with a product or our manufacture of a product, or if we or one of our distributors, licensees or co-marketers fails to comply with regulatory requirements, the regulators could take various actions. These include issuing warning letters or untitled letters, imposing fines on us, imposing restrictions on the product or its manufacture, and requiring us to recall or remove the product from the market. The regulators could also suspend or withdraw our marketing authorizations, requiring us to conduct additional clinical trials, change our product labeling, or submit additional applications for marketing authorization. If any of these events occurs, our ability to sell such product may be impaired, and we may incur substantial additional expense to comply with regulatory requirements, which could materially adversely affect our business, financial condition, and results of operations.

In addition, if we have any product candidate approved, our product labeling, advertising, and promotion will be subject to regulatory requirements and continuing regulatory review. In the United States, the FDA and the Federal Trade Commission ("FTC"), strictly regulate the promotional claims that may be made about pharmaceutical products to ensure that any claims about such products are consistent with regulatory approvals, not misleading or false in any particular way, and adequately substantiated by clinical data. The promotion of a drug product in a manner that is false, misleading, unsubstantiated, or for unapproved (or off-label) uses may

result in enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA or the FTC. In particular, a product may not be promoted for uses that are not consistent with the uses approved by the FDA as reflected in the product's approved labeling. If we receive marketing approval for a product candidate, physicians may nevertheless prescribe it to their patients in a manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become subject to significant liability. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant sanctions and may result in false claims litigation under federal and state statutes, which can lead to consent decrees, civil monetary penalties, restitution, criminal fines and imprisonment, and exclusion from participation in Medicare, Medicaid, and other federal and state healthcare programs. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products, if approved. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

Moreover, the policies of the FDA and of other regulatory authorities may change and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of our product candidates. The standards that the FDA and its foreign counterparts use when regulating us require judgment and can change, which makes it difficult to predict with certainty their application. We may also encounter unexpected delays or increased costs due to new government regulations, for example, from future legislation or administrative action, or from changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. It is impossible to predict whether legislative changes will be enacted, or whether FDA or foreign regulations, guidance or interpretations will be changed, or the impact of such changes, if any. For example, the Oncology Center of Excellence within the FDA has advanced Project Optimus, which is an initiative to reform the dose optimization and dose selection paradigm in oncology drug development to emphasize selection of an optimal dose, which is a dose or doses that maximizes not only the efficacy of a drug but the safety and tolerability as well. This shift from the prior approach, which generally determined the maximum tolerated dose, may require sponsors to spend additional time and resources to further explore a product candidate's dose-response relationship to facilitate optimum dose selection in a target population. Other recent Oncology Center of Excellence initiatives have included Project FrontRunner, a new initiative with a goal of developing a framework for identifying candidate drugs for initial clinical development in the earlier advanced setting rather than for treatment of patients who have received numerous prior lines of therapies or have exhausted available treatment options; Project Confirm, which is an initiative to promote the transparency of outcomes related to accelerated approvals for oncology indications and provide a framework to foster discussion, research and innovation in approval and post-marketing processes, with the goal to enhance the balance of access and verification of benefit for therapies available to patients with cancer and hematologic malignancies; and Project Equity, which is an initiative to ensure that the data submitted to the FDA for approval of oncology medical products adequately reflects the demographic representation of patients for whom the medical products are intended. More recently, as part of FDORA, sponsors will be required to submit Diversity Action Plans ("DAPs") for Phase 3 studies or other pivotal studies of new drugs. DAPs must include the sponsor's goals for enrollment for such studies, disaggregated by age group, sex, and racial and ethnic demographic characteristics of clinically relevant study populations; the sponsor's rationale for such goals; and an explanation of how the sponsor intends to meet such goals. Actions taken in the early days of the new presidential administration

have created significant uncertainty as to whether Project Equity will continue and whether the statutory requirements related to DAPs will be implemented by FDA in the near future. We are considering these and other policy changes as they relate to our programs.

Our employees, independent contractors, principal investigators, consultants, commercial partners, and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee fraud or other misconduct. We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts committed by our employees, agents, contractors, or collaborators that would violate the laws or regulations of the jurisdictions in which we operate, including, without limitation, employment, foreign corrupt practices, trade restrictions and sanctions, environmental, competition, theft of trade secrets as well as patient privacy and other privacy laws and regulations. Misconduct by employees could include failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we may establish, comply with federal and state healthcare fraud and abuse laws and regulations, report financial information or data accurately, or disclose unauthorized activities to us. In particular, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, labeling, Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations.

If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a material and adverse effect on our business, financial condition, results of operations, and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, individual imprisonment, disgorgement of profits, possible exclusion from participation in Medicare, Medicaid, and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of noncompliance with the law, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and pursue our strategy. Further, defending against any such actions can be costly, time-consuming, and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

Our current and future relationships with customers and third-party payors may be subject to applicable anti- kickback, fraud and abuse, transparency, health privacy, and other healthcare laws and regulations, which could expose us to significant penalties, including criminal, civil, and administrative penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, including physicians, and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare providers, third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research, as well as, market, sell and distribute any products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations that may be applicable to our business include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or

in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;

- the federal civil false claims laws, including the False Claims Act, which can be enforced by civil whistleblower or qui tam actions on behalf of the government, and criminal false claims laws and the civil monetary penalties law, prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented false or fraudulent claims for payment by a federal government program, or making a false statement or record material to payment of a false claim or avoiding, decreasing or concealing an obligation to pay money to the federal government;
- HIPAA, as amended by HITECH, and their implementing regulations, impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates and their subcontractors that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security, and transmission of such individually identifiable health information;
- Analogous state laws and regulations such as state anti-kickback and false claims laws and analogous non-U.S. fraud and abuse laws and regulations, may apply to sales or marketing arrangements and including private insurers. Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance regulations promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers, marketing expenditures, or drug pricing, including price increases. State and local laws require the registration of pharmaceutical sales representatives.

Efforts to ensure that our internal business processes and business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional integrity reporting and oversight obligations, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to significant criminal, civil and administrative sanctions, including exclusions from government funded healthcare programs, which could have a material adverse effect on our business, results of operations, financial condition and prospects.

Current and future legislation may increase the difficulty and cost for us and any future collaborators to obtain marketing approval of and commercialize our product candidates and affect the prices we, or they, may obtain.

Existing regulatory policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may not obtain or may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will

be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements. Furthermore, government shutdowns could also impact the ability of regulatory authorities and government agencies to function normally and support our operations. For example, the U.S. federal government has shut down repeatedly since 1980, including for a period of 35 days beginning on December 22, 2018. During a shutdown, certain regulatory authorities and agencies, such as the FDA, have had to furlough key personnel and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

In addition, in the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. The pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. Previously, in March 2010, the ACA was enacted, which was intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Healthcare reform initiatives culminated in the enactment of the IRA in August 2022, which, among other things, allows HHS to directly negotiate the selling price of a statutorily specified number of drugs and biologics each year that CMS reimburses under Medicare Part B and Part D. The negotiated price may not exceed a statutory ceiling price. Only high-expenditure single-source drugs that have been approved for at least 11 years for single-source biologics (7 years for single-source drugs) are eligible to be selected by CMS for negotiation, with the negotiated price taking effect two years after the selection year. For 2026, the first year in which negotiated prices become effective, CMS selected 10 high-cost Medicare Part D products in 2023, negotiations began in 2024, and the negotiated maximum fair price for each product has been announced. These negotiations resulted in significant price reductions for the products from their 2023 list prices, ranging from 38 to 79 percent, with an average price reduction of 59.4 percent. CMS has selected 15 additional Medicare Part D drugs for negotiated maximum fair pricing in 2027. For 2028, an additional 15 drugs, which may be covered under either Medicare Part B or Part D, will be selected, and for 2029 and subsequent years, 20 Part B or Part D drugs will be selected. A drug or biological product that has an orphan drug designation for only one rare disease or condition will be excluded from the IRA's price negotiation requirements, but will lose that exclusion if it receives designations for more than one rare disease or condition, or if is approved for an indication that is not within that single designated rare disease or condition, unless such additional designation or such disqualifying approvals are withdrawn by the time CMS evaluates the drug for selection for negotiation. The negotiated prices have represented, and will continue to represent, a significant discount from average prices to wholesalers and direct purchasers. The law also imposes rebates on Medicare Part D and Part B drugs whose prices have increased at a rate greater than the rate of inflation, and in November 2024, CMS finalized regulations for these inflation rebates. The IRA also extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. The IRA permits the Secretary of HHS to implement many of these provisions through guidance, as opposed to regulation, for the initial years. Manufacturers that fail to comply with the IRA may be subject to various penalties, including civil monetary penalties. These provisions may be subject to legal challenges. For example, the provisions related to the negotiation of selling prices of high- expenditure single-source drugs and biologics have been challenged in multiple lawsuits brought by pharmaceutical manufacturers. Thus, while it is unclear how the IRA will be implemented, it will likely have a significant impact on the pharmaceutical industry.

At the state level in the United States, legislatures are increasingly enacting laws and implementing regulations designed to control pharmaceutical and biologic product pricing, including price constraints, restrictions on certain product access, reporting on price increases and the introduction of high-cost drugs. In some states, laws

have been enacted to encourage importation of lower cost drugs from other countries and bulk purchasing. For example, the FDA released a final rule in September 2020 providing guidance for states to build and submit plans for importing drugs from Canada, and FDA authorized the first such plan in Florida in January 2024, which has been extended until November 2025. It is unclear how this program will be implemented, including which drugs will be chosen, and whether it will be subject to legal challenges in the United States or Canada. Other states have also submitted proposals that are pending review by the FDA. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our drug products that we successfully commercialize or put pressure on our product pricing.

We expect that the ACA, the IRA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates.

Risks Related to Commercialization of Our Product Candidates

We operate in highly competitive and rapidly changing industries, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The biotechnology and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. Our success is highly dependent on our ability to discover, develop, and obtain marketing approval for new and innovative products on a cost-effective basis and to market them successfully. In doing so, we face and will continue to face intense competition from a variety of businesses, including large pharmaceutical and biotechnology companies, academic institutions, government agencies, and other public and private research organizations. These organizations may have significantly greater resources than we do and conduct similar research, seek patent protection, and establish collaborative arrangements for research, development, manufacturing, and marketing of products that compete with our product candidates. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries.

With the proliferation of new oncology drugs and therapies, we expect to face increasingly intense competition as new technologies become available. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. The highly competitive nature of and rapid technological changes in the biotechnology and pharmaceutical industries could render our product candidates or our technology obsolete, less competitive or uneconomical, which could adversely impact our business, financial condition, or results of operations.

Failure to successfully identify, develop, and commercialize additional product candidates could impair our ability to grow.

Although a substantial amount of our efforts will focus on the continued preclinical and clinical testing and potential approval of our product candidates in our current pipeline, we expect to continue to innovate and potentially expand our portfolio. Because we have limited financial and managerial resources, research programs to identify product candidates may require substantial additional technical, financial and human resources, whether or not any new potential product candidates are ultimately identified. Our success may depend in part upon our ability to identify, select, and develop promising product candidates and therapeutics. We may expend

resources and ultimately fail to discover and generate additional product candidates suitable for further development. All product candidates are prone to risks of failure typical of biotechnology product development, including the possibility that a product candidate may not be suitable for clinical development as a result of its harmful side effects, limited efficacy or other characteristics indicating that it is unlikely to receive approval by the FDA, the EMA, and other comparable foreign regulatory authorities and achieve market acceptance. If we do not successfully develop and commercialize new product candidates we have identified and explored, our business, prospects, financial condition, and results of operations could be adversely affected.

Even if approved, our products may not gain market acceptance, in which case we may not be able to generate product revenues, which will materially adversely affect our business, financial condition, and results of operations.

Even if the FDA or any other regulatory authority approves the marketing of any product candidates that we develop on our own or with a collaborator, physicians, healthcare providers, patients, or the medical community may not accept or use them. Additionally, the product candidates that we are developing are based on our internally-developed immunotherapy platform technology, which is a new technology. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenues or any profits from operations. The degree of market acceptance of any of our product candidates will depend on a variety of factors including but not limited to the terms of any approvals and the countries in which approvals are obtained, the number and clinical profile of competing products, and the availability of coverage and adequate reimbursement from insurers for our product candidates. If our product candidates fail to gain market acceptance, our ability to generate revenues to provide a satisfactory, or any, return on our investments may be materially and adversely impacted. Even if some product candidates achieve market acceptance, the market may prove not to be large enough to allow us to generate significant revenues.

We currently have no marketing, sales, or distribution infrastructure and we intend to either establish a sales and marketing infrastructure or outsource this function to a third party. Either of these commercialization strategies carries substantial risks to us.

We currently have no marketing, sales, and distribution capabilities because all of our product candidates are still in clinical or preclinical development. If any of our product candidates are approved, we intend to either establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize our product candidates in a legally compliant manner, or to outsource this function to a third party. There are risks involved if we decide to establish our own sales and marketing capabilities or enter into arrangements with third parties to perform these services. To the extent that we enter into collaboration agreements with respect to marketing, sales or distribution, our product revenue may be lower than if we were to directly market or sell any approved products. Such collaborative arrangements with partners may place the commercialization of our products outside of our control and would make us subject to a number of risks including that we may not be able to control the amount or timing of resources that our collaborative partner devotes to our products or that our collaborator's willingness or ability to complete its obligations, and our obligations under our arrangements may be adversely affected by business combinations or significant changes in our collaborator's business strategy.

If we are unable to enter into these arrangements on acceptable terms or at all, we may not be able to successfully commercialize any approved products. If we are not successful in commercializing any approved products, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses, which would have a material adverse effect on our business, financial condition, and results of operations.

Risks Related to Our Dependence on Third Parties

We rely on third parties to manufacture our product candidates. Any failure by a third-party manufacturer to produce acceptable drug substance for us or to obtain authorization from the FDA or comparable regulatory authorities may delay or impair our ability to initiate or complete our clinical trials, obtain regulatory approvals or commercialize approved products.

We do not currently own or operate any cGMP manufacturing facilities nor do we have any in-house cGMP manufacturing capabilities. We rely on third-party contract manufacturers to produce sufficient quantities of materials required for the manufacture of our product candidates for preclinical testing and clinical trials, in compliance with applicable regulatory and quality standards, and intend to do so for the commercial manufacture of our products, if approved. If we are unable to arrange for such third-party manufacturing sources, or fail to do so on commercially reasonable terms, we may not be able to successfully produce sufficient supply of product candidate or we may be delayed in doing so. Such failure or substantial delay could materially harm our business.

We rely on third parties for biological materials that are used in our discovery and development programs. These materials can be difficult to produce and occasionally have variability from the product specifications. Any disruption in the supply of these biological materials consistent with our product specifications could materially adversely affect our business. Although we have control processes and screening procedures, biological materials are susceptible to damage and contamination and may contain active pathogens. We may also have lower yields in manufacturing batches, which can increase our costs and slow our development timelines. Improper storage of these materials, by us or any third-party suppliers, may require us to destroy some of our biological raw materials or product candidates.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality control and assurance, volume production, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates in accordance with our product specifications), and the possibility of termination or nonrenewal of the agreement by the third party at a time that is costly or damaging to us.

In addition, the FDA and other regulatory authorities require that our product candidates be manufactured according to cGMP and similar foreign standards relating to methods, facilities, and controls used in the manufacturing, processing, and packing of the product, which are intended to ensure that biological products are safe and that they consistently meet applicable requirements and specifications.

If the FDA or a comparable foreign regulatory authority does not approve the manufacture of our product candidates at any of our proposed contract manufacturer’s facilities, or if any contract manufacturer fails to maintain a compliance status acceptable to the FDA or a comparable foreign authority, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for, or market our product candidates, if approved. Any discovery of problems with a product, or a manufacturing facility used by us, may result in restrictions on the product or on the manufacturing facility, including marketed product recall, suspension of manufacturing, product seizure, or a voluntary withdrawal of the drug from the market. We may have little to no control regarding the occurrence of third-party manufacturer incidents.

If we are unable to find an adequate replacement or another acceptable solution in time, our clinical trials could be delayed, or our commercial activities could be harmed. In addition, the fact that we are dependent on our collaborators, our suppliers, and other third parties for the manufacture, filling, storage, and distribution of our product candidates means that we are subject to the risk that the products may have manufacturing defects that we have limited ability to prevent or control. The sale of products containing such defects could adversely affect our business, financial condition, and results of operations. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient

quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates.

Pharmaceutical manufacturers are also subject to extensive post-marketing oversight by the FDA and comparable regulatory authorities in the jurisdictions where the product is marketed, which include periodic unannounced and announced inspections by the FDA to assess compliance with cGMP requirements. If an FDA inspection of a manufacturer's facilities reveals conditions that the FDA determines not to comply with applicable regulatory requirements, the FDA may issue observations through a Notice of Inspectional Observations, commonly referred to as a "Form FDA 483". If observations in the Form FDA 483 are not addressed in a timely manner and to the FDA's satisfaction, the FDA may issue a warning letter or pursue other forms of enforcement action. Any failure by one of our contract manufacturers to comply with cGMP or to provide adequate and timely corrective actions in response to deficiencies identified in a regulatory inspection could result in enforcement action that could lead to a shortage of products and harm our business, including withdrawal of approvals previously granted, seizure, injunction or other civil or criminal penalties. The failure of a manufacturer to address any concerns raised by the FDA or foreign regulators or to maintain a compliance status acceptable to the FDA or foreign regulators could also lead to the delay or withholding of product approval by the FDA or by foreign regulators or could lead to plant shutdown. Certain countries may impose additional requirements on the manufacturing of drug products or drug substances, and on manufacturers, as part of the regulatory approval process for products in such countries. The failure by our third-party manufacturers to satisfy such requirements could impact our ability to obtain or maintain approval of our products in such countries.

Supply sources could be interrupted from time to time and, if interrupted, there is no guarantee that supplies could be resumed within a reasonable time frame and at an acceptable cost or at all.

We rely on our manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidates for our clinical trials. The manufacturing capabilities of our suppliers have been impacted as a result of ongoing supply chain delays, and it may not be possible for us to timely manufacture our product candidates at desired levels. Reduced supply may also lead to increased costs for materials, which can adversely impact our business and results of operations There are a limited number of suppliers for raw materials that we use to manufacture our product candidates, and there may be a need to assess alternate suppliers to prevent a possible disruption of the manufacture of the materials necessary to produce our product candidates for our clinical trials, and if approved, ultimately for commercial sale. Reductions or interruptions in any of our third- party manufacturing processes as a result of supply chain delays caused global conflicts, public health emergencies (including a resurgence of a variant of the COVID-19 pandemic or future pandemic) or other reasons could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We do not have any control over the process or timing of the acquisition of the raw materials we need to produce our product candidates by our manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. We cannot be sure that these suppliers will remain in business, or that they will not be purchased by one of our competitors or another company that is not interested in continuing to produce these materials for our intended purpose. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event a new supplier must be used. The time and effort to qualify a new supplier could result in additional costs, diversion of resources, or reduced manufacturing yields, any of which would negatively impact our operating results. Although we will not begin a clinical trial unless we believe we have a sufficient supply of a product candidate to complete the clinical trial, any significant delay in the supply of a product candidate, or the raw material components thereof, for an ongoing clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our clinical trials, product testing, and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

We currently rely on, and expect to continue to rely on, third parties, including independent clinical investigators, to conduct our preclinical studies and clinical trials. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements, or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We currently rely, and expect to continue to rely on, third parties, including independent clinical investigators, to conduct our preclinical studies and clinical trials and to monitor and manage data for our preclinical and clinical programs. We will rely on these parties for execution of our preclinical studies and clinical trials, and control only certain aspects of their activities. Nevertheless, our reliance on these third parties will not relieve us of our regulatory responsibilities, and we are responsible for ensuring that each of our studies and trials is conducted in accordance with the applicable protocol, legal, regulatory, and scientific standards, including GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our products candidates in clinical development. Regulatory authorities enforce these GCP requirements through periodic inspections of trial sponsors, principal investigators, and trial sites. If we fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with products produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

Further, these investigators are not our employees and we will not be able to control, other than by contract, the amount of resources, including time, which they devote to our product candidates and clinical trials. If independent investigators fail to devote sufficient resources to the development of our product candidates, or if their performance is substandard, it may delay or compromise the prospects for approval and commercialization of any product candidates that we develop. In addition, the use of third-party service providers may require us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated.

There is a limited number of third-party service providers that specialize or have the expertise required to achieve our business objectives. If any of our relationships with these third-party laboratories, or clinical investigators terminate, we may not be able to enter into arrangements with alternative laboratories, or investigators or to do so in a timely manner or on commercially reasonable terms. If laboratories, or clinical investigators do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our preclinical or clinical protocols, regulatory requirements or for other reasons, our preclinical or clinical trials may be extended, delayed, or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed. Switching or adding additional laboratories or investigators involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new laboratory commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines.

In addition, clinical investigators may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the preclinical study or clinical trial, the integrity of the data generated at the applicable preclinical study or clinical trial site may be questioned and the utility of the preclinical study or clinical trial itself may be jeopardized, which could result in the delay or rejection by the FDA. Any such delay or rejection could prevent us from commercializing our clinical-stage product candidate or any future product candidates.

We may not realize the benefits of any existing or future co-development or out-licensing arrangement, and if we fail to enter into new strategic relationships, our business, financial condition, commercialization prospects, and results of operations may be materially adversely affected.

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. Therefore, for some of our product candidates, we may decide to enter into collaborations with pharmaceutical or biopharmaceutical companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Collaborations are complex and time- consuming to negotiate and document. We may not be able to negotiate collaborations on acceptable terms, or at all. If our strategic collaborations do not result in the successful development and commercialization of product candidates, or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. In instances where we do enter into collaborations, we could be subject to a number of risks which may materially harm our business, commercialization prospects, and financial condition. For example, we may not be able to control the amount and timing of resources that is required of us to complete our development obligations or that the collaboration partner devotes to the product development or marketing programs, the collaboration partner may experience financial difficulties, or we may be required to relinquish important rights such as marketing, distribution, and intellectual property rights.

If we license products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the results, revenue, or specific net income that justifies such transaction.

To date, we have relied on one third-party manufacturer for the cGMP production of our drug product candidates. The loss of this third-party manufacturer could negatively impact our ability to develop our product candidates and adversely affect our business.

We do not currently own any facility that may be used as our clinical-scale manufacturing and processing facility and currently rely on a single third-party vendor to manufacture supplies and process our product candidates. We have not yet caused our product candidates to be manufactured or processed on a commercial scale and may not be able to do so for any of our product candidates.

Although in the future we intend to develop our own manufacturing facility, we also intend to use third parties as part of our manufacturing process and may, in any event, never be successful in developing our own manufacturing facility.

Manufacturers of biologic products often encounter difficulties in production, particularly in scaling up or out, validating the production process, and assuring high reliability of the manufacturing process (including the absence of contamination). These problems include logistics and shipping, difficulties with production costs and yields, quality control, including stability of the product, product testing, operator error, availability of qualified personnel, as well as compliance with strictly enforced federal, state, and foreign regulations. Furthermore, if contaminants are discovered in our supply of our product candidates or in the manufacturing facilities, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination.

The lead time needed to establish relationships with new manufacturers can be lengthy, and we may experience delays in meeting demand in the event we must switch to a new manufacturer. The time and effort to qualify a new manufacturer could result in additional costs, diversion of resources, or reduced manufacturing yields, any of which would negatively impact our operating results.

Moreover, to meet anticipated demand, our third-party manufacturer may need to increase manufacturing capacity, which could involve significant challenges. This may require us and our vendor to invest substantial additional funds and hire and retain the technical personnel who have the necessary experience. Neither we nor our third-party manufacturer may successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all.

Risks Related to Intellectual Property

We expect to rely on patents and other intellectual property rights to protect our technology, including product candidates and our immunotherapy platform technology, the prosecution, enforcement, defense, and maintenance of which may be challenging and costly. Failure to protect or enforce these rights adequately could harm our ability to compete and impair our business.

Our commercial success depends in part on obtaining and maintaining patents and other forms of intellectual property rights for technology related to our product candidates, including, but not limited to, our immunotherapy platform technology, product candidates, methods used to manufacture those product candidates, formulations thereof, and the methods for treating patients using those product candidates. Given that the development of our technology and product candidates is at an early stage, our intellectual property portfolio with respect to certain aspects of our technology and product candidates is also at an early stage. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel platform technology and product candidates that are important to our business. The patent prosecution process is expensive and time-consuming, and we may not be able to prepare, file, and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. In addition, during the patent prosecution process, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections.

The issuance, scope, validity, enforceability, and commercial value of our current or future patent rights are highly uncertain. It is possible that we will fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Our pending and future patent applications may not result in the issuance of patents that protect our technology or product candidates, in whole or in part, or that effectively prevent others from commercializing competitive technologies and product candidates. The patent examination process may require us to narrow the scope of the claims of our pending and future patent applications, which may limit the scope of patent protection that may be obtained. Further, even if we obtain patents with sufficient scope to protect our technology or product candidates in their present forms, future technical changes to our technology or product candidates may render the patent coverage inadequate.

We cannot assure you that all of the potentially relevant prior art relating to our patents and patent applications has been found. If such prior art exists, it can invalidate or narrow the scope of a patent or prevent a patent from issuing from a pending patent application. Even if patents do successfully issue and even if such patents cover our product candidates, third parties have initiated or may initiate opposition, interference, re-examination, post-grant review, inter partes review, nullification, or derivation actions in court or before patent offices, or similar proceedings challenging the validity, ownership, enforceability, or scope of such patents, which may result in the patent claims being narrowed, invalidated, or held unenforceable or circumvented. Because patent applications in the United States and other jurisdictions are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to make the inventions claimed in our patents or pending patent applications, or that we were the first to file any patent applications related to such inventions. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent is issued from such applications, and then only to the extent the issued claims cover the technology. Furthermore, even where we have a valid and enforceable patent, we may not be able to exclude others from practicing our invention where the other party can show that it used the invention in commerce before our filing date or that the other party benefits from a compulsory license. Additionally, our competitors or

other third parties may be able to evade our patent rights by developing new biologics, biosimilars, or alternative technologies or products in a non-infringing manner.

In addition, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. Moreover, some of our owned patent applications may in the future be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of our owned patents in order to enforce such patents against third parties, and such cooperation may not be provided to us or our licensors. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other provisions during the patent application process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case. The standards applied by the USPTO, foreign patent offices, and patent courts or other authorities in granting patents and ruling on claim scope and validity are not always applied uniformly or predictably. Patent positions of life sciences companies can be uncertain and involve complex factual, scientific, and legal questions. Changes in either patent laws or their interpretation in any jurisdiction where we seek patent protection may diminish our ability to protect our inventions, maintain and enforce our intellectual property rights, and more generally may affect the value of our intellectual property, including the narrowing of the scope of our patents and any that we may license.

Failure to protect or to obtain, maintain or extend adequate patent and other intellectual property rights could materially adversely affect our ability to develop and market our product candidates.

We may become involved in lawsuits to protect or enforce our issued patents relating to one or more of our product candidates or our internally-developed platform, which could ultimately render our patents invalid or unenforceable and adversely affect our competitive position. Intellectual property litigation or other legal proceedings could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Competitors may infringe our patents or other intellectual property that relate to our immunotherapy platform technology and product candidates, their respective methods of use, manufacture, and formulations thereof. Third parties may in the future claim that our operations infringe their intellectual property rights. To defend against such claims, protect our competitive position and counter infringement or unauthorized use, we may from time to time need to resort to litigation to enforce or defend any patents or other intellectual property rights owned or licensed by us by filing infringement claims. We may be subject to further litigation in the future, involving claims that we have misappropriated or misused other parties' trade secrets or information. To the extent we gain greater market visibility, we face a higher risk of being the subject of intellectual property infringement claims, which is not uncommon with respect to the biopharmaceutical industry.

As enforcement of intellectual property rights is difficult, unpredictable, time-consuming, and expensive, we may fail in enforcing our rights, in which case our competitors may be permitted to use our technology without being required to pay us any license fees. In addition, litigation involving our patents carries the risk that one or more of our patents will be held invalid (in whole, in part, or on a claim-by-claim basis) or held unenforceable. Such an adverse court ruling could allow third parties to commercialize our product candidates or methods, or our immunotherapy platform technology, and then compete directly with us, without payment to us.

Even if resolved in our favor, such litigation and other legal proceedings may cause us to incur significant expenses and would be likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities, and may impact our reputation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Common Stock. Such litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Intellectual property rights of third parties could adversely affect our ability to develop or commercialize our product candidates, such that we could be required to litigate or obtain licenses from third parties in order to develop or market our product candidates.

Our commercial success depends, in part, on our ability to develop, manufacture, market, and sell our product candidates or any products, if approved, without infringing or otherwise violating the intellectual property and other proprietary rights of third parties. Our competitive position may suffer if patents issued to third parties or other third-party intellectual property rights cover our methods or product candidates or elements thereof, our manufacture or uses relevant to our development plans, our product candidates or other attributes of our product candidates, or our immunotherapy platform technology. In such cases, we may not be in a position to develop or commercialize product candidates unless we successfully pursue litigation to nullify or invalidate the third-party intellectual property right concerned, which can be expensive and time-consuming, or have to enter into a license agreement with the intellectual property right holder, if available on commercially reasonable terms at all.

There is a substantial amount of intellectual property litigation in the biotechnology and pharmaceutical industries, and we may become party to, or threatened with, litigation or other adversarial proceedings regarding intellectual property rights with respect to our product candidates. Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. If we are sued for patent infringement, we would need to demonstrate that our product candidates or platform technology either do not infringe the patent claims of a relevant patent or that the patent claims are invalid or unenforceable, and we may not be able to do this. Proving invalidity may be difficult. For example, in the United States, proving invalidity in court requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. We may not have sufficient resources to bring these actions to a successful conclusion. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage or continue costly, unpredictable, and time-consuming litigation and may be prevented from or experience substantial delays in marketing our product candidates.

In addition, indemnity provisions in various agreements and our corporate documents potentially expose us to substantial liability for intellectual property infringement and other claims. In the ordinary course of business, we enter into agreements that may include indemnification provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement or other liabilities relating to or arising from our clinical trials, breach of warranties or other contractual obligations. In some cases, the indemnification will continue after the termination of the applicable agreement. In addition, in accordance with our bylaws and pursuant to indemnification agreements entered into with directors, officers and certain employees, we have indemnification obligations for claims brought against these persons arising out of certain events or occurrences while they are serving at our request in such capacities. For example, our founder and chief executive officer is subject to a claim from a former employer. We agreed to advance certain defense costs and other expenses, subject to an undertaking to repay us such amounts if, and to the extent that, it is ultimately

determined that he is not entitled to indemnification, and his former employer is seeking reimbursement from us for advancements it has made on his behalf. The matter is ongoing. If these matters are resolved in favor of the former employer and if we are required to indemnify our founder and chief executive officer for a loss, we may be required to make an indemnity payment. While we maintain directors' and officers' liability insurance, such insurance may not be applicable, be adequate, or cover all liabilities that we may incur. Large indemnity payments, individually or in the aggregate, could have a material impact on our financial position.

Our involvement in litigation, and in any interferences, post-grant proceedings, opposition proceedings, or other intellectual property proceedings inside and outside of the United States may divert management from focusing on business operations, and even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on our business and operations. In addition, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

We may need to obtain licenses of third-party technology that may not be available to us or are available only on commercially unreasonable terms, and which may cause us to operate our business in a more costly or otherwise adverse manner that was not anticipated.

We own and are pursuing rights to the intellectual property, including patent applications relating to our immunotherapy platform technology and our product candidates. In the future, we may be required to license technologies relating to our therapeutic research programs from additional third parties to further develop or commercialize our platform technology and product candidates. The fusion components of our product candidates may have also been the subject of research by companies that could have filed patent applications on their specific construct and therapeutic methods. There can be no assurance any such patents will not be asserted against us or that we will not need to seek licenses from such third parties. We may not be able to secure such licenses on acceptable terms, if at all, and any such litigation would be costly and time-consuming.

Should we be required to obtain licenses to any third-party technology, including any such patents required to manufacture, use, or sell our product candidates or any products, if approved, the growth of our business will likely depend in part on our ability to acquire, in-license, maintain, or use these proprietary rights. The inability to obtain any third-party license required to develop or commercialize any of our product candidates could cause us to abandon any related efforts, which could seriously harm our business and operations.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. If we are unable to successfully obtain a license to third-party intellectual property rights necessary for the development of a product candidate or program, we may have to abandon development of that product candidate or program and our business and financial condition could suffer.

We are and may become subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We generally enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and contractors. These agreements generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, those agreements may not be honored and may not effectively assign intellectual property rights to us. Moreover, there may be some circumstances, where we are unable to negotiate for such ownership rights. Disputes regarding ownership or inventorship of intellectual property can also arise in other contexts, such as collaborations and sponsored research. Disputes challenging our rights in or to patents or other intellectual property, such as the lawsuit as we faced in our legal

proceedings with Altor/NantCell in 2024, have been and could be expensive and time consuming. If we were unsuccessful, we could lose valuable rights in intellectual property that we regard as our own. In addition, interferences, post-grant proceedings, opposition proceedings, derivation proceedings, or other intellectual property proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications.

The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our product candidates or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship and/or ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

We may rely on trade secret and proprietary know-how, which can be difficult to trace and enforce and, if we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and product candidates, we may rely on trade secrets and/or confidential know-how to protect our technology, especially where patent protection is believed to be of limited value, to maintain our competitive position with respect to our research programs and product candidates. Elements of our product candidates, including processes for their preparation and manufacture, may involve proprietary know-how, information, or technology that is not covered by patents, and thus for these aspects we may consider trade secrets and know-how to be our primary intellectual property. Any disclosure, either intentional or unintentional, by our employees or by other third parties of our trade secrets or proprietary information could enable competitors to duplicate or surpass our technological achievements, thus adversely eroding our competitive position in our market. Further, monitoring unauthorized uses and disclosures is difficult, and we do not know whether the steps we have taken to protect our internally developed technology will be effective. Enforcing a claim that a third party illegally obtained and is using trade secrets and/or confidential know-how is also expensive, time-consuming, and unpredictable.

The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction. The laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. Furthermore, if a competitor lawfully obtained or independently developed any of our trade secrets, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating the trade secret. In addition, some courts inside and outside the United States are less willing or are unwilling to protect trade secrets or other proprietary information.

Trade secrets can over time be disseminated within the biopharmaceutical industry through independent development, the publication of journal articles, and the movement of personnel skilled in the art from company to company or academic to industry scientific positions. Though our agreements with third parties typically restrict the ability of our employees, consultants, contractors, collaborators, advisors, and other third parties to publish data potentially relating to our trade secrets, our agreements may contain certain limited publication rights. Because from time to time we expect to rely on third parties in the development, manufacture, and distribution of our product candidates and provision of our services, we must, at times, share trade secrets with

them. Despite employing the contractual and other security precautions described above, the need to share trade secrets increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be harmed.

In addition, our competitors may independently develop substantially equivalent trade secrets, proprietary information, or know-how and may even apply for patent protection in respect of the same. If successful in obtaining such patent protection, our competitors could limit our use of our trade secrets and/or confidential know-how. Under certain circumstances and to make it more likely that we have freedom to operate, we may also decide to publish some know-how to make it difficult for others to obtain patent rights covering such know-how, at the risk of potentially exposing our trade secrets to our competitors.

We may be in the future subject to third-party claims asserting that our employees, consultants, contractors, collaborators, or advisors have misappropriated or wrongfully used or disseminated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees, including our senior management, were previously employed at universities or at other biopharmaceutical companies, including our competitors or potential competitors. Some of these employees executed proprietary rights, non-disclosure, and non-competition agreements in connection with such previous employment. Similarly, we work with consultants, contractors, collaborators, advisors, or other third parties who have worked with, and do currently work with, other companies, including our competitors or potential competitors, and have executed proprietary rights, non-disclosure, and non-competition agreements in connection with such other companies. Although we try to ensure that our employees, consultants, contractors, collaborators, advisors, or other third parties do not use or disclose the proprietary information or know-how of others in their work for us, we are and may become subject to claims that we or these employees or individuals that we work with have used or disclosed confidential information or intellectual property of others, including trade secrets or other proprietary information, or that we caused an individual to breach the terms of his or her non-competition or non-solicitation agreement with a current or former employer or competitor.

Litigation may be necessary to defend against these claims and, even if we are successful, could result in substantial costs and could be a distraction to management, our employees, and our routine business. If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel or sustain damages. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to develop or commercialize our technology or product candidates. Such a license may not be available on commercially reasonable terms or at all. Moreover, any such litigation or the threat thereof may adversely affect our reputation and our ability to form strategic alliances or sublicense our rights to collaborators, engage with scientific advisors or hire employees or consultants, each of which would have an adverse effect on our business, results of operations, and financial condition.

Risks Related to Data Privacy and Cybersecurity

Our information technology systems, or those used by our third-party contractors or consultants, may fail or suffer security breaches, which could adversely affect our business.

We collect and maintain information in digital form that is necessary to conduct our business, and we are dependent on our information technology systems and those of third parties to operate our business. In the ordinary course of our business, we collect, store, and transmit large amounts of confidential information, including intellectual property, proprietary business information, and personal information, and data to comply

with cGMP, clinical and data integrity requirements. We have established physical, electronic, and organizational measures to safeguard and secure our systems to prevent a data compromise. We have also outsourced elements of our information technology infrastructure, and as a result a number of third-party vendors may or could have access to our confidential information. Despite the implementation of security measures, our information technology systems and data and those of our contractors and consultants are vulnerable to compromise or damage from computer hacking, malicious software, fraudulent activity, employee misconduct, human error, telecommunication and electrical failures, natural disasters, or other cybersecurity attacks or accidents. Future acquisitions could expose us to additional cybersecurity risks and vulnerabilities from any newly acquired information technology infrastructure. While we continue to make investments to improve the protection of data and information technology, there can be no assurance that our efforts will prevent service interruptions or security breaches.

Any cybersecurity incident could adversely affect our business, by leading to, for example, the loss of trade secrets or other intellectual property, demands for ransom or other forms of blackmail, or the unauthorized disclosure of personal or other sensitive information of our employees, clinical trial patients, customers, and others. Although to our knowledge we have not experienced any material cybersecurity incident to date, if such an event were to occur, it could seriously harm our development programs and our business operations. We could be subject to regulatory actions taken by governmental authorities, litigation under laws that protect the privacy of personal information, or other forms of legal proceedings, which could result in significant liabilities or penalties. Further, a cybersecurity incident may disrupt our business or damage our reputation, which could have a material adverse effect on our business, prospects, operating results, share price, stockholder value, and financial condition. We could also incur substantial remediation costs, including the costs of investigating the incident, repairing or replacing damaged systems, restoring normal business operations, implementing increased cybersecurity protections, and paying increased insurance premiums.

We face potential liability related to the privacy of health information we obtain from clinical trials sponsored by us or our collaborators, from research institutions and our collaborators, and directly from individuals.

We and our partners and vendors are subject to various federal, state, and foreign data protection laws and regulations (*i.e.*, laws and regulations that address data privacy and security). If we fail to comply with these laws and regulations, we may be subject to litigation, regulatory investigations, enforcement notices, enforcement actions, fines, and criminal or civil penalties, as well as negative publicity and a potential loss of business.

In the United States, numerous federal and state laws and regulations, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws and regulations that govern the collection, use, disclosure, and protection of health-related and other personal information could apply to our operations or the operations of our partners. For example, most healthcare providers, including research institutions from which we or our collaborators obtain patient health information, are subject to privacy and security regulations promulgated under HIPAA, as amended HITECH. Under HIPAA, we could potentially face substantial criminal or civil penalties if we knowingly receive individually identifiable health information from a HIPAA-covered healthcare provider or research institution that has not satisfied HIPAA's requirements for disclosure of individually identifiable health information or otherwise violate applicable HIPAA requirements related to the protection of such information. Even when HIPAA does not apply, failing to take appropriate steps to keep consumers' personal information secure may constitute a violation of the Federal Trade Commission Act.

In addition, we may maintain sensitive personally identifiable information, including health information, that we receive throughout the clinical trial process, in the course of our research collaborations, and directly from individuals (or their healthcare providers) who enroll in our patient assistance programs. As such, we may be subject to state laws (for example, the CCPA and the California Privacy Rights Act) requiring notification of affected individuals and state regulators in the event of a breach of personal information.

Our clinical trial programs and research collaborations outside the United States may implicate international data protection laws, including in Europe the GDPR. If our privacy or data security measures fail to comply with the

GDPR requirements, we may be subject to litigation, regulatory investigations, enforcement notices, and/or enforcement actions requiring us to change the way we use personal data and/or fines. In addition to statutory enforcement, a personal data breach can lead to negative publicity and a potential loss of business. Further, following the United Kingdom's withdrawal from the E.U. effective as of December 31, 2020, we have to comply with the GDPR and the GDPR as incorporated into United Kingdom national law, which may have differing requirements. If we fail to comply with United Kingdom data protection laws, we may be subject to litigation, regulatory investigations, enforcement notices, and/or enforcement actions, as well as negative publicity and a potential loss of business.

We are also subject to evolving EEA laws on data export, as we may transfer personal data from the EEA to other jurisdictions. Recent legal developments in Europe have created complexity and uncertainty regarding transfers of personal data from the EEA to the United States. For example, on July 16, 2020, the CJEU invalidated the Privacy Shield, under which personal data could be transferred from the EEA to United States entities who had self-certified under the Privacy Shield scheme. Moreover, it is uncertain whether the standard contractual clauses will also be invalidated by the European courts or legislature.

As government authorities issue further guidance on personal data export mechanisms and/or start taking enforcement action, we could suffer additional costs, complaints, and/or regulatory investigations or fines, and/or if we are otherwise unable to transfer personal data between and among countries and regions in which we operate, it could affect the manner in which we provide our services, the geographical location or segregation of our relevant systems and operations, and could adversely affect our financial results. These laws and regulations may apply, not only to us, but also to vendors that store or otherwise process data on our behalf, such as information technology vendors. If such a vendor misuses data we have provided to it, or fails to safeguard such data, we may be subject to litigation, regulatory investigations, enforcement notices, and/or enforcement actions, as well as negative publicity and a potential loss of business.

Other Risks Related to an Investment in our Company

We are an emerging growth company, and the reduced reporting requirements applicable to emerging growth companies may make our Common Stock less attractive to investors.

We are an emerging growth company and are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, but not limited to, only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 reduced disclosure obligations regarding executive compensation in this Prospectus and our periodic reports and proxy statements, exemptions from the requirements of holding non-binding advisory votes on executive compensation and seeking stockholder approval of any golden parachute payments not previously approved and not being required to adopt certain accounting standards until those standards would otherwise apply to private companies. We could be an emerging growth company until the last day of the fiscal year following the fifth anniversary of this offering, although circumstances could cause us to lose that status earlier, including if we become a large accelerated filer (in which case we will cease to be an emerging company as of the date we become a large accelerated filer, which, generally, would occur if, at the end of a fiscal year, among other things, the market value of our Common Stock that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter), if we have total annual gross revenue of $1.235 billion or more during any fiscal year (in which cases we would no longer be an emerging growth company as of March 31 of such fiscal year), or if we issue more than $1.0 billion in non-convertible debt during any three year period before that time (in which case we would cease to be an emerging growth company immediately). Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being

required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this Prospectus and our periodic reports and proxy statements. We cannot predict if investors will find our Common Stock less attractive because we may rely on these exemptions. If some investors find our Common Stock less attractive as a result, there may be a less active trading market for our Common Stock and our stock price may be more volatile.

Our Common Stock price may be volatile and as a result you could lose all or part of your investment.

In addition to volatility associated with equity securities in general, the value of your investment could decline due to the impact of any of the following factors upon the market price of our shares of Common Stock:

- disappointing results from our development efforts;
- decline in demand for our shares of Common Stock;
- downward revisions in securities analysts' estimates or changes in general market conditions;
- technological innovations by competitors or in competing products;
- investor perception of our industry or our prospects; and
- general economic trends.

Stock markets in general have experienced extreme price and volume fluctuations, and the market prices of securities have been highly volatile. These fluctuations are often unrelated to operating performance and may adversely affect the market price of our shares of Common Stock.

Potential future sales pursuant to registration rights granted by the Company and under Rule 144 may depress the market price for our shares of Common Stock.

The Company has granted a number of its stockholders' registration rights with respect to their shares of Common Stock. Such future sales of our shares of Common Stock by our existing stockholders, pursuant to and in accordance with the provisions of any registration statement, may have a depressive effect on the market price of our shares of Common Stock. Further, in general, under Rule 144 under the Securities Act, a person who has satisfied a minimum holding period of between six months and one-year and any other applicable requirements of Rule 144, may thereafter sell such shares publicly. A significant number of our currently issued and outstanding shares of Common Stock held by existing stockholders, including officers and directors and other principal stockholders are currently eligible for resale pursuant to and in accordance with the provisions of Rule 144. The possible future sale of our shares by our existing stockholders, pursuant to and in accordance with the provisions of Rule 144, may have a depressive effect on the price of our Shares of Common Stock in the applicable trading marketplace.

Financial Industry Regulatory Authority, Inc. ("FINRA") has adopted sales practice requirements that may also limit a stockholder's ability to buy and sell our Common Stock.

FINRA has adopted rules that require that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative, low-priced securities will not be suitable for at least some customers. FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our shares of Common Stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares of Common Stock.

We face risks related to compliance with corporate governance laws and financial reporting standards.

The Sarbanes-Oxley Act, as well as related rules and regulations implemented by the SEC and the Public Company Accounting Oversight Board ("PCAOB"), require changes in the corporate governance practices and financial reporting standards for public companies. These laws, rules and regulations, including compliance with Section 404 of the Sarbanes-Oxley Act relating to internal control over financial reporting, referred to as Section 404, materially increased our legal and financial compliance costs and made some activities more time- consuming and more burdensome.

Risks Related to Securities Markets and Investment in Our Stock

Nasdaq may delist our securities from trading on its exchange.

Our Common Stock is listed on Nasdaq. We cannot assure you that our securities will continue to be listed on Nasdaq in the future. The inability to comply with Nasdaq's continued requirements or standards could result in the delisting of our Common Stock, which could have a material adverse effect on our financial condition and could cause the value of the Common Stock to decline.

If our Common Stock were to be delisted from trading on Nasdaq and the trading price of our Common Stock were below $5.00 per share on the date the Common Stock is delisted, trading in our Common Stock would also be subject to the requirements of certain rules promulgated under the Exchange Act. These rules require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a "penny stock" and impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors, generally institutions. These additional requirements may discourage broker-dealers from effecting transactions in securities that are classified as penny stocks, which could severely limit the market price and liquidity of such securities and the ability of purchasers to sell such securities in the secondary market. A penny stock is defined generally as any non-exchange listed equity security that has a market price of less than $5.00 per share, subject to certain exceptions.

Volatility in the Company's share price could subject the Company to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. If the Company faces such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm its business.

A "short squeeze" due to a sudden increase in demand for shares of our Common Stock that largely exceeds supply and/or focused investor trading in anticipation of a potential short squeeze have led to, may be currently leading to, and could again lead to, extreme price volatility in shares of our Common Stock.

Investors may purchase shares of our Common Stock to hedge existing exposure or to speculate on the price of our Common Stock. Speculation on the price of our Common Stock may involve long and short exposures. To the extent aggregate short exposure exceeds the number of shares of our Common Stock available for purchase on the open market, investors with short exposure may have to pay a premium to repurchase shares of our Common Stock for delivery to lenders of our Common Stock. Those repurchases may, in turn, dramatically increase the price of shares of our Common Stock until additional shares of our Common Stock are available for trading or borrowing. This is often referred to as a "short squeeze." With the recent substantial increase in volume of our shares being traded and trading price, the proportion of our Common Stock that may be traded in the future by short sellers may increase the likelihood that our Common Stock will be the target of a short squeeze. A short squeeze and/or focused investor trading in anticipation of a short squeeze have led to, may be currently leading to, and could again lead to volatile price movements in shares of our Common Stock that may be unrelated or disproportionate to our financial performance or prospects and, once investors purchase the shares of our Common Stock necessary to cover their short positions, or if investors no longer believe a short squeeze is viable, the price of our Common Stock may rapidly decline. Investors that purchase shares of our

Common Stock during a short squeeze may lose a significant portion of their investment. Under the circumstances, we caution you against investing in our Common Stock, unless you are prepared to incur the risk of losing all or a substantial portion of your investment.

Increases in market interest rates may cause potential investors to seek higher returns and therefore reduce demand for our Common Stock, which could result in a decline in our stock price.

One of the factors that may influence the price of our Common Stock is the return on our Common Stock (i.e., the amount of distributions as a percentage of the price of our Common Stock) relative to market interest rates. An increase in market interest rates, which are currently at low levels relative to historical rates, may lead prospective purchasers of our Common Stock to expect a return, which we may be unable or choose not to provide as we have never paid a dividend and have no current intention to pay any dividends. Further, higher interest rates would likely increase our borrowing costs and potentially decrease the cash available. Thus, higher market interest rates could cause the market price of our Common Stock to decline.

If securities or industry analysts do not publish research or reports about the Company, or publish negative reports, the Company's share price and trading volume could decline.

The trading market for the Company's shares of Common Stock will depend, in part, on the research and reports that securities or industry analysts publish about the Company. The Company does not have any control over these analysts. If the Company's financial performance fails to meet analyst estimates or one or more of the analysts who cover the Company downgrade its shares of Common Stock or change their opinion, the Company's share price would likely decline. If one or more of these analysts cease coverage of the Company or fail to regularly publish reports on the Company, it could lose visibility in the financial markets, which could cause the Company's share price or trading volume to decline.

Volatility in the price of our Common Stock may subject us to securities litigation.

As discussed above, the market for our Common Stock has been characterized recently by significant price volatility when compared to seasoned issuers, and we expect that our share price will continue to be more volatile than a seasoned issuer for the indefinite future. In the past, plaintiffs have often initiated securities class action litigation against a company following periods of volatility in the market price of its securities. We may in the future be the target of similar litigation. Securities litigation could result in substantial costs and liabilities and could divert management's attention and resources.

Because the Company does not anticipate paying any cash dividends in the foreseeable future, capital appreciation, if any, would be your sole source of gain.

The Company currently anticipates that it will retain future earnings for the development, operation and expansion of its business and does not anticipate declaring or paying any cash dividends for the foreseeable future. As a result, capital appreciation, if any, of the Company's shares of Common Stock would be your sole source of gain on an investment in such shares for the foreseeable future.

The Company's share price has fluctuated historically and may continue to fluctuate.

The Company's share price can be volatile. Among the factors that may affect the volatility of the Company's stock price are the following:

- Speculation in the investment community or the press about, or actual changes in, the Company's competitive position, organizational structure, executive team, operations, financial condition, financial reporting and results, expense discipline, strategic transactions, or progress on achieving expected benefits;

- The announcement of new products, services, acquisitions, or dispositions by the Company or its competitors;
- Increases or decreases in revenue or earnings, changes in earnings estimates by the investment community, and variations between estimated financial results and actual financial results; and
- Sales of a substantial number of shares of the Company's shares of Common Stock by large shareholders.

Future offerings of debt, which would be senior to our Common Stock upon liquidation, and/or preferred equity securities, which may be senior to our Common Stock for purposes of distributions or upon liquidation, could adversely affect the market price of our Common Stock.

In the future, we may attempt to increase our capital resources by making additional offerings of debt or preferred equity securities, including convertible or non-convertible senior or subordinated notes, convertible or non-convertible preferred stock, medium-term notes and trust preferred securities. Upon liquidation, holders of our debt securities and shares of preferred stock and lenders with respect to other borrowings will receive distributions of our available assets prior to the holders of our Common Stock. In addition, any preferred stock we may issue could have a preference on liquidating distributions or a preference on distribution payments that could limit our ability to make a distribution to the holders of our Common Stock. Since our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. Thus, our stockholders bear the risk of our future offerings reducing the market price of our Common Stock.

Anti-takeover provisions contained in our charter and bylaws, as well as provisions of Delaware law, could impair a takeover attempt.

Our charter contains provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. We are also subject to anti-takeover provisions under Delaware law, which could delay or prevent a change of control. Together, these provisions may make more difficult the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities. These provisions will include:

- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the right of our Board to elect a director to fill a vacancy created by the expansion of our Board or the resignation, death, or removal of a director in certain circumstances, which prevents stockholders from being able to fill vacancies on our Board; and
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders.

Our charter provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States of America will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, or employees.

Our charter provides that, subject to limited exceptions, any (i) derivative action or proceeding brought on our behalf of under Delaware law, (ii) any action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer or other employee of HCWB's stockholders, (iii) any action asserting a claim against HCWB or any of its directors, officers or other employees arising pursuant to any provision of the DGCL, the charter or the bylaws of HCWB (in each case, as may be amended from time to time), (iv) any action asserting a claim against HCWB or any of its directors, officers or other employees governed by the internal affairs doctrine

of the State of Delaware or (v) any other action asserting an "internal corporate claim," as defined in Section 115 of the DGCL, in all cases subject to the court's having personal jurisdiction over all indispensable parties named as defendants shall, to the fullest extent permitted by law, be exclusively brought in the Court of Chancery of the State of Delaware or, if such court does not have subject matter jurisdiction thereof, another state or federal court located within the State of Delaware. The charter also provides that unless a majority of the Board of HCWB, acting on behalf of HCWB, consents in writing to the selection of an alternative forum (which consent may be given at any time, including during the pendency of litigation), the federal district courts of the United States of America, to the fullest extent permitted by law, will be the sole and exclusive forum for the resolution of any action asserting a cause of action arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest in shares of HCWB's capital stock shall be deemed to have notice of and to have consented to the provisions of HCWB's certificate of incorporation described above. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Section 22 of the Securities Act creates concurrent jurisdiction for state and federal courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with HCWB or its directors, officers, or other employees, which, along with potential increased costs of litigating the courts provided by the choice of forum provision, may discourage such lawsuits against HCWB and its directors, officers, and employees. Alternatively, if a court were to find these provisions of HCWB's amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, HCWB may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect HCWB's business and financial condition.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $4.2 million (assuming no issuance of Pre-Funded Warrants), after deducting placement agent fees and estimated offering expenses payable by us. However, because this is a reasonable best efforts offering with no minimum number of securities or amount of proceeds as a condition to closing, the actual offering amount, placement agent fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus, and we may not sell all or any of the securities we are offering. As a result, we may receive significantly less in net proceeds. Based on the assumed offering price set forth above, we estimate that our net proceeds from the sale of 75%, 50% or 25% of the shares offered in this offering would be approximately $3.1 million, $1.9 million and $746,000, respectively, after deducting placement agent fees and estimated offering expenses payable by us.

A $0.10 increase (decrease) in the assumed public offering price of $0.6501 per Unit, would increase (decrease) the net proceeds to us from this offering by approximately $715,000, assuming the number of Units offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting placement agent fees.

We currently intend to use the net proceeds of this offering as follows:

- Expenses associated with preclinical and clinical development to prepare for submission of IND applications for molecules created with the TRBC drug discovery and development platform;
- Costs for clinical trials, including clinical trials to evaluate HCW9302 in patients with alopecia areata, and research to identify potential expanded indications;
- Funding for research and development, in particular continued development of TRBC molecules known as second generation T-Cell Engagers and second generation immune checkpoint inhibitors;
- Preparing for business development transactions, including the identification of appropriate compounds for out-licensing, especially the TRBC Class III molecules known as immune cell engagers, such as T-Cell Engagers;
- Expansion of patent portfolio for HCW9302 and other new TRBC-based compounds created with the TRBC drug discovery and development platform, in particular, the second generation T-Cell Engagers and the second generation immune checkpoint inhibitors;
- Costs for studies required for pivotal scientific publications; and
- The remainder for general corporate purposes. General corporate purposes may include, among other things, working capital, capital expenditures and other general corporate purposes.

The actual allocation of proceeds realized from this offering will depend upon our operating expenses, operating revenue, cash position, working capital requirements and other factors. We cannot currently allocate specific percentages of the net proceeds to us from this offering that we may use for the foregoing purposes. Therefore, as of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, we will have discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the proceeds of this offering. Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including deposit accounts, short-term, investment-grade, interest-bearing instruments and U.S. government securities.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2025, on an actual basis, on an as adjusted basis to reflect the inducement transaction to purchase 1,510,205 shares which the Company entered on November 19, 2025, and on an as adjusted basis to reflect the issuance and sale by us of 7,691,124 Units in this offering at the assumed public offering price of $0.6501 per Unit (assuming no issuance of Pre-Funded Warrants), after deducting placement agent fees and estimated offering expenses payable by us and the receipt by us of the proceeds of such sale and assuming no exercise of any outstanding warrants to purchase shares of Common Stock.

The information below is illustrative only. Our capitalization following the closing of this offering will change based on the actual public offering price and other terms of this offering determined at the time of pricing. You should read this table in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes included in our Quarterly Report on Form 10-Q for the period ended September 30, 2025 and subsequent filings pursuant to the Exchange Act.

The following sets forth our cash and capitalization as of September 30, 2025 on:

- an actual basis;
- a pro forma for the effect of the inducement of the exercise of warrants to purchase 1,510,205 shares of Common Stock at $2.66 per share, including 977,000 shares of Common Stock held in abeyance on behalf of Armistice Capital Master Fund Ltd. expected to be issued, after deducting commissions and transaction expenses; and
- a pro forma as adjusted basis, to give post offering effect to the sale of shares of Common Stock in this offering at the assumed public offering price of $0.6501 per share (assuming the sale of the maximum offering amount), and after deducting commissions and estimated offering expenses payable by us.

	At September 30, 2025		
	Actual Basis (unaudited)	Pro Forma (unaudited)	As Adjusted Pro Forma (unaudited)
Cash	$ 1,096,909	$ 4,792,675	$ 9,026,175
Stockholders' (Deficit) Equity			
Shares of Common Stock, $0.0001 par value; 250,000,000 shares authorized and 1,113,532 shares issued at December 31, 2024, 250,000,000 shares authorized and 2,621,607 shares issued at September 30, 2025[1]	262	413	1,182
Additional Paid-in Capital	107,127,619	110,823,234	115,055,965
Accumulated Deficit	(109,235,078)	(109,235,078)	(109,235,078)
Total Stockholders' (Deficit) Equity	(2,107,197)	1,588,623	5,822,069
Total Capitalization	$ (1,010,288)	$ 6,381,245	$ 14,848,244

(1) On April 11, 2025, the Reverse Stock Split was effective. There was no change to authorized shares or par value. Shares outstanding for periods prior to April 11, 2025 are adjusted retrospectively for the Reverse Stock Split of 1-for-40 ratio.

The shares of Common Stock outstanding after pro forma and as adjusted for this offering are based on 2,621,607 shares outstanding as of September 30, 2025. The number excludes the following:

- Up to 7,691,124 Common Stock Warrants each to purchase one share of Common Stock which may be issued in this offering;
- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at $26.00 per share;

- 3,020,410 shares issuable upon the conversion of outstanding warrants, issued on November 19, 2025 in connection with the Inducement Agreement, exercisable at $2.41 per share (which exercise price may be amended to the public offering price per Unit paid in this offering, subject to stockholder approval);
- 42,845 shares issuable upon the exercise stock options of vested employee equity awards under the 2019 Equity Incentive Plan ("2019 Plan") and the 2021 Equity Incentive Plan ("2021 Plan");
- 1,383 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 80,452 shares reserved for issuance under our 2021 Plan; and
- Shares valued up to $17.0 million, which may be issued through draws on our equity line of credit.

DILUTION

If you invest in our Common Stock in this offering, your investment will be immediately and substantially diluted to the extent of the difference between the public offering price per share of our Common Stock and the as adjusted net tangible book value per share of our Common Stock after giving effect to the offering.

Our net tangible book value (deficit) as of September 30, 2025 was ($2.1) million, or approximately ($0.80) per share. Net tangible book value per share represents our total tangible assets less total liabilities, divided by the number of shares of our Common Stock outstanding.

On November 19, 2025, the Company entered into an inducement agreement with Armistice Capital Master Fund Ltd. ("Armistice"), pursuant to which Armistice exercised warrants to purchase 1,510,205 shares of our Common Stock at $2.66 per share, resulting in net proceeds to the Company of approximately $3.7 million, after deducting commission and transaction fees payable by the Company (the "Inducement Transaction" or the "Inducement"). Of those shares of our Common Stock issued in the Inducement Transaction, 977,000 shares were held in abeyance, and 533,205 shares were issued to Armistice. The Company's as-adjusted tangible book value as of September 30, 2025 after giving effect to the Inducement Transaction was approximately $1.6 million, or approximately $0.38 per share of our Common Stock.

The Company's as-adjusted net tangible book value dilution per share of Common Stock (after giving effect to the Inducement Transaction) to new investors represents the difference between the amount per share of our Common Stock paid by investors in the offering and the as-adjusted net tangible book value per share of our Common Stock after giving effect to the Inducement Transaction and completion of this offering. After giving effect to the offering and our sale of the Units in the offering at an assumed public offering price of $0.65 per Unit, and after deduction of placement agent fees from gross proceeds raised in the offering and estimated offering expenses payable by us, our as-adjusted net tangible book value as of September 30, 2025 would have been approximately $5.8 million, or approximately $0.49 per share of our Common Stock. This represents an immediate increase in net tangible book value (after giving effect to the Inducement Transaction) as a result of this offering of $0.11 per share of our Common Stock to existing stockholders and an immediate dilution in net tangible book value of $0.16 per share of our Common Stock to investors in the offering, as illustrated in the following table, based on shares outstanding as of September 30, 2025 as adjusted for shares issued in the Inducement Transaction.

The information below is illustrative only. The dilution caused by this offering will change based on the actual public offering price and other terms of this offering determined at the time of pricing. You should read this table in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes included in our Annual Report on Form 10-K for our fiscal year ended December 31, 2024 and subsequent Exchange Act reports.

Assumed public offering price per share of our Common Stock		$0.65
Net tangible book value (deficit) per share as of September 30, 2025	(0.80)	
As adjusted net tangible book value per share following the Inducement	0.38	
Increase in net tangible book value per share attributable to this offering	0.11	
As adjusted net tangible book value per share as of September 30, 2025, after giving effect to the Inducement and this offering		0.49
Decrease in net tangible book value per share to new investors purchasing shares of our common stock in this offering		$0.16

(1) The above discussion and table are based on 2,621,607 shares of our Common Stock outstanding as of September 30, 2025 and 1,510,205 shares issued in the Inducement Transaction. The number of shares outstanding as of September 30, 2025 and as adjusted for the Inducement Transaction excludes the following:

- Up to 7,691,124 Common Stock Warrants each to purchase one share of Common Stock which may be issued in this offering;
- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at $26.00 per share;
- 3,020,410 shares issuable upon the conversion of outstanding warrants ”), issued on November 19, 2025 in connection with the Inducement Agreement, exercisable at $2.41 per share (which exercise price may be amended to the public offering price per Unit paid in this offering, subject to stockholder approval);
- 42,845 shares issuable upon the exercise stock options of vested employee equity awards under the 2019 Equity Incentive Plan (“2019 Plan”) and the 2021 Equity Incentive Plan (“2021 Plan”);
- 1,383 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 80,452 shares reserved for issuance under our 2021 Plan; and
- Shares valued up to $17.0 million, which may be issued through draws on our equity line of credit.

The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at the time of pricing. The foregoing discussion and table assume no issuance of Pre-Funded Warrants, which if sold, would reduce the number of shares that we are offering on a one-for-one basis. In addition, we may choose to raise additional capital due to market conditions or strategic considerations. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

Market Price of Our Common Stock

Our Common Stock is currently listed on Nasdaq, under the symbol “HCWB”.

On February 13, 2026, the closing sale price of our Common Stock was $0.6501 per share.

As of February 13, 2026, there were approximately 3,300 holders of record of our Common Stock. Such numbers do not include beneficial owners holding our securities through nominee names.

Dividend Policy

HCWB does not anticipate paying any cash dividends in the foreseeable future. If HCWB incurs indebtedness in the future to fund its future growth, its ability to pay dividends may be further restricted by the terms of such indebtedness.

EXECUTIVE COMPENSATION

Executive Officers and Directors

The following table sets forth information regarding our directors and executive officers as of January 30, 2026:

Name	Age	Position
Hing C. Wong, Ph.D.	72	Founder, Chief Executive Officer and Director
Rebecca Byam	70	Chief Financial Officer
Lee Flowers	80	Senior Vice President of Business Development
Peter Rhode, Ph.D.	68	Chief Scientific Officer and Vice President of Clinical Operations
Scott T. Garrett(1)(2)(3)	76	Chairman of the Board, Chairman of the Compensation Committee and Director
Lisa M. Giles(1)(2)(3)	67	Director
Rick S. Greene(1)(2)(3)	60	Chair of Audit Committee and Director

(1) Member of our audit committee
(2) Member of our compensation committee
(3) Independent Director (as defined under Nasdaq Stock Market rules)

Our board of directors chooses our executive officers, who then serve at the discretion of our board of directors.

Hing C. Wong, Ph.D. has served as our Founder and Chief Executive Officer since April 2018. Prior to founding our Company, Dr. Wong founded and served as the Chief Executive Officer of Altor BioScience Corporation, from 2002 to August 2017, when it was acquired by NantCell, Inc. (which subsequently became ImmunityBio, Inc.). After the acquisition of Altor, he served as the Chief Executive Officer of NantCell until March 2018. Prior to that, Dr. Wong founded and served as Chief Executive Officer of Sunol Molecular Corporation from 1996 to 2002; the Director, Biology Skills Center of Baxter Healthcare Inc. from 1992 to 1996; and the Director of Microbial Genetics of Cetus Corporation from 1983 to 1992. Dr. Wong received his Ph.D. degree in Microbiology and Immunology at the University of Massachusetts, Amherst and completed his postdoctoral training at the University of Washington.

Rebecca Byam has served as our Chief Financial Officer since October 2019. Prior to joining our company, Ms. Byam served as a Director of PricewaterhouseCoopers LLP from 2003 to 2019; the Chief Financial Officer of MaMaMedia Inc. from 1998 to 2002; the Chief Financial Officer of Momentum Partners from 1995 to 1998; and as an Investment Professional at Apax Partners LLP, where she specialized in biotechnology investments among other areas with strong intellectual property, from 1985 to 1995. Additionally, Ms. Byam served on the Investment Advisory Council, assisting the development of the Small Business Investment Company program of the U.S. Small Business Administration. Ms. Byam received a B.A. degree in liberal arts from Kenyon College and an M.B.A from the New York University Stern School of Business with a major in finance. She is currently registered as a Certified Public Accountant in the states of Florida and New York.

Lee Flowers has served as our Senior Vice President of Business Development since September 2019. Mr. Flowers is also the Co-Founder of HRS Consulting Inc. Prior to joining our company, in 2009, Mr. Flowers cofounded HRS Consulting, Inc., a Service Disabled Veteran Owned Small Business specializing in management consulting, which acquired the healthcare business of Convergent HRS, LLC and Convergent Knowledge Solutions, LLC, businesses he also cofounded in 2007 and 2003 respectively. He served as the CEO of Sunol Molecular, Inc from 2001 to 2002, CEO of Continuum Electro-optics, Inc from 1997 to 2001; Executive Vice President of Dade International, a spin-off of Baxter International Inc., from 1994 to 1996; the Vice President of Venture Development at Baxter Diagnostics, Baxter International Inc.'s largest subsidiary, from 1993 to 1994; and Division President at Baxter Diagnostics from 1992 to 1993. Upon the merger between American Hospital

Supply Corporation and Baxter International Inc.'s predecessor, Mr. Flowers served as Vice President of Global Marketing for the Dade Division from 1990 to 1991 and Vice President, Sales and Marketing for the Paramax Systems Division from 1986 to1989 at the merged entity. Mr. Flowers received his bachelor's degree in zoology from the University of Kentucky.

Peter Rhode, Ph.D. has served as our Chief Scientific Officer and Vice President of Clinical Operations since May 2019. Prior to joining our company, Dr. Rhode served as the Senior Vice President of Research and Development at Altor BioScience Corporation following its April 2017 acquisition by NantCell, Inc. (which subsequently became ImmunityBio, Inc.) until 2019. Prior to that, Dr. Rhode served as Vice President, Research and Development at Altor BioScience Corporation from its inception in 2002 until its acquisition by NantCell, Inc. Dr. Rhode was among the team of scientists that formed Sunol Molecular Corporation in 1996 and served as Research Director at Sunol Molecular from 1996 to 2002. Dr. Rhode also served as Senior Scientist at Baxter International Inc. from 1991 to 1996. Dr. Rhode received his B.S. degree at the University of California, Davis and his Ph.D. in Biochemistry/Biophysics at the University of Wisconsin, Madison. Additionally, Dr. Rhode was a postdoctoral fellow at the California Institute of Technology.

Scott T. Garrett has served on our board of directors since May 2021 and as Chairman of the board since June 2021. Mr. Garrett is currently a Senior Operating Partner at Water Street Healthcare Partners ("Water Street"). Prior to joining Water Street in 2011, Mr. Garrett served as Chairman, President and Chief Executive Officer of Beckman Coulter, Inc. from 2008 to 2011. Mr. Garrett joined Beckman Coulter, Inc. in 2002 as President, Clinical Diagnostics Division and was promoted to President and Chief Operating Officer in 2003. In January 2005, he became Chief Executive Officer and in 2008, added the position of Chairman. Prior to that, Mr. Garrett served as Vice Chairman and Interim Chief Executive Officer of Kendro Laboratory Products from 1999 to2001; Chairman, President and Chief Executive Officer of Dade Behring, a leading diagnostics company, from 1994 to 1998; and Managing Partner of Garrett Capital Advisors, First Chicago Equity Capital from 1998 to 2002. Mr. Garrett began his career at American Hospital Supply Corporation and continued there after the company was acquired by Baxter International, ultimately serving as Chief Executive of Baxter International's global laboratory business, Baxter Diagnostics from 1992 to 1994. Mr. Garrett also served on the board of Hologic, Inc. from 2013 until March 2025. He currently serves on the board of MeMed Diagnostics; and in his role at Water Street, he chairs the boards of various portfolio companies, including Alcor Scientific, Pathnostics and Avantik. He also serves on the board of the Advanced Medical Technology Association Diagnostics and its Executive Committee. Mr. Garrett received his B.S. degree in mechanical engineering from Valparaiso University and an M.B.A. from the Lake Forest Graduate School of Management. He also completed the Executive Management program at Stanford Graduate School of Business.

Lisa M. Giles has served on our board of directors since October 2021. Ms. Giles founded and has served as the Managing Director and Chief Executive Officer of Giles & Associates Consultancy, Inc. (GAC), a consulting firm in the life sciences industry and academic medical centers, since 2000. In addition to HCW Biologics, Ms. Giles currently serves as a member of the board of directors for Milestone Pharmaceuticals and the Northwestern Memorial Health System Foundation Board. She previously served as a member of the board of directors for GenMark Diagnostics from 2015 to 2021; Durata Therapeutics, Inc. from 2012 to 2014, and Intranasal Therapeutics, Inc. from 2005 to 2006. She also was the Founder and Chief Executive Officer of Optivara, Inc. a sister company to GAC, from 2013 to 2019. Prior to founding GAC, Ms. Giles was the Vice President of strategy development at G.D. Searle Pharmaceutical, a division of Monsanto, and held various leadership roles with Abbott Laboratories. Ms. Giles received her B.S. in economics from Juniata College and completed executive management programs at Stanford University and the University of Chicago.

Rick S. Greene has served on our board of directors since May 2021. Mr. Greene is currently the Chief Financial Officer of Specialized Dental Partners. Prior to joining Specialized Dental Partners in May 2023, Mr. Greene served as the Chief Financial Officer of Epiphany Dermatology from March 2018 to May 2023. Mr. Greene served as the Chief Financial Officer of Altor BioScience Corporation from 2015 to 2018, Vice President and Chief Financial Officer of Cumberland Pharmaceuticals from 2011 to 2015, Executive at Crowe

Horwath LLP from 2007 to 2011, Director at LBMC from 2005 to 2007, Chief Financial Officer at Surgical Alliance Corporation from 2002 to 2005, Senior Manager at Ernst & Young LLP from 1998 to 2002 and 1987 to 1997, and Director Financial Operations at Phycor Inc. from 1997 to 1998. Mr. Greene received his B.S. degree in accounting from Carson-Newman University and is currently registered as a Certified Public Accountant (inactive) in the state of Tennessee.

Family Relationships

There are no family relationships among any members of our executive management and directors.

Arrangements for Election of Directors and Members of Management

There are no arrangements or understandings with major shareholders, customers, suppliers or others pursuant to which any of our executive management or our directors were selected.

Executive Compensation

We became a public company in July 2021, and we are an "emerging growth company" under applicable federal securities laws and therefore permitted to take advantage of certain reduced public company reporting requirements. As an emerging growth company, we provide in this proxy statement the scaled disclosure permitted under the Jumpstart Our Business Startups Act of 2012, including certain executive compensation disclosures required of a "smaller reporting company," as that term is defined in Rule 12b-2 promulgated under the Exchange Act. In addition, as an emerging growth company, we are not required to conduct votes seeking approval, on an advisory basis, of the compensation of our named executive officers or the frequency with which such votes must be conducted. We will remain an emerging growth company until the earliest of (i) the last day of our fiscal year following the fifth anniversary of the completion of our initial public offering, (ii) the last day of the first fiscal year in which our annual gross revenue is $1.235 billion or more, (iii) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities, or (iv) the date on which we are deemed to be a "large accelerated filer" as defined in the Exchange Act.

Named Executive Officers

Our named executive officers for 2025, which consist of our principal executive officer and the next two most highly compensated executive officers, are:

Hing C. Wong, Ph.D., our Founder and Chief Executive Officer;

Rebecca Byam, our Chief Financial Officer; and

Peter Rhode, Ph.D., our Chief Scientific Officer and Vice President of Clinical Operations.

Summary Compensation Table

The following table provides information concerning compensation awarded to, earned by and paid to each of our named executive officers for the years ended December 31, 2025 and 2024:

Name and Principal Position	Fiscal Year	Salary ($)	Bonus ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(3)	All Other Compensation ($)(2)	Total ($)
Hing C. Wong, Ph.D.							
Chief Executive Officer	2025	421,785	—		—	16,871	438,656
	2024	349,219	$5,000		—	13,969	368,188
Rebecca Byam							
Chief Financial Officer	2025	297,412	—		—	11,479	308,891
	2024	143,496	5,000		—	5,740	154,236
Peter Rhode, Ph.D.							
Chief Scientific Officer and Vice President of Clinical Operations	2025	248,745	—			9,949	258,694
	2024	246,795	5,000		—	9,872	261,667

(1) The amounts reported in this column for 2025 represent the aggregate grant date fair value of the stock options granted under our 2019 Equity Incentive Plan ("2019 Plan") to our named executive officers in 2025 as computed in accordance with FASB ASC Topic 718. The assumptions used in calculating the dollar amount recognized for financial statement reporting purposes of the equity awards reported in this column are set forth in Note 10 to our audited financial statements included in this proxy statement. Note that the amounts reported in this column reflect the accounting value for these equity awards and do not correspond to the actual economic value that may be received by our named executive officers from the equity awards.

(2) Represents matching contributions under our 401(k) plan.

(3) Represents performance-based bonuses.

Narrative Disclosure to Summary Compensation Table

Employment Agreement with Dr. Hing Wong

We entered into an employment agreement with Dr. Wong, our Founder and Chief Executive Officer, dated June 18, 2021, which became effective on July 2, 2021. The employment agreement provides the general terms of Dr. Wong's employment, including a $390,000 base salary, an opportunity to earn cash bonus incentives, an additional equity award after our initial public offering, and certain severance rights if he is terminated by us without cause or if he resigns for good reason (as each are defined in the employment agreement). Dr. Wong is employed by us at will.

Cash Bonus Opportunities

In accordance with the employment agreement, Dr. Wong is eligible for a cash bonus each calendar year up to an initial target amount of 60% of his annual base salary based on Dr. Wong's achievement of certain corporate objectives and individual performance goals established by our board of directors or the compensation committee of our board of directors, as disclosed in our Executive Incentive Bonus Plan. See the section entitled "– *Summary Compensation Table*" for Dr. Wong's bonus payment in 2024.

Equity Incentive Grant

Per Dr. Wong's employment agreement, during the 60-day period after our initial public offering, we promised to negotiate in good faith with him regarding the terms of a grant of a stock option, restricted stock

units and/or other equity incentives in accordance with the terms of our 2021 Plan. Per his employment agreement, on September 8, 2021, we granted Dr. Wong a stock option to purchase 800,000 shares of our common stock (pre-reverse stock split), which will vest over a four-year period. See the section entitled "*Outstanding Equity Awards at Fiscal Year-End Table*" for additional details about the stock option grant. The equity award also provides that if, in connection with a change of control of the Company (as defined in the 2021 Plan), the acquiror does not assume or substitute for the equity award, then it will vest in full effective as of immediately prior to the closing of such transaction.

Severance Benefits

If we terminate Dr. Wong's employment without cause or if he resigns from employment for good reason (as each are defined in his employment agreement), subject to his execution of a release of claims in favor of the Company, Dr. Wong is entitled to receive certain severance benefits, as described below.

Employment Agreement with Ms. Rebecca Byam

We entered into an employment agreement with Ms. Byam, the Company's Chief Financial Officer, dated October 9, 2019. The employment agreement provides the general terms of Ms. Byam's employment, including her initial base salary, the opportunity to earn cash bonus incentives, an initial stock option award under our 2019 Plan and the opportunity to receive additional stock option grants upon the achievement of certain events. The employment agreement provides for an initial four-year term of employment, which automatically renews for additional twelve-month terms unless earlier terminated in accordance with the terms of the employment agreement. Ms. Byam's employment is terminatable by us at any time, with or without cause, and upon 30 days or more advance written notice to her if for reasons other than for cause. Ms. Byam may terminate her employment at any time, with or without cause, and without advance written notice.

Cash Bonus Opportunities

In accordance with the employment agreement, Ms. Byam is eligible for a cash bonus each calendar year up to an initial target amount of 50% of Ms. Byam's annual base salary based on Ms. Byam's achievement of certain corporate objectives and individual performance goals established by our board of directors or the compensation committee of our board of directors, as disclosed in our Executive Incentive Bonus Plan. See the section entitled "*Summary Compensation Table*" for Ms. Byam's bonus payment in 2025.

Stock Option Grants

Per her employment agreement, on October 11, 2019, we granted Ms. Byam the initial stock option to purchase 135,000 shares of our common stock (all shares disclosed herein are pre-reverse stock split), which vests over a four-year period. Additionally, Ms. Byam is eligible to be granted the following stock option awards under the terms of her employment agreement: (i) a stock option to purchase 135,000 shares of our common stock, to be granted to Ms. Byam upon our closing of a private placement equity financing of at least $20 million; and (ii) a stock option to purchase 135,000 shares of our common stock, to be granted to Ms. Byam upon our initial public offering having a pre-money valuation of at least $200 million (collectively, the "Performance Options"). Per her employment agreement, on August 29, 2021 and September 8, 2021, the Company granted Ms. Byam stock options to purchase 135,000 and 80,000 shares of our common stock, respectively. See the section entitled "*Outstanding Equity Awards at Fiscal Year-End Table*" for additional details about the stock option grants.

Severance Benefits

If we terminate Ms. Byam's employment without cause (as defined in her employment agreement), subject to her execution of a release of claims in favor of the Company, Ms. Byam will be entitled to receive certain severance benefits, as described below.

Potential Payments Upon Termination or Change in Control

Dr. Wong

If we terminate Dr. Wong's employment without cause or if he resigns for good reason (as each are defined in his employment agreement), subject to his execution of a release of claims in our favor, Dr. Wong is entitled to receive (i) a lump sum cash severance payment equal to 2 times his then-current annual base salary, and (ii) the vesting of all of his then unvested and outstanding equity awards that would have become vested had he remained in the employ of the Company for the 24 month period following his termination of employment; provided, however that if Dr. Wong's termination occurs in connection with or within the 12 months following a change in control of the Company (as defined in the 2021 Plan), the equity awards will vest in full as of the date of his termination.

Ms. Byam

If we terminate Ms. Byam's employment without cause (as defined in her employment agreement), subject to her execution of a release of claims in our favor, Ms. Byam is entitled to receive (i) cash severance equal to nine months of her then-current base salary, provided that this amount will be increased to 12 months if the termination occurs within one year following the consummation of a change of control (as defined in her employment agreement) of the Company, and (ii) immediate vesting of each of her then-outstanding stock option awards which are described above.

In addition, if we decline to extend the term of Ms. Byam's employment under the employment agreement past the initial four-year term or past any subsequent 12-month term, subject to her execution of a release of claims in favor of the Company, Ms. Byam will be also entitled to the immediate vesting of each of her then-outstanding stock option awards which are described above. If Ms. Byam's employment is terminated due to disability (as defined in her employment agreement), she will receive the cash severance described above, and in the event of her death, the Performance Options, to the extent granted, will immediately vest in full.

Executive Incentive Bonus Plan

Our board of directors approved our Executive Incentive Bonus Plan, or the Bonus Plan, in June 2021.

General

The purpose of the Bonus Plan is to motivate and reward our eligible officers and employees, including our named executive officers, for their contributions toward the achievement of certain performance goals. The Bonus Plan is administered by the compensation committee of our board of directors, which shall have the discretionary authority to interpret the provisions of the Bonus Plan, including all decisions on eligibility to participate, the establishment of performance goals, the number of awards payable under the plan, and the payment of awards. The compensation committee, in its sole discretion and on such terms and conditions as it may provide, may delegate all or part of its authority and powers under the Bonus Plan to one or more of our directors and officers. The compensation committee may terminate the Bonus Plan at any time, provided such termination shall not affect the payment of any awards accrued under the Bonus Plan prior to the date of the termination. The compensation committee may, at any time, or from time to time, amend or suspend and, if suspended, reinstate, the Bonus Plan in whole or in part.

Targets and Performance Criteria

The compensation committee may establish cash bonus targets and corporate performance goals for a specific performance period or fiscal year pursuant to the Bonus Plan. Corporate performance goals may be based on wide-ranging criteria and metrics described in the Bonus Plan, which mirror those in our 2021 Plan. Awards issued to participants, however, may also take into account other factors, including subjective factors. Performance goals may differ from participant to participant, performance period to performance period, and from award to award.

Eligibility and Clawback

Unless otherwise determined by the compensation committee, a participant must be actively employed and in good standing with us on the date the award is paid. The compensation committee may make exceptions to this requirement in the case of retirement, death or disability, an unqualified leave of absence or under other circumstances, as determined by the compensation committee in its sole discretion.

Awards granted under the Bonus Plan are subject to any clawback policy as may be established and/or amended from time to time by us. The compensation committee may require a participant to forfeit or return to and/or reimburse us for any amounts paid with respect to an award, pursuant to the terms of such company policy or as necessary or appropriate to comply with applicable laws.

Hedging and Pledging Policy

Under the terms of our insider trading policy, no employees, contractors, consultants and members of our board of directors (and their respective family members and any affiliated entities, such as venture capital funds) may engage in hedging or monetization transactions involving our securities, such as prepaid variable forward contracts, equity swaps, collars or exchange funds. In addition, such persons may not hold our securities in a margin account or pledge our securities as collateral for a loan unless the pledge has been approved by our Compliance Officer.

Outstanding Equity Awards at Fiscal Year-End Table

The following table provides information regarding the outstanding stock option awards held by our named executive officers on December 31, 2025.

	Option Awards[1] Number of Securities Underlying Unexercised Options				
Name	Grant Date	(#) Exercisable	(#) Unexercisable	(#) Option Exercise Price ($)[2]	Option Expiration Date
Hing C. Wong, Ph.D.	9/8/2021	20,000	— [3]	172.40	9/8/2031
Rebecca Byam	8/29/2021	3,375	— [4]	160.00	8/29/2031
	9/8/2021	2,000	— [5]	172.40	9/8/2031
Peter Rhode, Ph.D	12/19/2019	561	— [6]	5.59	12/19/2029
	12/22/2020	172	— [7]	8.37	12/22/2030
	9/8/2021	500	— [8]	172.40	9/8/2031

(1) All of the outstanding equity awards were granted under our 2021 Plan and are subject to acceleration of vesting as described in above.
(2) This column represents the fair market value of a share of our common stock on the date of grant.
(3) These option shares were part of a stock option grant covering 20,000 shares of our common stock. All of the shares subject to the stock option grant have vested.
(4) These option shares were part of a stock option grant covering 3,375 shares of our common stock. All of the shares subject to the stock option grant have vested.
(5) These option shares were part of a stock option grant covering 2,000 shares of our common stock. All of the shares subject to the stock option grant have vested.
(6) These option shares were part of a stock option grant covering 2,143 shares of our common stock. All of the shares subject to the stock option grant have vested.
(7) These option shares were part of a stock option grant covering 215 shares of our common stock. All of the shares subject to the stock option grant have vested.
(8) These option shares were part of a stock option grant covering 500 shares of our common stock. All of the shares subject to the stock option grant have vested.

Note: Our named executive officers held the provided number of shares subject to outstanding stock options as of December 31, 2025 (pre-reverse stock split). On April 11, 2025, the Company effected a one-for-forty reverse stock split of its common stock. Our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024 that are incorporated by reference into this proxy are presented without giving effect to the reverse stock split.

Director Compensation

Director Compensation Table

The following table provides information concerning compensation awarded to, earned by or paid to each person who served as a non-employee member of our board of directors during the fiscal year ended December 31, 2025. Dr. Wong is not included in the table below, as he is employed as our Chief Executive Officer, and receives no compensation for his service as a director. The compensation received by Dr. Wong as an employee is shown in "Executive Compensation-Summary Compensation Table" below.

Name	Fees Earned or Paid in Cash ($)	Awards ($)(1)(2)	Total ($)
Scott T. Garrett	60,000	—	60,000
Lisa M. Giles	40,000	—	40,000
Rick S. Greene	50,000	—	50,000
Gary M. Winer	40,000	—	40,000

(1) The amounts reported in this column represent the aggregate grant date fair value for financial statement reporting purposes of stock options granted 2025 as determined in accordance with FASB ASC Topic 718. These amounts reflect our accounting expense for these stock options and do not represent the actual economic value that may be realized by each non-employee director. There can be no assurance that these amounts will ever be realized. For information on the assumptions used in valuing these awards, refer to Note 10 to the historical financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2024. As required by SEC rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions.

(2) Our non-employee directors that served during year 2025 held the following number of stock options as of December 31, 2025:

Name	Shares Subject to Outstanding Stock Options(1)
Scott T. Garrett	2,198
Lisa M. Giles	2,599
Rick S. Greene	2,198
Gary M. Winer	2,599

(1) Our non-employee directors that served during the year 2025 held the provided number of shares subject to outstanding stock options as of December 31, 2025 (pre-reverse stock split). On April 11, 2025, the Company effected a one-for-forty reverse stock split of its common stock. Our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024 that are incorporated by reference into this proxy are presented without giving effect to the reverse stock split.

Non-Employee Director Compensation Arrangements

Our non-employee director compensation policy is designed to obtain and retain the services of qualified persons to serve as members of our board of directors.

The policy provides for the following annual cash retainers, which are payable quarterly in arrears and pro-rated for partial quarters of service:

Annual Cash Retainer

All other non-employee directors: $40,000;

Non-employee chairperson of the audit committee: $50,000 (in lieu of the above); and

Non-employee chairperson of the board of directors: $60,000 (in lieu of the above).

Equity Grants

The policy also provides for grants of nonstatutory stock options to purchase shares of our common stock under the HCW Biologics Inc. 2021 Equity Incentive Plan (the "2021 Plan") to the non-employee directors upon their initial election or appointment to our board of directors and annually during their continued service thereafter. Any stock options granted will have an exercise price equal to 100% of the fair market value of our common stock on the date of grant.

Each non-employee director who is elected or appointed for the first time to our board of directors is granted an equity award with a grant date value of $100,000. The initial grant fully vests on the one-year anniversary of the date of appointment to our board of directors.

At our 2025 annual meeting, we deferred the grant of stock options to purchase shares of our common stock with a grant date fair value (disregarding estimated forfeitures related to service-based vesting) to continuing non-employee directors who had served on our board of directors for at least 6 months prior to such annual meeting. The Board and management are reviewing the equity plan and future grants.

Our board of directors also has the discretion to continue the vesting of any non-employee director option beyond the date of the director's termination of service, if warranted by the circumstances, and to make discretionary stock award grants to our non-employee directors.

All stock options granted to non-employee directors will be made pursuant to our 2021 Equity Incentive Plan and will vest in full immediately prior to, and contingent upon, the consummation of a change in control of our company, subject to the director's continued service as a member of our board of directors through the change in control.

Expense Reimbursement

We also reimburse our directors for their reasonable out-of-pocket expenses in connection with attending meetings of our board of directors and committees.

The non-employee director compensation program is intended to provide a total compensation package that enables us to attract and retain qualified and experienced individuals to serve as directors and to align our directors' interests with those of our stockholders.

BENEFICIAL OWNERSHIP OF SECURITIES

The following table sets forth certain information with respect to the beneficial ownership of our Common Stock as of January 31, 2026, by:

- each stockholder, or group of affiliated persons, known by us to be the beneficial owner of more than 5% of our Common Stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned by them, subject to community property laws where applicable. Shares of our Common Stock subject to stock options that are currently exercisable or exercisable within 60 days of January 31, 2026 are deemed to be outstanding and to be beneficially owned by the person holding the stock options for the purpose of computing the percentage ownership of that person, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Percentage ownership of our Common Stock is based on 3,279,812 shares of our Common Stock outstanding on February 13, 2026 (after adjustment for the Reverse Stock Split). Unless otherwise indicated, the address of each of the individuals and entities named below is c/o HCW Biologics Inc., 2929 N. Commerce Parkway, Miramar, Florida 33025.

Name of Beneficial Owner	Common Stock	Options Exercisable within 60 days	Aggregate Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors and Executive Officers				
Hing C. Wong, Ph.D.(1)	501,911	20,000	521,911	15.9%
Peter Rhode, Ph.D.(2)	1,939	1,233	3,172	*
Rebecca Byam(3)	43,010	5,375	48,385	1.5%
Scott T. Garrett(4)	25,505	2,198	27,703	*
Rick S. Greene(5)	2,006	2,198	4,264	*
Lisa M. Giles(6)	896	2,599	3,495	*
All executive officers and directors as a group (6 persons)	581,047	34,853	615,900	18.8%

* Represents beneficial ownership of less than one percent of the outstanding shares of our Common Stock.

(1) Consists of (a) 398,719 shares held directly by Dr. Hing C. Wong and (b) 103,192 shares held by Dr. Hing C. Wong and Ms. Bee Yau Huang.

(2) Consists of 1,939 shares held directly by Peter Rhode.

(3) Consists of 43,010 shares held directly by Rebecca Byam.

(4) Consists of (a) 6,697 shares held by Garrett Capital Partners, LLC. Mr. Garrett is deemed to beneficially own the shares held by Garrett Capital Partners, LLC and (b) 18,808 shares held directly by Mr. Garrett.

(5) Consists of 2,066 shares held directly by Rick S. Greene.

(6) Consists of 896 shares held by Lisa M. Giles Living Trust.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the executive officer and director compensation arrangements discussed under "Executive Compensation" and "Director Compensation," respectively, since January 1, 2022, the following are the only transactions or series of similar transactions to which we were or will be a party in which the amount involved exceeds the lesser of (i) $120,000 or (ii) 1% of the Company's average total assets at year-end for the last two completed fiscal years and in which any director, nominee for director, executive officer, beneficial holder of more than 5% of our capital stock or any member of their immediate family or any entity affiliated with any of the foregoing persons had or will have a direct or indirect material interest.

Private Placement

On February 20, 2024, we entered into subscription agreements with certain of our officers and directors, pursuant to which we sold an aggregate of 44,643 shares of our Common Stock, $0.0001 par value per share, at a purchase price of $56.00 per share for an aggregate purchase price of $2.5 million. (The foregoing number of shares sold and purchase price are as adjusted for the Reverse Stock Split.)

The following table summarizes the Common Stock purchased by our directors, executive officers, and beneficial owners of more than 5% of Common Stock (after adjustment for the Reverse Stock Split).

Name and Title	Shares of Common Stock	Total Purchase Price
Rebecca Byam, Chief Financial Officer	19,018	$1,064,999.60
Dr. Hing C. Wong, Chief Executive Officer*	18,483	$1,035,003.20
Scott Garrett, Chairman of the Board	3,572	$ 200,001.20

* Beneficial owner of more than 5% of the Common Stock

The shares have not been registered and will not be sold or transferred except as permitted under law and pursuant to registration or exemption therefrom. The Board of Directors and Audit Committee of the Board of Directors reviewed the transaction under the policy for Related Party Transactions and determined that the transaction was in compliance with such policy.

Secured Note Financing

As of October 31, 2024, we received approximately $6.9 million from the issuance of senior secured notes to certain accredited investors (the "Secured Notes"). Of the total issuance of Secured Notes, the Company issued $2.9 million to members of the Company's board of directors and officers, including $2.4 million purchased by Dr. Hing C. Wong, Founder and CEO, $220,000 purchased by Rebecca Byam, Chief Financial Officer, $140,000 purchased by Scott T. Garrett, Chairman of the board of directors, $60,000 purchased by Gary M. Winer, a former member of the board of directors, $25,000 purchased by Lee Flowers, Senior Vice President for Business Development, and $25,000 purchased by Rick S. Greene, member of the board of directors.

The following table summarizes the aggregate principal amounts of Secured Notes purchased by our directors, executive officers, and beneficial owners of more than 5% of Common Stock at par.

Name and Title	Aggregate Principal Amount of Secured Notes
Dr. Hing C. Wong, Chief Executive Officer*	$ 2,405,000
Rebecca Byam, Chief Financial Officer	$ 220,000
Scott T. Garrett, Chairman of the board of directors	$ 140,000
Gary M. Winer, Former Director	$ 60,000
Lee Flowers, Senior Vice President for Business Development	$ 25,000
Rick S. Greene, Director	$ 25,000

* Beneficial owner of more than 5% of our Common Stock

The Senior Notes bear interest at a rate of 9% per annum, payable quarterly in arrears, and mature on March 27, 2026 (the "Maturity Date"), on which date the principal balance and accrued but unpaid interest under the Secured Notes shall be due and payable. The Secured Notes may be prepaid in whole or in part at any time prior to the Maturity Date and are subject to a 5% prepayment penalty ("Premium Amount"). The Secured Notes are secured by the pledge of our equity ownership interest in Wugen, (the "Pledged Collateral"). Upon a qualifying event involving a transaction such as an acquisition, merger or initial public offering in which the Pledged Collateral can be sold or liquidated prior to the Maturity Date, subject to certain limitations (such as a threshold price per share in the case of an initial public offering), we have agreed to repay all indebtedness (including accrued interest) related to the Secured Notes plus a Premium Amount. Upon an Event of Default (as defined in the Note Purchase Agreement), we will have a thirty (30) day cure period (the "Cure Period"), and if the Event of Default is not so cured at the end of the Cure Period, we are required to distribute the Pledged Collateral to the Purchasers on a pro rata basis, in full satisfaction of the indebtedness evidenced by the Secured Notes.

The Pledged Collateral has not been registered and will not be sold or transferred except as permitted under law and pursuant to registration or exemption therefrom. The Board of Directors and Audit Committee of the Board of Directors reviewed the transaction under the policy for Related Party Transactions and determined that the transaction was in compliance with such policy.

The holders of $6.6 million of the outstanding principal of the Secured Notes have agreed to and effected the conversion of the Secured Notes held by them into shares of the Company's Common Stock at a conversion price of $26.00 per share (adjusted for the Reverse Stock Split), warrants to purchase approximately $3.3 million of the Company's Common Stock at an exercise price of $26.00 per share, and the right to their pro rata share of 49.11% of the proceeds of the Company's shares of Wugen common stock ("Wugen Shares"), if and when such shares are ever sold (the "Wugen Proceeds"). The conversion was approved at a Special Meeting of Stockholders held on March 31, 2025 and was effected pursuant to the terms of that certain Second Amendment to Amended and Restated Senior Secured Note Purchase Agreement and Related Agreements dated as of May 1, 2025 (the "Conversion Amendment"). On May 7, 2025, pursuant to the Conversion Amendment, the Secured Notes held by the participating noteholders were cancelled, and the Company issued a total of 253,083 unregistered shares of Common Stock (which are subject to a 180-day lock-up) and warrants to purchase an additional 126,542 shares of Common Stock at an exercise price of $26.00 per share. On January 29, 2026, the SEC declared effective a resale registration statement on Form S-1 (File Number 333-292652) covering the resale of shares of Common Stock and warrants issued to such note holders.

Convertible Bridge Notes

As of May 7, 2025, we issued a total of $270,000 principal amount of unsecured convertible promissory notes that mature on May 5, 2026 with paid in kind interest accruing thereon, payable quarterly in arrears at 10% per annum (the "Convertible Bridge Notes"). In accordance with their terms, following the completion of this offering the Convertible Bridge Notes will be converted into shares of our Common Stock at the final offering price in this offering. In addition, holders of the Convertible Bridge Notes have the right to receive a portion of Wugen Proceeds with respect to a number of the Wugen Shares equal to 0.25 multiplied by the original principal amount, in dollars, of the Convertible Bridge Notes. Investors included: $60,000 invested by Hing C. Wong, the Company's Founder and CEO; $100,000 invested by Scott T. Garrett, the Chairman of the Company's Board of Directors; and $10,000 invested by Gary M. Winer, a former member of the Company's Board of Directors.

Stock Option Grants to Executive Officers

We have granted stock options to our named executive officers as more fully described in the section entitled "Executive Compensation."

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and officers. The indemnification agreements and our amended and restated certificate of incorporation and amended and restated bylaws require us to indemnify our directors and officers to the fullest extent permitted by Delaware law.

Review, Approval or Ratification of Transactions with Related Parties

Our written related party transactions policy states that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of our Common Stock and any members of the immediate family of and any entity affiliated with any of the foregoing persons are not permitted to enter into a material related party transaction with us without the review and approval of our audit committee. The policy provides that any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of our Common Stock or with any of their immediate family members or affiliates in which the amount involved exceeds $120,000 must be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee considers the relevant facts and circumstances available and deemed relevant to the committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party's interest in the transaction.

DESCRIPTION OF OUR SECURITIES

The following is a description of our securities of as set forth in certain provisions of our Second Amended and Restated Certificate of Incorporation (the "Charter") and our Amended and Restated Bylaws (the "Bylaws"), and applicable forms of warrant, each previously filed with the SEC and incorporated by reference as an exhibit to this registration statement of which this prospectus forms a part. This summary does not purport to be complete and is qualified in its entirety by the full text of the Charter, Bylaws, applicable forms of warrant, and the applicable provisions of the Delaware General Corporation Law (the "DGCL"). We encourage you to read our Charter, Bylaws, applicable forms of warrant, and the applicable portions of the DGCL carefully.

Authorized and Outstanding Stock

The Charter authorizes the issuance of an aggregate of 250 million shares of Common Stock, $0.0001 par value per share and 10 million shares of preferred stock, $0.0001 par value per share. Our purpose is to engage in any lawful act or activity for which corporations may be organized under the DGCL. Unless our board of directors determines otherwise, we will issue all shares of our capital stock in uncertificated form.

As of February 13, 2026, HCWB had 3,279,812 shares of its Common Stock issued and outstanding and 0 shares of preferred stock issued and outstanding.

Common Stock

Voting Rights

Each holder of Common Stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our certificate of incorporation and bylaws do not provide for cumulative voting rights. Because of this, the holders of a plurality of the shares of Common Stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose. With respect to matters other than the election of directors, at any meeting of the stockholders at which a quorum is present or represented, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at such meeting and entitled to vote on the subject matter shall be the act of the stockholders, except as otherwise required by law. The holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders.

Dividend Right

Subject to preferences that may be applicable to any then outstanding redeemable preferred stock, holders of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

We have never declared or paid any cash dividends on our Common Stock or any other securities. We anticipate that we will retain all available funds and any future earnings, if any, for use in the operation of our business and do not anticipate paying cash dividends in the foreseeable future. In addition, future debt instruments may materially restrict our ability to pay dividends on our Common Stock. Payment of future cash dividends, if any, will be at the discretion of the Board after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs, the requirements of current or then- existing debt instruments and other factors the Board deems relevant.

Rights upon Liquidation, Dissolution and Winding-Up

In the event of our liquidation, dissolution or winding up, holders of Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of redeemable preferred stock.

Preemptive or Other Rights

Holders of Common Stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to the Common Stock. The rights, preferences and privileges of the holders of Common Stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of redeemable preferred stock that we may designate in the future.

Reverse Stock Split

As reported on the Form 8-K we filed with the SEC on April 1, 2025, as approved by our stockholders and board of directors on that date as part of our plan to regain compliance with applicable continued listing rules of The Nasdaq Stock Market, we filed a Certificate of Amendment to our Certificate of Incorporation, as corrected, to effect a reverse stock split at a ratio of 40-to-1 with respect to shares of our Common Stock, which amendment became effective as of 12:01 a.m. Eastern time on April 11, 2025.

Our Transfer Agent

The transfer agent will continue to be Equiniti Trust Company, LLC.

Warrants

Common Stock Warrants

Overview. The following summary of certain terms and provisions of the Common Stock Warrants offered hereby is not complete and is subject to, and qualified in its entirety by the form of Common Stock Warrant, which is filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of Common Stock Warrant. Each warrant issued in this offering entitles the registered holder to purchase one share of our Common Stock at a price equal to $[●] per share, subject to adjustment as discussed below, immediately following the issuance of such warrant and terminating at 5:00 p.m., New York City time, on the fifth anniversary of the original issuance date. The Common Stock Warrants will be issued in certificated form.

Exercisability. The Common Stock Warrants are exercisable upon the date of Shareholder Approval until the fifth anniversary of the date of Shareholder Approval. The Common Stock Warrants may be exercised upon surrender of the warrant, with the exercise form included with the Common Stock Warrant completed and executed as indicated. If we fail to maintain the effectiveness of the registration statement and current prospectus relating to the Common Stock issuable upon exercise of the Common Stock Warrants, the holders of the warrants shall have the right to exercise the warrants via a cashless exercise feature provided for in the Common Stock Warrants, until such time as there is an effective registration statement and current prospectus. See "— *Cashless Exercise*" below.

Exercise Limitation. A holder (together with its affiliates) may not exercise any portion of the Common Stock Warrants to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Common Stock Warrants up to 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Common Stock Warrants.

Exercise Price. The exercise price per whole share of our Common Stock purchasable upon the exercise of the Common Stock Warrants is $[●] per share of Common Stock. The warrants will be exercisable upon Shareholder Approval and may be exercised at any time up to the date that is the fifth anniversary of the date of Shareholder

Approval. The exercise price and number of shares of Common Stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including in the event of a stock dividend or recapitalization, reorganization, merger or consolidation. However, the Common Stock Warrants will not be adjusted for issuances of Common Stock at prices below their exercise price.

Cashless Exercise. If, at any time after the issuance of the Common Stock Warrants, a holder of the warrants exercises the warrants and a registration statement registering the issuance of the shares of Common Stock underlying the warrants under the Securities Act is not then effective or available (or a prospectus is not available for the resale of shares of Common Stock underlying the warrants), then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder shall instead receive upon such exercise (either in whole or in part) only the net number of shares of Common Stock determined according to a formula set forth in the Common Stock Warrants.

Fractional Shares. No fractional shares of Common Stock will be issued upon exercise of the warrants. If, upon exercise of a Common Stock Warrant, the holder would be entitled to receive a fractional interest in a share, we will, in our discretion and upon exercise, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price or round up to the next whole share.

Transferability. Subject to applicable laws, the Common Stock Warrants may be offered for sale, sold, transferred or assigned at the option of the holder without our consent.

Fundamental Transactions. In the event of a "fundamental transaction," as described in the Common Stock Warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding shares of Common Stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding Common Stock, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction. Notwithstanding the foregoing, in the event of a fundamental transaction, the holders of the Common Stock Warrants have the right to require us or a successor entity to redeem the Common Stock Warrants for cash in the amount of the Black-Scholes Value (as defined in the Common Stock Warrants) of the unexercised portion of the Common Stock Warrants concurrently with or within 30 days following the consummation of a fundamental transaction.

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

Pre-Funded Warrants

Overview. The following summary of certain terms and provisions of the Pre-Funded Warrants offered hereby is not complete and is subject to the form of Pre-Funded Warrant, which is filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions set forth in the form of Pre-Funded Warrant. Each Pre-Funded Warrant issued in this offering entitles the registered holder to purchase one share of our Common Stock at a purchase price equal to $[*] (equal to the purchase price per shares, minus $0.0001), subject to adjustment as discussed below, immediately following the issuance of such warrant and terminating at the time no Pre-Funded Warrants are outstanding. The Pre-Funded Warrants will be issued in certificated form.

Exercisability. The Pre-Funded Warrants are immediately exercisable at any time after their original issuance date until the Pre-Funded Warrants are exercised in full. The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

Exercise Limitation. A holder (together with its affiliates) may not exercise any portion of the Pre-Funded Warrants to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Pre-Funded Warrants up to 9.99% of the number of shares of our Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants.

Exercise Price. The exercise price per whole share of our Common Stock purchasable upon the exercise of the Pre-Funded Warrants is $0.0001 per share of Common Stock. The exercise price and number of shares of Common Stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including in the event of a stock dividend or recapitalization, reorganization, merger or consolidation.

Cashless Exercise. If, at any time after the issuance of the Pre-Funded Warrants, a holder of the warrants exercises the warrants and a registration statement registering the issuance of the shares of Common Stock underlying the warrants under the Securities Act is not then effective or available (or a prospectus is not available for the resale of shares of Common Stock underlying the warrants), then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder shall instead receive upon such exercise (either in whole or in part) only the net number of shares of Common Stock determined according to a formula set forth in the Pre-Funded Warrants.

Fractional Shares. No fractional shares of Common Stock will be issued upon exercise of the warrants. If, upon exercise of a Pre-Funded Warrant, the holder would be entitled to receive a fractional interest in a share, we will, in our discretion and upon exercise, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the exercise price or round up to the next whole share.

Transferability. Subject to applicable laws, the Pre-Funded Warrants may be offered for sale, sold, transferred or assigned at the option of the holder without our consent.

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

Rights as a Stockholder. Except by virtue of such holder's ownership of shares of our Common Stock, the holder of a Pre-Funded Warrant does not have the rights or privileges of a holder of our Common Stock, including any voting rights, until the holder exercises the warrant.

Authorized but Unissued Capital Stock

Delaware law does not require stockholder approval for any issuance of shares that are authorized and available for issuance. However, the listing requirements of Nasdaq require stockholder approval of certain issuances equal to or exceeding 20% of the then-outstanding voting power or the then-outstanding number of shares of Common Stock. These additional shares may be used for a variety of corporate purposes, including future public offerings, to raise additional capital or to facilitate acquisitions. Additionally, the number of authorized shares of any series of Common Stock or preferred stock may be increased or decreased (but not below the number of shares thereof outstanding) by the affirmative vote of the holders of a majority in voting power, irrespective of the provisions of Section 242(b)(2) of the DGCL.

The HCWB Board may generally issue shares of one or more series of preferred stock on terms designed to discourage, delay or prevent a change of control of HCWB or the removal of our management. Moreover, our authorized but unissued shares of preferred stock will be available for future issuances in one or more series without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, to facilitate acquisitions and employee benefit plans.

One of the effects of the existence of authorized and unissued and unreserved shares of Common Stock or preferred stock may be to enable HCWB's board of directors to issue shares to persons friendly to current management, which issuance could render more difficult or discourage an attempt to obtain control of HCWB by means of a merger, tender offer, proxy contest or otherwise, and thereby protect the continuity of our management and possibly deprive our stockholders of opportunities to sell their shares of Common Stock at prices higher than prevailing market prices.

Vacancies and Newly Created Directorships

The Charter provides that, subject to the rights granted to one or more series of preferred stock then outstanding, any newly-created directorship on the board of directors that results from an increase in the number of directors and any vacancies on our board of directors will be filled solely only by the affirmative vote of a majority of the remaining directors, even if less than a quorum, by a sole remaining director or by the stockholders.

Special Stockholder Meetings

The Charter provides that special meetings of our stockholders may be called at any time only by the board of directors acting pursuant to a resolution approved by the affirmative vote of a majority of the directors then in office, subject to the rights of holders of any series of preferred stock then outstanding.

Stockholder Action by Written Consent

Pursuant to Section 228 of the DGCL, any action required to be taken at any annual or special meeting of the stockholders of a Delaware corporation may be taken without a meeting, without prior notice, and without a vote if a consent or consents in writing, setting forth the action so taken, is or are signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares of our stock entitled to vote thereon were present and voted, unless our amended and restated certificate of incorporation provides otherwise. Subject to applicable law and the rights, if any, of the holders of any outstanding series of preferred stock or any other outstanding class or series of stock of HCWB, the Charter does not permit our holders of Common Stock to act by consent in writing.

Section 203 of the DGCL

HCWB will be subject to the provisions of Section 203 of the DGCL, which we refer to as "Section 203" regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, HCWB's board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or subsequent to the date of the transaction, the business combination is approved by HCWB's board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock.

The provisions of Delaware law and the provisions of the Charter and HCWB's Bylaws could have the effect of discouraging others from attempting hostile takeovers and as a consequence, they might also inhibit temporary fluctuations in the market price of Common Stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in HCWB's management. It is also possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders will have appraisal rights in connection with a merger or consolidation in which we are a constituent entity. Pursuant to the DGCL, stockholders who properly demand and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Court of Chancery of the State of Delaware, plus interest, if any, on the amount determined to be the fair value, from the effective time of the merger or consolidation through the date of payment of the judgment.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in our name to procure a judgment in our favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law. To bring such an action, the stockholder must otherwise comply with Delaware law regarding derivative actions.

Exclusive Forum for Certain Lawsuits

Our Charter requires, unless we consent in writing to the selection of an alternative forum, that (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee to us or our stockholders, (iii) any action asserting a claim against us, our directors, officers or employees arising pursuant to any provision of the DGCL or our Charter or bylaws, or (iv) any action asserting a claim against us, our directors, officers or employees governed by the internal affairs doctrine may be brought only in the Court of Chancery in the State of Delaware, except any claim (A) as to which the Court of Chancery of the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or (C) for which the Court of Chancery does not have subject matter jurisdiction, as to which the Court of Chancery and the federal district court for the District of Delaware shall have concurrent jurisdiction. If an action is brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, a court may determine that this provision is unenforceable, and to the extent it is enforceable, the provision may have the effect of discouraging lawsuits

against HCWB's directors and officers, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder.

Notwithstanding the foregoing, our Charter provides that the exclusive forum provision will not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Additionally, unless we consent in writing to the selection of an alternative forum, the federal courts shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act against us or any of our directors, officers, other employees, or agents. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these provisions. We note, however, that there is uncertainty as to whether a court would enforce this provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Section 22 of the Securities Act creates concurrent jurisdiction for state and federal courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors to corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. The Charter includes a provision that eliminates the personal liability of directors for monetary damages to the corporation or its stockholders for any breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. The effect of these provisions is to eliminate the rights of us and our stockholders, through stockholders' derivative suits on our behalf, to recover monetary damages from a director for breach of fiduciary duty as a director, including breaches resulting from grossly negligent behavior. However, exculpation does not apply to any director if the director has breached such director's duty of loyalty, acted in bad faith, knowingly or intentionally violated the law, authorized illegal dividends, redemptions or repurchases or derived an improper benefit from his or her actions as a director.

The limitation of liability provision in the Charter may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

There is currently no pending material litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought.

Listing

The Common Stock of HCWB is listed on Nasdaq under the symbol "HCWB".

SECURITIES ACT RESTRICTIONS ON RESALE OF COMMON STOCK

Rule 144

Pursuant to Rule 144 under the Securities Act ("Rule 144"), a person who has beneficially owned restricted shares of Common Stock of HCWB for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been an affiliate of HCWB at the time of, or at any time during the three months preceding, a sale and (ii) HCWB is subject to the Exchange Act periodic reporting requirements for at least three months before the sale and has filed all required reports under Section 13 or 15(d) of the Exchange Act during the 12 months (or such shorter period as it was required to file reports) preceding the sale.

Persons who have beneficially owned restricted shares of Common Stock of HCWB for at least six months but who are affiliates of HCWB at the time of, or at any time during the three months preceding, a sale would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the average weekly reported trading volume of Common Stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales by affiliates of HCWB under Rule 144 are also limited by manner of sale provisions and notice requirements and by the availability of current public information about HCWB.

PLAN OF DISTRIBUTION

We are offering on a reasonable best efforts basis up to 7,691,124 Units, based on an assumed public offering price of $0.6501 per Unit for gross proceeds of up to approximately $5.0 million before deduction of placement agent fees and offering expenses. The final public offering price per share will be determined between us and the placement agent based upon a number of factors, including based on market conditions at the time of pricing, our history and our prospects, the industry in which we operate, our past and present operating results and the general condition of the securities markets at the time of this offering and may be at a discount to the current market price. There is no minimum amount of proceeds that is a condition to closing of this offering. The actual amount of gross proceeds, if any, in this offering could vary substantially from the gross proceeds from the sale of the maximum amount of securities being offered in this prospectus.

Pursuant to a placement agency agreement, dated as of [●],2026, we have engaged Maxim to act as our exclusive placement agent to solicit offers to purchase the securities offered by this prospectus. The placement agent is not purchasing or selling any securities, nor is it required to arrange for the purchase and sale of any specific number or dollar amount of securities, other than to use its "reasonable best efforts" to arrange for the sale of the securities by us. Therefore, we may not sell the entire amount of securities being offered. The terms of this offering are subject to market conditions and negotiations between us, the placement agent and prospective investors. The placement agent does not guarantee that it will be able to raise new capital in any prospective offering. The placement agent may engage sub-agents or selected dealers to assist with the offering. The placement agency agreement provides that the placement agent's obligations are subject to conditions contained in the placement agency agreement.

Investors purchasing securities offered hereby will have the option to execute a securities purchase agreement with us. In addition to the rights and remedies available to all investors in this offering under federal and state securities laws, the investors who enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. Investors who do not enter into a securities purchase agreement shall rely solely on this prospectus in connection with the purchase of our securities in this offering.

There is no minimum number of shares to be sold or minimum aggregate offering proceeds for this offering to close. We expect this offering to be completed not later than two trading days following the commencement of this offering and we will deliver all securities issued in connection with this offering delivery versus payment ("DVP")/receipt versus payment ("RVP") upon our receipt of investor funds. Accordingly, neither we nor the placement agent has made any arrangements to place investor funds in an escrow account or trust account since the placement agent will not receive investor funds in connection with the sale of securities offered hereunder.

We will deliver the securities being issued to the investors upon receipt of investor funds for the purchase of the securities offered pursuant to this prospectus. We expect to deliver the securities being offered pursuant to this prospectus on or about [●], 2026, subject to satisfaction of certain conditions.

Placement Agent Fees and Expenses

Upon the closing of this offering, we will pay the placement agent a cash transaction fee equal to 7.0% of the aggregate gross cash proceeds to us from the sale of the securities in the offering. In addition, we will reimburse the placement agent for certain of its out-of-pocket expenses incurred in connection with this offering, including the placement agent's legal fees, and actual travel and reasonable out-of-pocket expenses if this offering is completed, in an amount not to exceed $65,000.

The following table shows the public offering price, placement agent fees and proceeds, before expenses, to us, assuming the sale of all shares in this offering and no sale of any Pre-Funded Warrants in this offering.

	Per Unit Consisting of Common Stock and Warrants	Per Unit Consisting of Pre-Funded Warrants and Warrants	Total
Public offering price			
Placement agent fees			
Proceeds to us, before expenses			

We estimate that the total expenses of the offering, including registration and filing fees, printing fees and legal and accounting expenses, but excluding the placement agent fees, will be approximately $415,000, all of which are payable by us. This figure includes, among other things, the placement agent's expenses (including the legal fees, costs and expenses for the placement agent's legal counsel) that we have agreed to reimburse.

In accordance with FINRA Rule 5110, we disclose that within the 180-day period prior to the filing of this registration statement, we paid Maxim, who is acting as placement agent in this offering, an aggregate of approximately $290,000 for a cash fee and reimbursements of certain out-of-pocket expenses in connection with financial advisory services provided to the Company. Such payments were made in connection with services rendered prior to this offering and were not paid in connection with the distribution of the securities offered hereby. These amounts are deemed underwriting compensation for purposes of FINRA Rule 5110.

Lock-Up Agreements

We have agreed to use our best efforts to cause each of our officers, directors and holders of five percent (5.0%) or more of our outstanding shares of common stock have agreed for a period of six (6) months after this offering is complete, subject to certain exceptions not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any shares of our common stock or other securities convertible into or exercisable or exchangeable for our common stock for a period without the prior written consent of the placement agent, subject to certain exceptions.

The placement agent may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the placement agent will consider, among other factors, the security holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

We have also agreed to similar lock-up restrictions on the issuance and sale of our securities for 60 days following the closing of this offering, subject to certain exceptions. In addition, subject to an exception, we have agreed to not issue any securities that are subject to a price reset based on the trading prices of our Common Stock or upon a specified or contingent event in the future, or enter into any agreement to issue securities at a future determined price for a period of 60 days following the closing date of this offering.

Tail

Upon the closing or termination (other than for cause as defined in FINRA Rule 5110(g)(5)(B)) of this offering, then if within six (6) months following such time, the Company, or any successor to or any subsidiary of the Company, completes any public or private offering of equity, equity-linked or debt securities or other capital raising activity of the Company with, or receives any proceeds from, any of the investors who were contacted by the placement agent in connection with the Offering, then the Company or such successor or subsidiary will pay the placement agent upon the closing of such financing or receipt of such proceeds the compensation equivalent to 7.0% of the gross proceeds of such financing.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the placement agent may be required to make for these liabilities.

Regulation M

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent acting as principal. Under these rules and regulations, the placement agent (i) may not engage in any stabilization activity in connection with our securities and (ii) may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Determination of Offering Price

The actual public offering price of the securities we are offering were negotiated among us, the placement agent and the investors in the offering based on the trading of our Common Stock prior to the offering, among other things. Other factors considered in determining the public offering price of the securities we are offering include our history and prospects, the market price of our Common Stock on Nasdaq, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, the general conditions of the securities markets at the time of the offering and such other factors as were deemed relevant.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the placement agent or an affiliate. Other than this prospectus, the information on the placement agent's website and any information contained in any other website maintained by the placement agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent, and should not be relied upon by investors. In connection with the offering, the placement agent or selected dealers may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this offering.

Other than the prospectus in electronic format, the information on the placement agent's website and any information contained in any other website maintained by the placement agent is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent in its capacity as placement agent and should not be relied upon by investors.

Certain Relationships

The placement agent and its affiliates have and may in the future provide, from time to time, investment banking and financial advisory services to us in the ordinary course of business, for which they may receive customary fees and commissions.

Selling Restrictions

Other than in the United States, no action has been taken by us or the placement agent that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required.

The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published, in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to this offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia. No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (ASIC), in relation to the offering.

This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the Corporations Act) and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the securities may only be made to persons (the Exempt Investors) who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the securities without disclosure to investors under Chapter 6D of the Corporations Act.

The securities applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring securities must observe such Australian on-sale restrictions.

This prospectus contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Brazil. The offer of securities described in this prospectus will not be carried out by means that would constitute a public offering in Brazil under Law No. 6,385, of December 7, 1976, as amended, under the CVM Rule (Instrução) No. 400, of December 29, 2003. The offer and sale of the securities have not been and will not be registered with the Comissão de Valores Móbilearios in Brazil. The securities have not been offered or sold, and will not be offered or sold in Brazil, except in circumstances that do not constitute a public offering or distribution under Brazilian laws and regulations.

Canada. The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31 103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the

time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33 105 Underwriting Conflicts (NI 33 105), the placement agent is not required to comply with the disclosure requirements of NI 33-105 regarding conflicts of interest in connection with this offering.

Cayman Islands. No invitation, whether directly or indirectly, may be made to the public in the Cayman Islands to subscribe for our securities.

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any securities may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any securities may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by us or any placement agent of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase any securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Hong Kong. The contents of this prospectus have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this prospectus, you should obtain independent professional advice. Please note that (i) our shares may not be offered or sold in Hong Kong, by means of this prospectus or any document other than to "professional investors" within the meaning of Part I of Schedule 1 of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) (SFO) and any rules made thereunder, or in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong) (CO) or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO, and (ii) no advertisement, invitation or document relating to our shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the SFO and any rules made thereunder.

Israel. This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of the shares is directed only at,

investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals", each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

The People's Republic of China. This prospectus may not be circulated or distributed in the PRC and the shares may not be offered or sold, and will not offer or sell to any person for re-offering or resale directly or indirectly to any resident of the PRC except pursuant to applicable laws, rules and regulations of the PRC. For the purpose of this paragraph only, the PRC does not include Taiwan and the special administrative regions of Hong Kong and Macau.

Switzerland. The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (the SIX) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). Accordingly, no public distribution, offering or advertising, as defined in CISA, its implementing ordinances and notices, and no distribution to any non-qualified investor, as defined in CISA, its implementing ordinances and notices, shall be undertaken in or from Switzerland, and the investor protection afforded to acquirers of interests in collective investment schemes under CISA does not extend to acquirers of securities.

Taiwan. The securities have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the securities in Taiwan.

United Kingdom. This prospectus has only been communicated or caused to have been communicated and will only be communicated or caused to be communicated as an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act of 2000, or the FSMA) as received in connection with the issue or sale of our Common Stock in circumstances in which Section 21(1) of the FSMA does not apply to us. All applicable provisions of the FSMA will be complied with in respect to anything done in relation to our Common Stock in, from or otherwise involving the United Kingdom.

TAXATION

United States Federal Income Tax Considerations

The following discussion is a summary of the U.S. federal income tax considerations generally applicable to the ownership and disposition of our Common Stock, which we refer to collectively as our securities. This summary is based upon U.S. federal income tax law as of the date of this prospectus, which is subject to change or differing interpretations, possibly with retroactive effect. This summary does not discuss all aspects of U.S. federal income taxation that may be important to particular investors in light of their individual circumstances, including investors subject to special tax rules (e.g., financial institutions, insurance companies, broker-dealers, tax-exempt organizations (including private foundations), taxpayers that have elected mark-to-market accounting, S corporations, regulated investment companies, real estate investment trusts, passive foreign investment companies, controlled foreign corporations, investors that will hold our securities as part of a straddle, hedge, conversion, or other integrated transaction for U.S. federal income tax purposes or investors that have a functional currency other than the U.S. dollar), all of whom may be subject to tax rules that differ materially from those summarized below. In addition, this summary does not discuss other U.S. federal tax consequences (e.g., estate or gift tax), any state, local, or non-U.S. tax considerations, the Medicare tax or any alternative minimum tax consideration. In addition, this summary is limited to investors that will hold our securities as a "capital asset," as defined under the U.S. Tax Code (generally, property held for investment). No ruling from the Internal Revenue Service, (the "*IRS*") has been or will be sought regarding any matter discussed herein. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax aspects set forth below.

A "*non-U.S. Holder*" is a beneficial holder of securities who or that is neither a U.S. Holder nor a partnership for U.S. federal income tax purposes.

If a partnership (including an entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds our securities, the tax treatment of a partner, member or other beneficial owner of such partnership will generally depend upon the status of the partner, member or other beneficial owner, the activities of the partnership, and certain determinations made at the partner, member or other beneficial owner level. If you are a partner, member, or other beneficial owner of a partnership holding our securities, you are urged to consult your tax advisor regarding the tax consequences of the ownership and disposition of our securities.

THIS DISCUSSION OF U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. PROSPECTIVE HOLDERS SHOULD CONSULT THEIR TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF OWNING AND DISPOSING OF OUR SECURITIES, AS WELL AS THE APPLICATION OF ANY, STATE, LOCAL, AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSIDERATIONS.

U.S. Holders

Taxation of Distributions

We do not intend to pay cash dividends for the foreseeable future. If we pay distributions to U.S. Holders of shares of our Common Stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of current and accumulated earnings and profits will constitute a return of capital that will be applied against and reduce (but not below zero) the U.S. Holder's adjusted tax basis in our Common Stock. Any remaining excess will be treated as gain realized on the sale or other disposition of the Common Stock and will be treated as described under "*U.S. Holders-Gain or Loss on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock*" below.

Dividends we pay to a U.S. Holder that is a taxable corporation generally will qualify for the dividends received deduction if the requisite holding period is satisfied. With certain exceptions (including dividends treated as investment income for purposes of investment interest deduction limitations), and provided certain holding period requirements are met, dividends we pay to a non-corporate U.S. Holder will generally constitute "qualified dividends" that will be subject to tax at the maximum tax rate accorded to long-term capital gains.

Gain or Loss on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock

A U.S. Holder will recognize gain or loss on the sale, taxable exchange or other taxable disposition of our Common Stock. Any such gain or loss will be capital gain or loss, and will be long-term capital gain or loss if the U.S. Holder's holding period for such Common Stock exceeds one year. The amount of gain or loss recognized will generally be equal to the difference between (1) the sum of the amount of cash and the fair market value of any property received in such disposition and (2) the U.S. Holder's adjusted tax basis in such Common Stock. A U.S. Holder's adjusted tax basis in its Common Stock will generally equal the U.S. Holder's acquisition cost (i.e., the amount paid for the Common Stock or as discussed below, an amount equal to the sum of the U.S. Holder's initial investment in a Warrant and the exercise price of such Warrant) less any prior distributions treated as a return of capital. The deductibility of capital losses is subject to limitations.

Non-U.S. Holders

Taxation of Distributions

As discussed above, we do not intend to pay cash dividends for the foreseeable future. In general, any distributions (including constructive distributions) we make to a non-U.S. Holder of shares of our Common Stock, to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles), will constitute dividends for U.S. federal income tax purposes and, provided such dividends are not effectively connected with the non-U.S. Holder's conduct of a trade or business within the United States, we will be required to withhold tax from the gross amount of the dividend at a rate of 30%, unless such non-U.S. Holder is eligible for a reduced rate of withholding tax under an applicable income tax treaty and provides proper certification of its eligibility for such reduced rate (generally on an IRS Form W-8BEN or W-8BEN-E, as applicable). In the case of any constructive dividend, it is possible that this tax would be withheld from any amount owed to a non-U.S. Holder by the applicable withholding agent, including cash distributions on other property subsequently paid or credited to such non-U.S. Holder. Any distribution not constituting a dividend will be treated first as reducing (but not below zero) the non-U.S. Holder's adjusted tax basis in its shares of our Common Stock and, to the extent such distribution exceeds the non-U.S. Holder's adjusted tax basis, as gain realized from the sale or other disposition of the Common Stock, which will be treated as described under "*Non-U.S. Holders-Gain on Sale, Exchange, Redemption, Expiration or Other Taxable Disposition of Common Stock*" below. In addition, if we determine that we are classified as a "United States real property holding corporation" (see "*Non-U.S. Holders-Gain on Sale, Exchange, Redemption, Expiration or Other Taxable Disposition of Common Stock*" below), we will withhold 15% of the fair market value of any property distributed that exceeds our current and accumulated earnings and profits.

Dividends we pay to a non-U.S. Holder that are effectively connected with such non-U.S. Holder's conduct of a trade or business within the United States (or, if an applicable tax treaty so requires, are attributable to a U.S. permanent establishment or fixed base maintained by the non-U.S. Holder) will generally not be subject to U.S. withholding tax, provided such non-U.S. Holder complies with certain certification and disclosure requirements (generally by providing an IRS Form W-8ECI). Instead, such dividends will generally be subject to U.S. federal income tax, net of certain deductions, at the same graduated individual rates or corporate rates applicable to U.S. Holders. If the non-U.S. Holder is a corporation, dividends that are effectively connected income may also be subject to a "branch profits tax" at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty).

Gain on Sale, Exchange, Redemption, Expiration or Other Taxable Disposition of Common Stock

A non-U.S. Holder will generally not be subject to U.S. federal income or withholding tax in respect of gain recognized on a sale, taxable exchange or other taxable disposition of our Common Stock unless:

- the gain is effectively connected with the conduct of a trade or business by the non-U.S. Holder within the United States (or, if an applicable tax treaty so requires, is attributable to a U.S. permanent establishment or fixed base maintained by the non-U.S. Holder);
- the non-U.S. Holder is an individual who is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met; or
- (i) we are or have been a "United States real property holding corporation" for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period that the non-U.S. Holder held our Common Stock, and (ii) shares of our Common Stock (A) are not regularly traded on an established securities market or (B) are regularly traded on an established securities market, but the non-U.S. Holder has owned, directly or constructively (including through ownership of warrants), more than 5% of our Common Stock at any time within the shorter of the five year period preceding the disposition or such non-U.S. Holder's holding period for the shares of our Common Stock. There can be no assurance that our Common Stock will be treated as regularly traded on an established securities market for this purpose.

Gain described in the first bullet point above will be subject to tax at generally applicable U.S. federal income tax rates. Any gains described in the first bullet point above of a non-U.S. Holder that is a foreign corporation may also be subject to an additional "branch profits tax" at a 30% rate (or lower applicable treaty rate). Gain described in the second bullet point above will generally be subject to a 30% U.S. federal income tax. Non-U.S. Holders are urged to consult their tax advisors regarding possible eligibility for benefits under income tax treaties.

If the third bullet point above applies to a non-U.S. Holder, gain recognized by such non-U.S. holder on the sale, exchange or other disposition of our Common Stock will be subject to tax at generally applicable U.S. federal income tax rates. In addition, if our stock is not regularly traded on an established securities market for this purpose, a buyer of our Common Stock from such non-U.S. Holder may be required to withhold U.S. income tax at a rate of 15% of the amount realized upon such disposition. We will be classified as a United States real property holding corporation if the fair market value of our "United States real property interests" equals or exceeds 50% of the sum of the fair market value of our worldwide real property interests plus our other assets used or held for use in a trade or business, as determined for U.S. federal income tax purposes. We believe that we currently are, and expect to remain for the foreseeable future, a United States real property holding corporation. Non-U.S. Holders are urged to consult their tax advisors regarding the application of these rules.

Additional U.S. Federal Tax Considerations

Additional Tax on Net Investment Income

In addition to regular U.S. federal income tax, certain U.S. Holders that are individuals, estates or trusts are subject to a 3.8% tax on all or a portion of their "net investment income," which may include all or a portion of their net gain from the sale, exchange or other disposition of Common Stock, or dividends with respect to Common Stock. Each U.S. Holder is urged to consult its own tax advisor regarding the application of this tax.

Backup Withholding and Additional Information Reporting

In general, information returns may be filed with the IRS in connection with actual or constructive dividends paid to a U.S. Holder in respect of our securities, and the proceeds received by a U.S. Holder from the sale, exchange or other disposition of our securities within the United States or through certain U.S.-related financial intermediaries will be subject to U.S. information reporting rules, unless a U.S. Holder is a corporation or other exempt recipient and properly establishes its rights to an exemption. Backup withholding at a rate of 24% may

apply to such payments if a U.S. Holder does not establish an exemption from backup withholding or fails to provide a correct taxpayer identification number and make any other required certifications.

In general, information returns may be filed with the IRS in connection with dividends paid to non-U.S. Holders, and the proceeds received by a non-U.S. Holder from the sale, exchange or other disposition of our securities within the United States or through certain U.S.-related financial intermediaries. Copies of the information returns reporting dividends, and any withholding may also be made available to the tax authorities in the country in which the non-U.S. Holder resides under the provisions of a treaty or agreement. A non-U.S. Holder may be subject to backup withholding (currently at a rate of 24%) in connection with actual or constructive dividends with respect to our securities and the proceeds from the sales, exchange or other disposition of our securities unless the non-U.S. Holder provides to the applicable withholding agent a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable form) certifying under penalties of perjury that the non-U.S. Holder is not a United States person, or otherwise qualifies for an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or credit against U.S. federal income tax liability, provided that the required information is timely furnished to the IRS. Holders are urged to consult their own tax advisor regarding the information reporting and backup withholding rules.

Foreign Account Tax Compliance Act

Sections 1471 through 1474 of the U.S. Tax Code and the Treasury Regulations and administrative guidance promulgated thereunder (commonly referred as the "*Foreign Account Tax Compliance Act*" or "*FATCA*") generally impose withholding at a rate of 30% in certain circumstances on actual or constructive dividends in respect of our securities which are held by or through certain foreign financial institutions (including investment funds), unless any such institution (1) enters into, and complies with, an agreement with the IRS to report, on an annual basis, information with respect to interests in, and accounts maintained by, the institution that are owned by certain U.S. persons and by certain non-U.S. entities that are wholly or partially owned by U.S. persons and to withhold on certain payments, or (2) if required under an intergovernmental agreement between the United States and an applicable foreign country, reports such information to its local tax authority, which will exchange such information with the U.S. Department of Treasury. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Accordingly, the entity through which our securities are held will affect the determination of whether such withholding is required. Similarly, dividends in respect of our securities held by an investor that is a non-financial non-U.S. entity that does not qualify under certain exceptions will generally be subject to withholding at a rate of 30%, unless such entity either (1) certifies to us or the applicable withholding agent that such entity does not have any "substantial United States owners" or (2) provides certain information regarding the entity's "substantial United States owners," which will in turn be provided to the U.S. Department of Treasury. Prospective investors should consult their tax advisors regarding the possible implications of FATCA on their investment in our securities.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon by Clark Hill PLC, Chicago, Illinois and Los Angeles, California. Ellenoff Grossman & Schole LLP, New York, New York, is acting as counsel to the placement agent in connection with certain legal matters related to this offering.

EXPERTS

The financial statements of HCWB as of December 31, 2024 and for the year ended December 31, 2024 incorporated in this prospectus and elsewhere in the registration statement of which it forms a part by reference to the Annual Report on Form 10-K filed on March 28, 2025 have been so incorporated in reliance on the report of Crowe LLP ("Crowe"), independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The financial statements of HCWB as of December 31, 2023 and for the year ended December 31, 2023 incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP ("Grant Thornton"), independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

Change in Auditor

On September 20, 2024, HCWB dismissed its previous independent accounting firm, Grant Thornton and engaged Crowe as its independent auditor.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act. In accordance with the Exchange Act, we file periodic reports, proxy and information statements and other information with the SEC. Our filings with the SEC are available to the public over the Internet at the SEC's website at www.sec.gov. You may also find documents we filed on our website at www.hcwbiologics.com. Information contained in or accessible through our website does not constitute a part of this prospectus and is not incorporated by reference herein.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated, and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-40591) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

(i) our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, as filed with the SEC on March 28, 2025;

(ii) our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2025, as filed with the SEC on May 15, 2025, June 30, 2025, as filed with the SEC on August 18, 2025, and September 30, 2025, as filed on November 14, 2025; and

(iii) Current Reports on Form 8-K filed after December 31, 2024.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

HCW Biologics Inc.
2929 N Commerce Parkway
Miramar, FL 33025
(954) 842-2024

HCW BIOLOGICS INC.

Up to 7,691,124 Units, each consisting of:

One Share of Common Stock or One Pre-Funded Warrant to Purchase One Share of Common Stock and One Common Stock Warrant Each to Purchase One Share of Common Stock

Up to 7,691,124 Shares of Common Stock or Shares of Common Stock Underlying Pre-Funded Warrants

Up to 7,691,124 Shares of Common Stock Underlying Common Stock Warrants

PROSPECTUS

February , 2026

PART II

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the fees and expenses payable by the registrant in connection with the issuance and distribution of the securities being registered. All of the amounts shown are estimates, except for the SEC registration fee:

Legal fees and expenses	$ 170,000
Accounting fees and expenses	120,000
SEC registration fee	1,500
Miscellaneous fees and expenses	125,000
Total	$ 416,500

Item 14. Indemnification of Directors and Officers.

Section 145 of the DGCL concerning indemnification of officers, directors, employees and agents is set forth below.

Section 145. Indemnification of officers, directors, employees and agents; insurance.

(a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

(b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

(c) (1) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. For indemnification with respect to any act or omission occurring after December 31, 2020, references to "officer" for purposes of these paragraphs (c)(1) and (2) of this section shall mean only a person who at the time of such act or omission is deemed to have consented to service by the delivery of process to the registered agent of the corporation pursuant to § 3114(b) of Title 10 (for purposes of this sentence only, treating residents of this State as if they were nonresidents to apply § 3114(b) of Title 10 to this sentence).

(2) The corporation may indemnify any other person who is not a present or former director or officer of the corporation against expenses (including attorneys' fees) actually and reasonably incurred by such person to the extent he or she has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein.

(d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer of the corporation at the time of such determination, (1) By a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum, or (2) By a committee of such directors designated by majority vote of such directors, even though less than a quorum, or (3) If there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, or (4) By the stockholders.

(e) Expenses (including attorneys' fees) incurred by an officer or director of the corporation in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the corporation or by persons serving at the request of the corporation as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.

(f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to or repeal or elimination of the certificate of incorporation or the bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

(g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power

to indemnify such person against such liability under this section. For purposes of this subsection, insurance shall include any insurance provided directly or indirectly (including pursuant to any fronting or reinsurance arrangement) by or through a captive insurance company organized and licensed in compliance with the laws of any jurisdiction, including any captive insurance company licensed under Chapter 69 of Title 18, provided that the terms of any such captive insurance shall:

(1) Exclude from coverage thereunder, and provide that the insurer shall not make any payment for, loss in connection with any claim made against any person arising out of, based upon or attributable to any (i) personal profit or other financial advantage to which such person was not legally entitled or

(ii) deliberate criminal or deliberate fraudulent act of such person, or a knowing violation of law by such person, if (in the case of the foregoing paragraph (g)(1)(i) or (ii) of this section) established by a final, nonappealable adjudication in the underlying proceeding in respect of such claim (which shall not include an action or proceeding initiated by the insurer or the insured to determine coverage under the policy), unless and only to the extent such person is entitled to be indemnified therefor under this section;

(2) Require that any determination to make a payment under such insurance in respect of a claim against a current director or officer (as defined in paragraph (c)(1) of this section) of the corporation shall be made by an independent claims administrator or in accordance with the provisions of paragraphs (d)(1) through (4) of this section; and

(3) Require that, prior to any payment under such insurance in connection with any dismissal or compromise of any action, suit or proceeding brought by or in the right of a corporation as to which notice is required to be given to stockholders, such corporation shall include in such notice that a payment is proposed to be made under such insurance in connection with such dismissal or compromise.

For purposes of paragraph (g)(1) of this section, the conduct of an insured person shall not be imputed to any other insured person. A corporation that establishes or maintains a captive insurance company that provides insurance pursuant to this section shall not, solely by virtue thereof, be subject to the provisions of Title 18.

(h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

(i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

(j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation's obligation to advance expenses (including attorneys' fees).

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Article IV of the Company's By-laws provides:

Each person who was or is made a party to, or is threatened to be made a party to, or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, legislative or any other type whatsoever (a "Proceeding"), by reason of the fact that such person (or a person of whom such person is the legal representative), is or was a director or officer of the Corporation or, while serving as a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee, agent or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans (for purposes of this Article VI, an "Indemnitee"), shall be indemnified and held harmless by the Corporation to the fullest extent permitted by the DGCL as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expenses, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes and penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith, provided such Indemnitee acted in good faith and in a manner that the Indemnitee reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or Proceeding, had no reasonable cause to believe the Indemnitee's conduct was unlawful. Such indemnification shall continue as to an Indemnitee who has ceased to be a director or officer of the Corporation and shall inure to the benefit of such Indemnitees' heirs, executors and administrators. Notwithstanding the foregoing, subject to Section 6.5 of these Bylaws, the Corporation shall indemnify any such Indemnitee seeking indemnity in connection with a Proceeding (or part thereof) initiated by such Indemnitee only if such Proceeding (or part thereof) was authorized by the Board or such indemnification is authorized by an agreement approved by the Board.

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

Item 15. Recent Sales of Unregistered Securities.

During the past three years, we sold the following securities without registration under the Securities Act:

Sale of Common Stock and Warrants

On November 18, 2024, the Company entered into a securities purchase agreement ("SPA") with Armistice Capital Master Fund Ltd. ("Armistice") pursuant to which the Company agreed to offer and sell (i) in a registered

direct offering (the "Registered Offering") (x) 104,000 shares (the "Shares") of the Company's Common Stock, par value $0.0001 per share (the "Common Stock"), and (y) pre-funded warrants to purchase up to 63,925 shares of Common Stock (the "Pre-Funded Warrants") and (ii) in a concurrent private placement (the "Private Placement" and together with the Registered Offering, the "Offering"), unregistered warrants to purchase up to an aggregate of 154,275 shares of Common Stock ("Armistice Warrants"). The combined purchase price for each Share and accompanying Armistice Warrant to purchase one share of Common Stock was $41.20 per Share and the combined purchase price for each Pre-Funded Warrant and accompanying Common Stock Warrant to purchase one share of Common Stock was $40.196.

The Common Stock and Pre-Funded Warrants were each sold with an accompanying Armistice Warrant to purchase one share of Common Stock, and the Common Stock and Pre-Funded Warrants were immediately separated from the Armistice Warrants and were issued separately. The Armistice Warrants have an exercise price of $41.20 per share, are exercisable immediately, and expire on the five year anniversary of the date of issuance. The Pre-Funded Warrants have an exercise price of $0.0001, are exercisable immediately and will not expire until exercised in full.

The shares of Common Stock and Pre-Funded Warrants in the Registered Offering were offered pursuant to a shelf registration statement on Form S-3 (File No. 333-266991), which was declared effective by the U.S. Securities and Exchange Commission (the "SEC") on August 26, 2022. The Registered Offering has been made by means of a prospectus supplement filed with the SEC on November 20, 2024 that forms a part of such registration statement.

The gross proceeds to the Company from the Registered Offering were approximately $6.9 million before deducting the placement agent's fees and other offering expenses payable by the Company. The Offering closed on November 20, 2024.

On November 18, 2024, the Company entered into a placement agency agreement (the "Placement Agency Agreement") with Maxim Group LLC ("Maxim" or the "Placement Agent") pursuant to which the Company engaged the Placement Agent as the exclusive placement agent in connection with the Offering. The Company agreed to pay the Placement Agent a cash fee equal to 7.0% of gross proceeds from the sale of Shares, Pre-Funded Warrants and Common Stock Warrants to the Purchaser. The Company also agreed to reimburse the Placement Agent for out-of-pocket expenses, including the reasonable legal fees of its counsel not to exceed $50,000. The Placement Agent Agreement also contains representations, warranties, indemnification and other provisions customary for transactions of this nature.

On February 20, 2024, the Company completed a $2.5 million private placement of shares of Common Stock with certain of its officers and directors at a price of $56.00 per share. The Company issued 44,643 shares of Common Stock in connection with the offering. The shares have not been registered and will not be sold or transferred except as permitted under law and pursuant to registration or exemption therefrom. The Board of Directors and Audit Committee of the Board of Directors reviewed the transaction under the Company's policy for Related Party Transactions (the "Policy") and determined that the transaction was in compliance with the Policy.

On February 20, 2025, the Company entered into an equity purchase agreement (the "ELOC Purchase Agreement") with Square Gate Capital Master Fund, LLC – Series 4 ("Square Gate") pursuant to which, upon the terms and subject to the conditions and limitations set forth therein, the Company has the right to direct Square Gate to purchase up to an aggregate of $20,000,000 of shares of our Common Stock, plus, at the Company's option upon utilizing the initial $20,000,000, an additional amount equal to the lesser of 100% of the Company's market capitalization at the time of exercise of such option or $20,000,000, over the 36-month term of the ELOC Purchase Agreement. The Company issued 9,616 shares of our Common Stock to Square Gate on March 12, 2025, as its Commitment Fee under the ELOC Purchase Agreement (the "Commitment Shares").

The holders of $6.6 million of the outstanding principal of the Secured Notes have agreed to and effected the conversion of the Secured Notes held by them into shares of the Company's Common Stock at a conversion price of $26.00 per share ("Conversion Shares"), warrants to purchase approximately $3.3 million of the Company's Common Stock at an exercise price of $26.00 per share ("Conversion Warrants"), and the right to their pro rata share of 49.11% of the proceeds of the Company's shares of Wugen common stock ("Wugen Shares"), if and when such shares are ever sold (the "Wugen Proceeds"). The conversion was approved at a Special Meeting of Stockholders held on March 31, 2025 and was effected pursuant to the terms of the Conversion Amendment. On May 7, 2025, pursuant to the Conversion Amendment, the Secured Notes held by the participating noteholders were cancelled, and the Company issued a total of 253,083 unregistered shares of Common Stock (which are subject to a 180-day lock-up) and warrants to purchase an additional 126,540 shares of Common Stock at an exercise price of $26.00 per share.

On November 19, 2025, the Company entered into a warrant inducement agreement with Armistice Capital Master Fund Ltd. (the "Inducement Agreement"), pursuant to which Armistice agreed to immediately exercise in full all of its outstanding warrants originally issued on November 20, 2024 (as amended on May 15, 2025) and on May 15, 2025 (the "Existing Warrants") to purchase an aggregate of 1,510,205 shares of Common Stock at an amended exercise price of $2.66 per share, resulting in aggregate gross proceeds to the Company of approximately $4.0 million before fees and expenses. In consideration for the immediate exercise of the Existing Warrants, the Company issued to Armistice, in a private placement pursuant to Section 4(a)(2) of the Securities Act, new unregistered Common Stock Purchase Warrants (the "New Warrants") to purchase up to 3,020,410 shares of Common Stock at an exercise price of $2.41 per share. The New Warrants are exercisable immediately and expire five and one-half years from their issuance. The New Warrants and the shares of Common Stock issuable upon their exercise have not been registered under the Securities Act. The Company agreed, pursuant to the Inducement Agreement, to file a registration statement covering the resale of the shares issuable upon exercise of the New Warrants. Maxim Group LLC acted as a financial advisor in connection with this November 19, 2025 warrant inducement.

Item 16. Exhibits.

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which immediately precedes the Signature Page, and which Exhibit Index is hereby incorporated by reference.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

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

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

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

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

registration statement; provided, however, that paragraphs (i), (ii) and (iii) do not apply if the registration statement is on Form S-1 and the information required to be included in a post- effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

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

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

(4) that, for the purpose of determining liability under the Securities Act to any purchaser:

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

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

Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use; and

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

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

(i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

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

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

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

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment

by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

PART II

Item 16. Exhibits.

EXHIBIT INDEX

Exhibit No.	Exhibit title	Incorporated by reference				Filed or furnished herewith
		Form	File No.	Exhibit No.	Filing date	
1.1	Form of Placement Agent Agreement					X
3.1	Amended and Restated Certificate of Incorporation	8-K	001-40591	3.1	07/26/2021	
3.1a	Certificate of Amendment of Certificate of Incorporation, filed March 31, 2025.	8-K	001-40591	3.1a	04/01/2025	
3.1b	Certificate of Correction of the Certificate of Amendment of Certificate of Incorporation, filed April 1, 2025.	8-K	001-40591	3.1b	04/01/2025	
3.2	Amended and Restated Bylaws	8-K	001-40591	3.2	07/26/2021	
4.1	Specimen Stock Certificate	S-1/A	333-256510	4.1	07/09/2021	
4.2	Description of Securities	10-K	001-40591	4.2	03/29/2022	
4.3	Form of New Warrant	8-K	001-40591	4.1	11/20/2025	
4.4	Form of Pre-Funded Warrant Purchase Warrant	S-1	333-293396	4.4	2/11/2026	
4.5	Form of Common Stock Warrant					X
5.1	Opinion of Clark Hill PLC					X
10.1	Form of Indemnification Agreement between HCW Biologics Inc. and each of its officers and directors.	S-1/A	333-256510	10.1	07/09/2021	
10.2+	2019 Equity Incentive Plan, as amended, and forms of agreement thereunder.	S-1	333-256510	10.2	07/09/2021	
10.3+	First Amendment to 2019 Equity Incentive Plan.	S-1	333-256510	10.3	07/09/2021	
10.4+	2021 Equity Incentive Plan and forms of agreement thereunder	S-1	333-256510	10.4	07/09/2021	
10.5+	Employment Agreement, dated July 6, 2021, between Peter Rhode and HCW Biologics Inc.	S-1	333-256510	10.6	07/09/2021	
10.6+	Employment Agreement, dated October 9, 2019, between Rebecca Byam and HCW Biologics Inc.	S-1	333-256510	10.7	07/09/2021	
10.7+	Non-Employee Director Compensation Policy.	S-1	333-256510	10.8	07/09/2021	
10.8+	Employment Agreement, dated June 18, 2021, between Dr. Hing C. Wong and HCW Biologics Inc.	S-1	333-256510	10.13	07/09/2021	

Exhibit No.	Exhibit title	Incorporated by reference				Filed or furnished herewith
		Form	File No.	Exhibit No.	Filing date	
10.9+	Executive Incentive Bonus Plan	S-1	333-256510	10.11	07/09/2021	
10.10†	Exclusive License Agreement, dated December 24, 2020, between HCW Biologics Inc. and Wugen, Inc.	S-1	333-256510	10.10	07/09/2021	
10.11†	Master Services Agreement, dated March 14, 2019, between HCW Biologics Inc. and EirGenix, Inc.	S-1	333-256510	10.12	07/09/2021	
10.12†#	Purchase and Sale Agreement, by and between HCW Biologics Inc. and Wai 3300 Corporate Way, LLC, dated May 27, 2022	10-Q	001-40591	10.1	08/12/2022	
10.13	Capital on Demand Sales Agreement, dated August 19, 2022, by and between HCW Biologics Inc. and Jones Trading Institutional Services LLC	S-3	333-266991	1.2	08/19/2022	
10.14#	Loan Agreement by and between HCW Biologics Inc. and Cogent Bank, dated August 15, 2022	10-Q	001-40591	10.1	11/07/2022	
10.15#	Mortgage and Security Agreement by and between HCW Biologics Inc. and Cogent Bank, dated August 15, 2022	10-Q	001-40591	10.2	11/07/2022	
10.16	Form of Subscription Agreement, dated February 20, 2024, by and between the Company and the Subscribers party thereto	8-K	001-40591	10.1	02/22/2024	
10.17	Form of Subscription Agreement, dated February 20, 2024, by and between the Company and the Subscribers party thereto	10-Q	001-40591	10.5	05/15/2024	
10.18	Form of Amended and Restated Senior Secured Note Purchase Agreement, dated July 2, 2024, by and between the Company and the Purchaser party thereto	10-Q	001-40591	10.1	08/14/2024	
10.19	Form of Senior Secured Promissory Note by and between the Company and the Holder party thereof	10-Q	001-40591	10.2	08/14/2024	
10.20	Form of Amended and Restated Pledge Agreement, dated July 2, 2024, by and among the Company, Escrow Agent and Noteholder parties thereto	10-Q	001-40591	10.3	08/14/2024	
10.21	Form of Escrow Agreement, dated July 2, 2024, by and among the Company, Escrow Agent and Noteholder parties thereto	10-Q	001-40591	10.4	08/14/2024	
10.22	Form of First Amendment to the Amended and Restated Senior Secured Note Purchase Agreement, dated September 30, 2024, by and between the Company and Purchaser parties thereto	10-Q	001-40591	10.5	11/14/2024	

Exhibit No.	Exhibit title	Incorporated by reference				Filed or furnished herewith
		Form	File No.	Exhibit No.	Filing date	
10.23†#	Settlement Agreement and Release, dated July 13, 2024, by and between the Company and Altor BioScience, LLC, NantCell, Inc., and ImmunityBio, Inc.	10-Q	001-40591	10.6	11/14/2024	
10.24#	Placement Agency Agreement, dated November 18, 2024, between the Company and Maxim Group LLC.	8-K	001-40591	10.1	11/20/2024	
10.25#	Securities Purchase Agreement, dated November 18, 2024, between the Company and Purchaser	8-K	001-40591	10.2	11/20/2024	
10.26#	Equity Purchase Agreement, dated February 20, 2025, between the Company and Square Gate Master Fund—Series 4.	8-K	001-40591	10.1	02/21/2025	
10.27	Registration Rights Agreement, dated February 20, 2025, between the Company and Square Gate Master Fund— Series 4.	8-K	001-40591	10.2	02/21/2025	
10.28	Form of Promissory Note, dated May 8, 2025, between Company and Holder	10-Q	001-40591	10.4	05/15/2025	
10.29	Form of Guaranty and Pledge Agreement dated May 8, 2025, between Dr. Hing C. Wong and Lender	10-Q	001-40591	10.5	05/15/2025	
10.30	Form of Securities Purchase Agreement, dated May 13, 2025, between Company and Purchaser	8-K	001-40591	10.2	05/15/2025	
10.31	Letter Agreement to the License, Research and Co-Development Agreement, dated March 17, 2025, between Company and WY Biotech Co. Ltd.	10-Q	001-40591	10.14	08/18/2025	
10.32	Confirmation of Letter of Acceptance of Deliverable from Company by WY Biotech Co. Ltd., dated May 30, 2025	10-Q	001-40591	10.15	08/18/2025	
10.33	Second Letter Agreement to the License, Research and Co-Development Agreement, dated July 13, 2025, between Company and WY Biotech Co. Ltd.	10-Q	001-40591	10.16	08/18/2025	
10.34	Exclusive License Agreement 12-month Suspension, dated May 29, 2025, between the Company and Wugen, Inc.	10-Q	001-40591	10.17	08/18/2025	
10.35	First Amendment to the Equity Purchase Agreement, dated August 14, 2025, between the Company and Square Gate Master Fund—Series 4.	8-K	001-40591	10.1	08/15/2025	

Exhibit No.	Exhibit title	Incorporated by reference				Filed or furnished herewith
		Form	File No.	Exhibit No.	Filing date	
10.36	Second Amendment to Amended and Restated Senior Secured Note Purchase Agreement and Related Agreements, dated May 1, 2025, between Company and Holder	10-Q	001-40591	10.12	08/18/2025	
10.37	Form of Common Stock Warrant dated May 7, 2025, between Company and Holder	10-Q	001-40591	10.13	08/18/2025	
10.38	Exclusive License Agreement 12-month Suspension, dated May 29, 2025, between the Company and Wugen, Inc.	10-Q	001-40591	10.17	08/18/2025	
10.39	Form of Inducement Agreement between the Company and Armistice Capital Management, LLC	8-K	001-40591	10.1	11/20/2025	
10.40†#	Amended and Restated License, Research and Co-Development Agreement, dated November 17, 2025, between Beijing Trimmune Biotech Co., Ltd., and the Company	S-1	333-293396	10.40	2/11/2026	
10.41	Form of Securities Purchase Agreement					X
10.42	Form of Lock Up Agreement	S-1	333-293396	10.42	2/11/2026	
10.43†#	Amendment 1 to Amended and Restated License, Research and Co-Development Agreement, dated January 27, 2026 between Beijing Trimmune Biotech Co., Ltd., and the Company	S-1	333-293396	10.43	2/11/2026	
10.44†#	Shareholder Purchase Agreement, dated October 10, 2025, between co-founders of Beijing Trimmune Biotech Co., Ltd., including the Company	S-1	333-293396	10.44	2/11/2026	
23.1a	Consent of Independent Registered Public Accounting Firm (Grant Thornton, Predecessor)					X
23.1b	Consent of Independent Registered Public Accounting Firm (Crowe, Successor)					X
23.2	Opinion of Clark Hill PLC (included in Exhibit 5.1)					X
97.1	HCW Biologics Inc. Compensation Recovery Policy	10-K	001-40591	97.1	04/01/2024	
99.1	Audit Committee Charter of the Registrant	S-1	333-293396	99.1	2/11/2026	
99.2	Compensation Committee Charter of the Registrant	S-1	333-293396	99.2	2/11/2026	
99.3	HCW Biologics Inc. Related Party Transaction Policy	S-1	333-293396	99.3	2/11/2026	
107	Filing Fee Table					X

† *Certain portions of this document that constitute confidential information have been redacted in accordance with Regulation S-K, Item 60 1(b)(10).*
+ *Indicates management contract or compensatory plan.*
# *Certain information in this document has been excluded pursuant to Item 601(a)(5) or (a)(6) of Regulation S-K. The Registrant agrees to furnish supplementally such information to the SEC upon request.*

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, in the city of Miramar, State of Florida, on February 17, 2026.

HCW BIOLOGICS INC.

By: /s/ Hing C. Wong
Name: Hing C. Wong
Title: *Founder & Chief Executive Officer*

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized.

Signature	Title	Date
/s/ Scott T. Garrett Scott T. Garrett	Chairman of the Board of Directors	February 17, 2026
/s/ Rebecca Byam Rebecca Byam	Chief Financial Officer	February 17, 2026
/s/ Hing C. Wong Hing C. Wong	Chief Executive Officer	February 17, 2026
/s/ Rick S. Greene Rick S. Greene	Director	February 17, 2026
/s/ Lisa M. Giles Lisa M. Giles	Director	February 17, 2026

By: */s/ Hing C. Wong*
Hing C. Wong, Attorney-in-Fact

EXHIBIT 1.1

FORM OF PLACEMENT AGENCY AGREEMENT

[ ], 2026

Maxim Group LLC
300 Park Avenue, 16th Floor
New York, NY 10022

Ladies and Gentlemen:

Subject to the terms and conditions herein (this "Agreement"), HCW Biologics Inc., a Delaware corporation (including any successor thereto, the "Company"), hereby agrees to sell up to an aggregate of $[ ] of units, each unit consisting of (1) either (i) one share (each a "Share" and collectively, the "Shares") of Common Stock of the Company, par value $0.0001 per share (the "Common Stock") or (ii) one pre-funded warrant in lieu thereof to purchase one share of Common Stock (the "Pre-Funded Warrants") and (2) one warrant to purchase one share of Common Stock (the "Warrants,", and the Shares issuable upon exercise of the Pre-Funded Warrants and Warrants, the "Warrant Shares", and the Shares, the Pre-Funded Warrants, the Warrants and the Warrant Shares, collectively, the "Securities") directly to various investors (each, an "Investor" and, collectively, the "Investors") through Maxim Group LLC as placement agent (the "Placement Agent"). The documents executed and delivered by the Company and the Investors in connection with the Offering (as defined below), including, without limitation, a securities purchase agreement (the "Purchase Agreement"), shall be collectively referred to herein as the "Transaction Documents." The purchase price to the Investors for the Securities will be negotiated between the Company and the Investors, in consultation with the Placement Agent. The Placement Agent may retain other brokers or dealers to act as sub-agents or selected-dealers on its behalf in connection with the Offering. Capitalized terms used herein and not otherwise defined shall have the meanings set forth for them in the Purchase Agreement.

The Company hereby confirms its agreement with the Placement Agent as follows:

Section 1. Agreement to Act as Placement Agent.

(a) On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement, the Placement Agent shall be the exclusive placement agent in connection with the offering and sale by the Company of the Securities pursuant to the Company's registration statement on Form S-1 (File No. 333- [ ]), as amended (and including any registration statement prepared and filed by the Company in accordance with Rule 462(b) pursuant to the Securities Act) (the "Registration Statement"), with the terms of such offering (the "Offering") to be subject to market conditions and negotiations between the Company, the Placement Agent and the prospective Investors. The Placement Agent will act on a reasonable best efforts basis and the Company agrees and acknowledges that there is no guarantee of the successful placement of the Securities, or any portion thereof, in the prospective Offering. Under no circumstances will the Placement Agent or any of its "Affiliates" (as defined below) be obligated to underwrite or purchase any of the Securities for its own account or otherwise provide any financing. The Placement Agent shall act solely as the Company's agent and not as principal. The Placement Agent shall have no authority to bind the Company with respect to any prospective offer to purchase Securities and the Company shall have the sole right to accept offers to purchase Securities and may reject any such offer, in whole or in part. Subject to the terms and conditions hereof, payment of the purchase price for, and delivery of, the Securities shall be made at one or more closings (each a "Closing"

and the date on which each Closing occurs, a "Closing Date"). The Closing of the issuance of the Securities shall occur via "Delivery Versus Payment", *i.e.*, on the Closing Date, the Company shall issue the Securities directly to the account designated by the Placement Agent and, upon receipt of such Securities, the Placement Agent shall electronically deliver such Securities to the applicable Investor and payment shall be made by the Placement Agent (or its clearing firm) by wire transfer to the Company. As compensation for services rendered, on each Closing Date, the Company shall pay to the Placement Agent the fees and expenses set forth below:

(i) A cash fee equal to 7.0% of the gross proceeds received by the Company from the sale of the Securities at the Closing; and

(ii) The Company also agrees to reimburse Placement Agent's expenses up to a maximum of $65,000 for all Closings, unless otherwise agreed by the Company and the Placement Agent, payable immediately upon and only in the event of the Closing of the Offering.

(b) Upon the Closing or termination (other than for cause as defined in FINRA Rule 5110(g)(5)(B)) of the Offering, if within six (6) months following such time, the Company completes any financing of equity, equity-linked or debt or other capital raising activity with, or receives any proceeds from, any of the investors contacted by the Placement Agent in connection with the Offering the Company will pay the Placement Agent upon the closing of such financing or receipt of such proceeds the compensation equivalent to that set forth in Section 1(a)(i).

(c) The term of the Placement Agent's exclusive engagement will be as set forth in the Engagement Agreement (as defined below). Notwithstanding anything to the contrary contained herein, the provisions concerning confidentiality, indemnification and contribution contained herein and the Company's obligations contained in the indemnification provisions will survive any expiration or termination of this Agreement, and the Company's obligation to pay fees actually earned and payable and to reimburse expenses actually incurred and reimbursable pursuant to Section 1 hereof and which are permitted to be reimbursed under FINRA Rule 5110(g)(4)(A), will survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to limit the ability of the Placement Agent or its Affiliates to pursue, investigate, analyze, invest in, or engage in investment banking, financial advisory or any other business relationship with Persons (as defined below) other than the Company. As used herein (i) "Persons" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind and (ii) "Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act of 1933, as amended (the "Securities Act").

Section 2. Representations, Warranties and Covenants of the Company. The Company hereby represents, warrants and covenants to the Placement Agent as of the date hereof, and as of each Closing Date, as follows:

(a) Securities Law Filings. The Company has filed with the Securities and Exchange Commission (the "Commission") the Registration Statement under the Securities Act, which was initially filed on February [__], 2026, as amended, and declared effective on [ ], 2026 for the registration of the Securities under the Securities Act. Following the determination of pricing among the Company and the prospective Investors introduced to the Company by the Placement Agent, the Company will file with the Commission pursuant to Rules 430A and/or 424(b) under

the Securities Act, and the rules and regulations (the "Rules and Regulations") of the Commission promulgated thereunder, a final prospectus relating to the placement of the Securities, their respective pricings and the plan of distribution thereof and will advise the Placement Agent of all further information (financial and other) with respect to the Company required to be set forth therein. Such registration statement, at any given time, including the exhibits thereto filed at such time, as amended at such time, is hereinafter called the "Registration Statement"; such prospectus in the form in which it appears in the Registration Statement at the time of effectiveness is hereinafter called the "Preliminary Prospectus"; and the final prospectus, in the form in which it will be filed with the Commission pursuant to Rules 430A and/or 424(b) (including the Preliminary Prospectus as it may be amended or supplemented) is hereinafter called the "Final Prospectus." The Registration Statement at the time it originally became effective is hereinafter called the "Original Registration Statement." Any reference in this Agreement to the Registration Statement, the Original Registration Statement, the Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the documents incorporated by reference therein (the "Incorporated Documents"), if any, which were or are filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), at any given time, as the case may be; and any reference in this Agreement to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Original Registration Statement, the Preliminary Prospectus or the Final Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act after the date of this Agreement, or the issue date of the Preliminary Prospectus or the Final Prospectus, as the case may be, deemed to be incorporated therein by reference. All references in this Agreement to financial statements and schedules and other information which is "contained," "included," "described," "referenced," "set forth" or "stated" in the Registration Statement, the Preliminary Prospectus or the Final Prospectus (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Preliminary Prospectus or the Final Prospectus, as the case may be. As used in this paragraph and elsewhere in this Agreement, "Time of Sale Disclosure Package" means the Preliminary Prospectus, any securities purchase agreement between the Company and the Investors, the final terms of the Offering provided to the Investors (orally or in writing) and any issuer free writing prospectus as defined in Rule 433 of the Act (each, an "Issuer Free Writing Prospectus"), if any, that the parties hereto shall hereafter expressly agree in writing to treat as part of the Time of Sale Disclosure Package. The term "any Prospectus" shall mean, as the context requires, the Preliminary Prospectus, the Final Prospectus, and any supplement to either thereof. The Company has not received any notice that the Commission has issued or intends to issue a stop order suspending the effectiveness of the Registration Statement or the use of the Preliminary Prospectus or any prospectus supplement or intends to commence a proceeding for any such purpose.

(b) Assurances. The Original Registration Statement, as amended (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, at the time it became effective, complied in all material respects with the Securities Act and the applicable Rules and Regulations and did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Preliminary Prospectus and the Final Prospectus, each as of its respective date, comply or will comply in all material respects with the Securities Act and the applicable Rules and Regulations. Each of the Preliminary Prospectus and the Final Prospectus, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading.

The Incorporated Documents, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the applicable Rules and Regulations promulgated thereunder, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to Incorporated Documents incorporated by reference in the Preliminary Prospectus or Final Prospectus), in light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. Except for this Agreement and the Transaction Documents, there are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. Except for this Agreement and the Transaction Documents, there are no contracts or other documents required to be described in the Preliminary Prospectus or Final Prospectus, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required.

(c) Offering Materials. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to each Closing Date, any offering material in connection with the offering and sale of the Securities other than the Time of Sale Disclosure Package.

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

(e) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the transactions contemplated pursuant to the Time of Sale Disclosure Package, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby to which it is a party do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien (as defined below) upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any

property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect, as defined in the Securities Purchase Agreement. For the purposes of this Agreement, "Lien" means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

(f) Certificates. Any certificate signed by an officer of the Company and delivered to the Placement Agent or to counsel for the Placement Agent shall be deemed to be a representation and warranty by the Company to the Placement Agent as to the matters set forth therein.

(g) Reliance. The Company acknowledges that the Placement Agent will rely upon the accuracy and truthfulness of the foregoing representations and warranties and hereby consents to such reliance.

(h) Forward-Looking Statements. No forward-looking statements (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in the Time of Sale Disclosure Package have been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(i) Statistical or Market-Related Data. Any statistical, industry-related and market-related data included or incorporated by reference in the Time of Sale Disclosure Package, are based on or derived from sources that the Company reasonably and in good faith believes to be reliable and accurate, and such data agree with the sources from which they are derived.

(j) Certain Fees; FINRA Affiliations. Except as set forth in the Registration Statement and Prospectus, no brokerage or finder's fees or commissions are or will be payable by the Company, any Subsidiary or Affiliate of the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. There are no other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Placement Agent's compensation, as determined by FINRA. Other than payments to the Placement Agent for this Offering or as set forth in the Registration Statement and Prospectus, the Company has not made and has no agreements, arrangements or understanding to make any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member participating in the offering as defined in FINRA Rule 5110 (a "Participating Member"); or (iii) any person or entity that has any direct or indirect affiliation or association with any Participating Member, within the 180-day period preceding the initial filing of the Registration Statement through the 60-day period after the effective date of the Registration Statement (the "Effective Date"). None of the net proceeds of the Offering will be paid by the Company to any Participating Member or its affiliates, except as specifically authorized herein. To the Company's knowledge, no officer, director or any beneficial owner of 10% or more of the Company's Common Stock or Common Stock Equivalents (as defined in the Purchase Agreement) has any direct or indirect affiliation or association with any Participating Member in the Offering. Except for securities purchased on the open market, no Company

Affiliate is an owner of stock or other securities of any Participating Member. To the Company's knowledge, no Company Affiliate has made a subordinated loan to any Participating Member. No proceeds from the sale of the Securities (excluding Placement Agent compensation as disclosed in the Registration Statement and the Prospectus) will be paid to any Participating Member, any persons associated with a Participating Member or an affiliate of a Participating Member. Except as disclosed in the Prospectus, the Company has not issued any warrants or other securities or granted any options, directly or indirectly, to the Placement Agent within the 180-day period prior to the initial filing date of the Prospectus. To the Company's knowledge, except for securities issued to the Placement Agent as disclosed in the Prospectus, no person to whom securities of the Company have been privately issued within the 180-day period prior to the initial filing date of the Prospectus is a Participating Member, is a person associated with a Participating Member or is an affiliate of a Participating Member. To the Company's knowledge, no Participating Member in the Offering has a conflict of interest with the Company. For this purpose, a "conflict of interest" exists when a Participating Member, the parent or affiliate of a Participating Member or any person associated with a Participating Member in the aggregate beneficially own 10% or more of the Company's outstanding subordinated debt or common equity, or 10% or more of the Company's preferred equity. "FINRA member participating in the Offering" includes any associated person of a Participating Member in the Offering, any member of such associated person's immediate family and any affiliate of a Participating Member in the Offering. When used in this Section 3.1(j) the term "affiliate of a FINRA member" or "affiliated with a FINRA member" means an entity that controls, is controlled by or is under common control with a FINRA member. The Company will advise the Placement Agent and its legal counsel, Ellenoff Grossman & Schole LLP (the "Placement Agent Counsel") if it learns that any officer, director or owner of 10% or more of the Company's outstanding Common Stock or Common Stock Equivalents is or becomes an affiliate or associated person of a Participating Member.

(k) Board of Directors. The Board of Directors is comprised of the persons set forth under the heading of the Company's Annual Report on Form 10-K captioned "Directors, Executive Officers and Corporate Governance." The qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder applicable to the Company and the rules of the Nasdaq Capital Market (the "Trading Market"). In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent" as defined under the rules of the Trading Market.

(l) D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires most recently completed by each of the Company's directors and officers is true and correct in all respects (other than changes in securities ownership from the date of such questionnaires) and the Company has not become aware of any information which would cause the information disclosed in such questionnaires to become inaccurate and incorrect.

(m) Representations, Warranties and Covenants Incorporated by Reference. Each of the representations, warranties and covenants (together with any related disclosure schedules thereto) made to the Investors in the Purchase Agreement is hereby incorporated herein by reference (as though fully restated herein) and is hereby made to, and in favor of, the Placement Agent

Section 3. Delivery and Payment. Each Closing shall occur at the offices of the Placement Agent Counsel at 1345 Avenue of the Americas, New York, New York 10105 (or at such other place as shall be agreed upon by the Placement Agent, Investors, and the Company, or remotely by electronic

transmission). Subject to the terms and conditions hereof, at each Closing payment of the purchase price for the Securities sold on such Closing Date shall be made by Federal Funds wire transfer, against delivery of such Securities, and such Securities shall be registered in such name or names and shall be in such denominations, as the Placement Agent may request at least one business day before the time of purchase.

Deliveries of the documents with respect to the purchase of the Securities, if any, shall be made at the offices of Placement Agent Counsel, or remotely by electronic transmission. All actions taken at a Closing shall be deemed to have occurred simultaneously.

Section 4. Covenants and Agreements of the Company. The Company further covenants and agrees with the Placement Agent as follows:

(a) Registration Statement Matters. The Company will advise the Placement Agent promptly after it receives notice thereof of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Final Prospectus has been filed and will furnish the Placement Agent with copies thereof. The Company will file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 14 or 15(d) of the Exchange Act subsequent to the date of any Prospectus and for so long as the delivery of a prospectus is required in connection with the Offering. The Company will advise the Placement Agent, promptly after it receives notice thereof (i) of any request by the Commission to amend the Registration Statement or to amend or supplement any Prospectus or for additional information, (ii) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any order directed at any Incorporated Document, if any, or any amendment or supplement thereto or any order preventing or suspending the use of the Preliminary Prospectus or the Final Prospectus or any prospectus supplement or any amendment or supplement thereto or any post-effective amendment to the Registration Statement, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, of the institution or threatened institution of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or a Prospectus or for additional information, (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 4(a) that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement or the Prospectus untrue or that requires the making of any changes in the Registration Statement or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The Company shall use its best efforts to prevent the issuance of any such stop order or prevention or suspension of such use. If the Commission shall enter any such stop order or order or notice of prevention or suspension at any time, the Company will use its best efforts to obtain the lifting of such order at the earliest possible moment or will file a new registration statement and use its best efforts to have such new registration statement declared effective as soon as practicable. Additionally, the Company agrees that it shall comply with the provisions of Rules 424(b), 430A, 430B and 430C, as applicable, under the Securities Act, including with respect to the timely filing of documents thereunder, and will use its reasonable efforts to confirm that any filings made by the Company under such Rule 424(b) are received in a timely manner by the Commission.

(b) Blue Sky Compliance. The Company will cooperate with the Placement Agent and the Investors in endeavoring to qualify the Securities for sale under the securities laws of such jurisdictions (United States and foreign) as the Placement Agent and the Investors may reasonably request and will make such applications, file such documents, and furnish such information as may be reasonably required for that purpose, provided the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction where it is not now so qualified or required to file such a consent, and provided further that the Company shall not be required to produce any new disclosure document. The Company will, from time to time, prepare and file such statements, reports and other documents as are or may be required to continue such qualifications in effect for so long a period as the Placement Agent may reasonably request for distribution of the Securities. The Company will advise the Placement Agent promptly of the suspension of the qualification or registration of (or any such exemption relating to) the Securities for offering, sale or trading in any jurisdiction or any initiation or threat of any proceeding for any such purpose, and in the event of the issuance of any order suspending such qualification, registration or exemption, the Company shall use its best efforts to obtain the withdrawal thereof at the earliest possible moment.

(c) Amendments and Supplements to a Prospectus and Other Matters. The Company will comply with the Securities Act and the Exchange Act, and the rules and regulations of the Commission thereunder during Prospectus Delivery Period (as defined below), so as to permit the completion of the distribution of the Securities as contemplated in this Agreement, the Incorporated Documents and any Prospectus. If during the period in which a prospectus is required by law to be delivered in connection with the distribution of Securities contemplated by the Incorporated Documents or any Prospectus (the "Prospectus Delivery Period"), any event shall occur as a result of which, in the judgment of the Company or in the opinion of the Placement Agent or counsel for the Placement Agent, it becomes necessary to amend or supplement the Incorporated Documents or any Prospectus in order to make the statements therein, in the light of the circumstances under which they were made, as the case may be, not misleading, or if it is necessary at any time to amend or supplement the Incorporated Documents or any Prospectus or to file under the Exchange Act any Incorporated Document to comply with any law, the Company will promptly prepare and file with the Commission, and furnish at its own expense to the Placement Agent and to dealers, an appropriate amendment to the Registration Statement or supplement to the Registration Statement, the Incorporated Documents or any Prospectus that is necessary in order to make the statements in the Incorporated Documents and any Prospectus as so amended or supplemented, in the light of the circumstances under which they were made, as the case may be, not misleading, or so that the Registration Statement, the Incorporated Documents or any Prospectus, as so amended or supplemented, will comply with law. Before amending the Registration Statement or supplementing the Incorporated Documents or any Prospectus in connection with the Offering, the Company will furnish the Placement Agent with a copy of such proposed amendment or supplement and will not file any such amendment or supplement to which the Placement Agent reasonably objects.

(d) Copies of any Amendments and Supplements to a Prospectus. The Company will furnish the Placement Agent, without charge, during the period beginning on the date hereof and ending on the later of the last Closing Date of the Offering, as many copies of any Prospectus or prospectus supplement and any amendments and supplements thereto, as the Placement Agent may reasonably request.

(e) Free Writing Prospectus. The Company covenants that it will not, unless it obtains the prior written consent of the Placement Agent, make any offer relating to the Securities that would constitute a Company Free Writing Prospectus or that would otherwise constitute a

"free writing prospectus" (as defined in Rule 405 of the Securities Act) required to be filed by the Company with the Commission or retained by the Company under Rule 433 of the Securities Act. In the event that the Placement Agent expressly consents in writing to any such free writing prospectus (a "Permitted Free Writing Prospectus"), the Company covenants that it shall (i) treat each Permitted Free Writing Prospectus as a Company Free Writing Prospectus, and (ii) comply with the requirements of Rule 164 and 433 of the Securities Act applicable to such Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping.

(f) Transfer Agent. The Company will maintain, at its expense, a registrar and transfer agent for the Shares.

(g) Earnings Statement. As soon as practicable and in accordance with applicable requirements under the Securities Act, but in any event not later than 18 months after the last Closing Date, the Company will make generally available to its security holders and to the Placement Agent an earnings statement, covering a period of at least 12 consecutive months beginning after the last Closing Date, that satisfies the provisions of Section 11(a) and Rule 158 under the Securities Act.

(h) Periodic Reporting Obligations. During the Prospectus Delivery Period, the Company will duly file, on a timely basis, with the Commission and the Trading Market all reports and documents required to be filed under the Exchange Act within the time periods and in the manner required by the Exchange Act.

(i) Additional Documents. The Company will enter into any subscription, purchase or other customary agreements as the Placement Agent or the Investors deem necessary or appropriate to consummate the Offering, all of which will be in form and substance reasonably acceptable to the Placement Agent and the Investors. The Company agrees that the Placement Agent may rely upon, and each is a third party beneficiary of, the representations and warranties, and applicable covenants, set forth in any such purchase, subscription or other agreement with Investors in the Offering.

(j) No Manipulation of Price. Neither the Company, nor to its knowledge, any of its employees, directors or stockholders, has taken or will take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under the Exchange Act, or otherwise stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities.

(k) Acknowledgment. The Company acknowledges that any advice given by the Placement Agent to the Company is solely for the benefit and use of the Board of Directors and may not be used, reproduced, disseminated, quoted or referred to, without the Placement Agent's prior written consent.

(l) Announcement of Offering. The Company acknowledges and agrees that the Placement Agent may, subsequent to the Closing, make public its involvement with the Offering.

(m) Reliance on Others. The Company confirms that it will rely on its own counsel and accountants for legal and accounting advice.

(n) Research Matters. By entering into this Agreement, the Placement Agent does not provide any promise, either explicitly or implicitly, of favorable or continued research

coverage of the Company and the Company hereby acknowledges and agrees that the Placement Agent's selection as a placement agent for the Offering was in no way conditioned, explicitly or implicitly, on the Placement Agent providing favorable or any research coverage of the Company. In accordance with FINRA Rule 2241(b)(2), the parties acknowledge and agree that the Placement Agent has not directly or indirectly offered favorable research, a specific rating or a specific price target, or threatened to change research, a rating or a price target, to the Company or inducement for the receipt of business or compensation. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Placement Agent with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by the Placement Agent's investment banking divisions. The Company acknowledges that the Placement Agent is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short position in debt or equity securities of the Company.

(o) Subsequent Equity Sales.

(i) From the date hereof until sixty (60) days after the first Closing Date, neither the Company nor any Subsidiary shall (i) issue, enter into any agreement to issue or announce the issuance or proposed issuance of any Common Stock or Common Stock Equivalents or (ii) file any registration statement or amendment or supplement thereto, other than the Prospectus or filing a registration statement on Form S-8 in connection with any employee benefit plan, in each case without prior written consent of the Placement Agent, which shall not be unreasonably withheld, delayed, denied, or conditioned.

(ii) From the date hereof until sixty (60) days after the first Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at-the-market offering", whereby the Company may issue securities at a future determined price. Any Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

(iii) Notwithstanding the foregoing, this Section 4(o) shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance (each as defined in the Purchase Agreement).

(p) Lock-Up Agreements. The Company shall not amend, modify, waive or terminate any provision of any of the Lock-Up Agreements (as defined in the Purchase Agreement) except to extend the term of the lock-up period and shall enforce the provisions of each Lock-Up Agreement in accordance with its terms. If any party to a Lock-Up Agreement breaches any provision of a Lock-Up Agreement, the Company shall promptly use its best efforts to seek specific performance of the terms of such Lock-Up Agreement.

(q) FINRA. The Company shall advise the Placement Agent (who shall make an appropriate filing with FINRA) if it is aware that any officer, director, 10% or greater stockholder of the Company or Person that received the Company's unregistered equity securities in the past 180 days is or becomes an affiliate or associated person of a FINRA member firm prior to the earlier of the termination of this Agreement or the 60-day period after the Effective Date

Section 5. Conditions of the Obligations of the Placement Agent. The obligations of the Placement Agent hereunder shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 2 hereof, in each case as of the date hereof and as of each Closing Date as though then made, to the timely performance by each of the Company of its covenants and other obligations hereunder on and as of such dates, and to each of the following additional conditions:

(a) Accountants' Comfort Letters. On the date hereof, the Placement Agent shall have received, and the Company shall have caused to be delivered to the Placement Agent, letters from Crowe LLP and Grant Thornton LLP, addressed to the Placement Agent, dated as of the date hereof, in form and substance satisfactory to the Placement Agent. The letters shall not disclose any change in the condition (financial or other), earnings, operations, business or prospects of the Company from that set forth in the Incorporated Documents or the applicable Prospectus or prospectus supplement, which, in the Placement Agent's sole judgment, is material and adverse and that makes it, in the Placement Agent's sole judgment, impracticable or inadvisable to proceed with the Offering of the Securities as contemplated by such Prospectus.

(b) Compliance with Registration Requirements; No Stop Order; No Objection from the FINRA. Each Prospectus (in accordance with Rule 424(b)) and "free writing prospectus" (as defined in Rule 405 of the Securities Act), if any, shall have been duly filed with the Commission, as appropriate; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no order preventing or suspending the use of any Prospectus shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; no order having the effect of ceasing or suspending the distribution of the Securities or any other securities of the Company shall have been issued by any securities commission, securities regulatory authority or stock exchange and no proceedings for that purpose shall have been instituted or shall be pending or, to the knowledge of the Company, contemplated by any securities commission, securities regulatory authority or stock exchange; all requests for additional information on the part of the Commission shall have been complied with; and FINRA shall have raised no objection to the fairness and reasonableness of the placement terms and arrangements.

(c) Corporate Proceedings. All corporate proceedings and other legal matters in connection with this Agreement, the Registration Statement and each Prospectus, and the registration, sale and delivery of the Securities, shall have been completed or resolved in a manner reasonably satisfactory to the Placement Agent's counsel, and such counsel shall have been furnished with such papers and information as it may reasonably have requested to enable such counsel to pass upon the matters referred to in this Section 5.

(d) No Material Adverse Change. Subsequent to the execution and delivery of this Agreement and prior to each Closing Date, in the Placement Agent's sole judgment after consultation with the Company, there shall not have occurred any Material Adverse Effect or any material adverse change or development involving a prospective material adverse change in the condition or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement and Prospectus ("Material Adverse Change").

(e) Opinion of Counsel for the Company. The Placement Agent shall have received on each Closing Date the opinion of Clark Hill PLC, counsel to the Company, dated as of such Closing Date, including, without limitation, a negative assurance letter addressed to the Placement Agent and in form and substance satisfactory to the Placement Agent.

(f) Opinion of Intellectual Property Counsel for the Company. The Placement Agent shall have received on each Closing Date the opinion of Fish & Richardson P.C., Intellectual Property counsel to the Company, dated as of such Closing Date, addressed to the Placement Agent and in form and substance satisfactory to the Placement Agent.

(g) Officers' Certificate. The Placement Agent shall have received on each Closing Date a certificate of the Company, dated as of such Closing Date, signed by the Chief Executive Officer and Chief Financial Officer of the Company, to the effect that, and the Placement Agent shall be satisfied that, the signers of such certificate have reviewed the Registration Statement, the Incorporated Documents, the Prospectus, and this Agreement and to the further effect that:

(i) The representations and warranties of the Company in this Agreement are true and correct, in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects), as if made on and as of the Closing Date, and the Company has complied or will comply with all the agreements and satisfied, in all reasonable respects, all the conditions on its part to be performed or satisfied at or prior to such Closing Date;

(ii) No stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus has been issued and no proceedings for that purpose have been instituted or are pending or, to the Company's knowledge, threatened under the Securities Act; no order having the effect of ceasing or suspending the distribution of the Securities or any other securities of the Company has been issued by any securities commission, securities regulatory authority or stock exchange in the United States and no proceedings for that purpose have been instituted or are pending or, to the knowledge of the Company, contemplated by any securities commission, securities regulatory authority or stock exchange in the United States;

(iii) When the Registration Statement became effective, at the time of sale, and at all times subsequent thereto up to the delivery of such certificate, the Registration Statement and the Incorporated Documents, if any, when such documents became effective or were filed with the Commission, and any Prospectus, contained all material information required to be included therein by the Securities Act and the Exchange Act and the applicable rules and regulations of the Commission thereunder, as the case may be, and in all material respects conformed to the requirements of the Securities Act and

the Exchange Act and the applicable rules and regulations of the Commission thereunder, as the case may be, and the Registration Statement and the Incorporated Documents, if any, and any Prospectus, did not and do not include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading (provided, however, that the preceding representations and warranties contained in this paragraph (iii) shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by the Placement Agent expressly for use therein) and, since the Effective Date of the Registration Statement, there has occurred no event required by the Securities Act and the rules and regulations of the Commission thereunder to be set forth in the Incorporated Documents which has not been so set forth; and

(iv) Subsequent to the respective dates as of which information is given in the Registration Statement, the Incorporated Documents and any Prospectus, there has not been: (a) any Material Adverse Change; (b) any transaction that is material to the Company and the Subsidiaries taken as a whole, except transactions entered into in the ordinary course of business; (c) any obligation, direct or contingent, that is material to the Company and the Subsidiaries taken as a whole, incurred by the Company or any Subsidiary, except obligations incurred in the ordinary course of business; (d) any material change in the capital stock (except changes thereto resulting from the exercise of outstanding stock options or warrants or conversion of outstanding preferred stock) or outstanding indebtedness of the Company or any Subsidiary; (e) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company; or (f) any loss or damage (whether or not insured) to the property of the Company or any Subsidiary which has been sustained or will have been sustained which has a Material Adverse Effect.

(h) Chief Financial Officer Certificate. On the Closing Date, the Placement Agent shall have received a certificate from the Company's Chief Financial Officer with respect to certain financial and accounting matters, dated as of the Closing Date, addressed to the Placement Agent in form and substance satisfactory to the Placement Agent.

(i) Bring-down Comfort Letters. On each Closing Date, the Placement Agent shall have received from Crowe LLP and Grant Thornton LLP, or such other independent registered public accounting firm of the Company, letters dated as of such Closing Date, in form and substance satisfactory to the Placement Agent, to the effect that they reaffirm the statements made in the letter furnished pursuant to subsection (a) of this Section 5, except that the specified date referred to therein for the carrying out of procedures shall be no more than two business days prior to such Closing Date.

(j) Stock Exchange Listing. The Common Stock shall be registered under the Exchange Act and shall be listed on the Trading Market, and the Company shall not have taken any action designed to terminate, or likely to have the effect of terminating, the registration of the Common Stock under the Exchange Act or delisting or suspending from trading the Common Stock from the Trading Market, nor shall the Company have received any information suggesting that the Commission or the Trading Market is contemplating terminating such registration or listing.

(k) Lock-Up Agreements. On the Closing Date, the Placement Agent shall have received the executed Lock-Up Agreement from each of the Company's directors and executive officers.

(l) Additional Documents. On or before each Closing Date, the Placement Agent and counsel for the Placement Agent shall have received such information and documents as they may reasonably require for the purposes of enabling them to pass upon the issuance and sale of the Securities as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties, or the satisfaction of any of the conditions or agreements, herein contained.

If any condition specified in this Section 5 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Placement Agent by notice to the Company at any time on or prior to a Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 6 (Payment of Expenses), Section 7 (Indemnification and Contribution) and Section 8 (Representations and Indemnities to Survive Delivery) shall at all times be effective and shall survive such termination.

Section 6. Payment of Expenses. The Company shall be responsible for and pay all expenses relating to the Offering, including, without limitation, all filing fees and communication expenses relating to the registration of the Securities to be sold in the Offering with the Commission and the filing of the offering materials with FINRA; all fees and expenses relating to the listing of such Securities on such stock exchange as the Company and the Placement Agent together determine; all fees, expenses and disbursements relating to background checks of the Company's officers and directors; all fees, expenses and disbursements relating to the registration or qualification of such Securities under the "blue sky" securities laws of such states and other jurisdictions as the Placement Agent may reasonably designate (including, without limitation, all filing and registration fees, and the fees and disbursements of the Placement Agent's counsel at Closing)); all fees and expenses associated with the i-Deal system and NetRoadshow not to exceed $3,000; the costs of all mailing and printing of the Offering documents (including the transaction documents, any Blue Sky Surveys and, if appropriate, any agreement among underwriters, selected dealers' agreement, Placement Agent's questionnaire and power of attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Placement Agent may reasonably deem necessary; the costs and expenses of the public relations firm referred; the costs of preparing, printing and delivering certificates representing such Securities; fees and expenses of the transfer agent for such Securities; stock transfer taxes, if any, payable upon the transfer of securities from the Company to the Placement Agent; the fees and expenses of the Company's accountants and the fees and expenses of the Placement Agent and the Company's legal counsel and other agents and representatives. Upon the Placement Agent's request, the Company shall provide funds to pay all such fees, expenses and disbursements. For the sake of clarity, it is understood and agreed that (i) the Company shall be responsible for the Placement Agent's legal fees, costs and expenses in connection with the Offering irrespective of whether the Offering is consummated, and (ii) the maximum amount of legal fees, costs and expenses incurred by the Placement Agent that the Company shall be responsible for shall not exceed $65,000 in the event of a Closing, and shall not exceed $15,000 in the event that there is not a Closing.

Section 7. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless the Placement Agent, its affiliates and each person controlling the Placement Agent (within the meaning of Section 15 of the Securities Act), and the directors, officers, agents and employees of the Placement Agent, its affiliates and each such controlling person (the Placement Agent, and each such entity or person.

an "Indemnified Person") from and against any losses, claims, damages, judgments, assessments, costs and other liabilities (collectively, the "Liabilities"), and shall reimburse each Indemnified Person for all fees and expenses (including the reasonable fees and expenses of one counsel for all Indemnified Persons, except as otherwise expressly provided herein) (collectively, the "Expenses") as they are incurred by an Indemnified Person in investigating, preparing, pursuing or defending any actions, whether or not any Indemnified Person is a party thereto, (i) caused by, or arising out of or in connection with, any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Incorporated Document, or any Prospectus or by any omission or alleged omission to state therein a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (other than untrue statements or alleged untrue statements in, or omissions or alleged omissions from, information relating to an Indemnified Person furnished in writing by or on behalf of such Indemnified Person expressly for use in the Incorporated Documents) or (ii) otherwise arising out of or in connection with advice or services rendered or to be rendered by any Indemnified Person pursuant to this Agreement, the transactions contemplated thereby or any Indemnified Person's actions or inactions in connection with any such advice, services or transactions; provided, however, that, in the case of clause (ii) only, the Company shall not be responsible for any Liabilities or Expenses of any Indemnified Person that are finally judicially determined to have resulted solely from such Indemnified Person's (x) gross negligence or willful misconduct in connection with any of the advice, actions, inactions or services referred to above or (y) use of any offering materials or information concerning the Company in connection with the offer or sale of the Securities in the Offering which were not authorized for such use by the Company and which use constitutes gross negligence or willful misconduct. The Company also agrees to reimburse each Indemnified Person for all Expenses as they are incurred in connection with enforcing such Indemnified Person's rights under this Agreement.

(b) Upon receipt by an Indemnified Person of actual notice of an action against such Indemnified Person with respect to which indemnity may be sought under this Agreement, such Indemnified Person shall promptly notify the Company in writing; provided that failure by any Indemnified Person so to notify the Company shall not relieve the Company from any liability which the Company may have on account of this indemnity or otherwise to such Indemnified Person, except to the extent the Company shall have been prejudiced by such failure. The Company shall, if requested by the Placement Agent, have the right to assume the defense of any such action including the employment of counsel reasonably satisfactory to the Placement Agent, which counsel may also be counsel to the Company. Any Indemnified Person shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company has failed promptly to assume the defense and employ counsel or (ii) the named parties to any such action (including any impeded parties) include such Indemnified Person and the Company, and such Indemnified Person shall have been advised in the reasonable opinion of counsel that there is an actual conflict of interest that prevents the counsel selected by the Company from representing both the Company (or another client of such counsel) and any Indemnified Person; provided that the Company shall not in such event be responsible hereunder for the fees and expenses of more than one firm of separate counsel for all Indemnified Persons in connection with any action or related actions, in addition to any local counsel. The Company shall not be liable for any settlement of any action effected without its written consent (which shall not be unreasonably withheld). In addition, the Company shall not, without the prior written consent of the Placement Agent (which shall not be unreasonably withheld), settle, compromise or consent to the entry of any judgment in or otherwise seek to terminate any pending or threatened action in respect of which indemnification or contribution may be sought hereunder (whether or not such Indemnified Person is a party thereto) unless such settlement, compromise,

consent or termination includes an unconditional release of each Indemnified Person from all Liabilities arising out of such action for which indemnification or contribution may be sought hereunder. The indemnification required hereby shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as such expense, loss, damage or liability is incurred and is due and payable.

(c) In the event that the foregoing indemnity is unavailable to an Indemnified Person other than in accordance with this Agreement, the Company shall contribute to the Liabilities and Expenses paid or payable by such Indemnified Person in such proportion as is appropriate to reflect (i) the relative benefits to the Company, on the one hand, and to the Placement Agent and any other Indemnified Person, on the other hand, of the matters contemplated by this Agreement or (ii) if the allocation provided by the immediately preceding clause is not permitted by applicable law, not only such relative benefits but also the relative fault of the Company, on the one hand, and the Placement Agent and any other Indemnified Person, on the other hand, in connection with the matters as to which such Liabilities or Expenses relate, as well as any other relevant equitable considerations; provided that in no event shall the Company contribute less than the amount necessary to ensure that all Indemnified Persons, in the aggregate, are not liable for any Liabilities and Expenses in excess of the amount of fees actually received by the Placement Agent pursuant to this Agreement. For purposes of this paragraph, the relative benefits to the Company, on the one hand, and to the Placement Agent on the other hand, of the matters contemplated by this Agreement shall be deemed to be in the same proportion as (a) the total value paid or contemplated to be paid to or received or contemplated to be received by the Company in the transaction or transactions that are within the scope of this Agreement, whether or not any such transaction is consummated, bears to (b) the fees paid to the Placement Agent under this Agreement. Notwithstanding the above, no person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the Securities Act, as amended, shall be entitled to contribution from a party who was not guilty of fraudulent misrepresentation.

(d) The Company also agrees that no Indemnified Person shall have any liability (whether direct or indirect, in contract or tort or otherwise) to the Company for or in connection with advice or services rendered or to be rendered by any Indemnified Person pursuant to this Agreement, the transactions contemplated thereby or any Indemnified Person's actions or inactions in connection with any such advice, services or transactions except for Liabilities (and related Expenses) of the Company that are finally judicially determined to have resulted solely from such Indemnified Person's gross negligence or willful misconduct in connection with any such advice, actions, inactions or services.

(e) The reimbursement, indemnity and contribution obligations of the Company set forth herein shall apply to any modification of this Agreement and shall remain in full force and effect regardless of any termination of, or the completion of any Indemnified Person's services under or in connection with, this Agreement.

Section 8. Representations and Indemnities to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company or any person controlling the Company, of its officers, and of the Placement Agent set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent, the Company, or any of its or their partners, officers or directors or any controlling person, as the case may be, and will survive delivery of and payment for the Securities sold hereunder and any termination of this Agreement. A successor to a Placement Agent, or to the Company, its directors or officers or any person controlling the Company, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Agreement.

Section 9. Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered, e-mailed or telecopied and confirmed to the parties hereto as follows:

If to the Placement Agent to the address set forth above, attention: James Siegal, email: jsiegel@maximgrp.com

With a copy to:

Ellenoff Grossman & Schole LLP
1345 Avenue of the Americas, 11th Floor
New York, New York 10105
E-mail: mbernstein@egsllp.com
Attention: Matthew Bernstein

If to the Company:

HCW Biologics Inc.
2929 N Commerce Parkway
Miramar, FL 33025
E-mail: RebeccaByam@hcwbiologics.com
Attention: Rebecca Byam, Chief Financial Officer

With a mandatory copy to (which shall not constitute notice):

Clark Hill PLC
130 E. Randolph St., Ste. 3900
Chicago, IL 60601
E-mail: jgroth@ClarkHill.com
Attention: Jim Groth

Any party hereto may change the address for receipt of communications by giving written notice to the others.

Section 10. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the employees, officers and directors and controlling persons referred to in Section 7 hereof, and to their respective successors, and personal representative, and no other person will have any right or obligation hereunder.

Section 11. Partial Unenforceability. The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

Section 12. Governing Law. This Agreement will be governed by, and construed in accordance with, the laws of the State of New York applicable to agreements made and to be performed entirely in such State, without regard to the conflicts of laws principles thereof. This Agreement may not be assigned by either party without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns. Any right to trial by jury with respect to any dispute arising under this Agreement or any transaction or conduct in connection herewith is waived. Any dispute arising under this Agreement may be brought into the courts of the State of New York or into the Federal Court located in New York, New York and, by execution and delivery of this Agreement, each party hereto hereby accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of aforesaid courts. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by delivering a copy thereof via 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. Each party hereto agrees that a final judgment in any such action, proceeding or counterclaim brought in any such court shall be conclusive and binding upon such party and may be enforced in any other courts to the jurisdiction of which such party is or may be subject, by suit upon such judgment. If either party to this Agreement shall commence an action or proceeding to enforce any provisions of a Transaction Document, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorney's fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

Section 13. General Provisions.

(a) This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. Notwithstanding anything herein to the contrary, the Engagement Agreement, dated [_____], 2026 ("Engagement Agreement"), between the Company and the Placement Agent shall continue to be effective and the terms therein shall continue to survive and be enforceable by the Placement Agent and the Company in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail, and provided further that the fees and costs payable by the Company to the Placement Agent in connection with the Offering are solely those set forth in this Agreement. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

(b) The Company acknowledges that in connection with the offering of the Securities: (i) the Placement Agent's responsibility to the Company is solely contractual and commercial in nature, (ii) the Placement Agent has acted at arms' length, are not agents of, and owe no fiduciary duties to the Company or any other person, (iii) the Placement Agent owes the Company only those duties and obligations set forth in this Agreement and (iv) the Placement Agent may have interests that differ from those of the Company. The Company waives to the fullest extent permitted by applicable law any claims it may have against the Placement Agent arising from a breach or alleged breach of fiduciary duty in connection with the offering of the Securities.

[*The remainder of this page has been intentionally left blank.*]

If the foregoing is in accordance with your understanding of our agreement, please sign below whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

HCW BIOLOGICS INC.
A Delaware corporation

By: _____
Name:
Title:

The foregoing Placement Agency Agreement is hereby confirmed and accepted as of the date first above written.

MAXIM GROUP LLC

By: _____
Name:
Title:

Exhibit 4.5

FORM OF COMMON STOCK PURCHASE WARRANT

HCW BIOLOGICS INC.

Warrant Shares: _____ Issue Date: _____

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date that the Shareholder Approval (as defined below) is obtained and deemed effective (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on the five year anniversary of the Initial Exercise Date (the "Termination Date") but not thereafter, to subscribe for and purchase from HCW Biologics Inc., a Delaware corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

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

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

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

"Board of Directors" means the board of directors of the Company.

"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; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

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

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

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

"Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-_____).

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

"Shareholder Approval" means such approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (or any successor entity) from the shareholders of the Company to permit the exercise of the Warrants.

"Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

"Trading Day" means a day on which the Common Stock is traded on a Trading Market.

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

"Transfer Agent" means Equiniti Trust Company, LLC, the current transfer agent of the Company, with a mailing address of 48 Wall Street, Floor 23, New York, New York 10005 and an email address of frank.misciagna@equiniti.com, and any successor transfer agent of the Company.

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

"Warrants" means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) one (1) Trading Day and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the

Company for cancellation as soon as reasonably practicable of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise on the Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be $[_____, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

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

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

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

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

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

d) Mechanics of Exercise.

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

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

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

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of $11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of $10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder $1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-

In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

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

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

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

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of

shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the

Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

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

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

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

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common

Stock or greater than 50% of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable

contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the VWAP immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier), (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant and the other Transaction Documents with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(d) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

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

f) Notice to Holder.

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

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange;

provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

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

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

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

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

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

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

d) Authorized Shares.

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

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

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

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this

Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

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

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at _____, Attention: _____, email address: _____, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

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

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

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

l) Amendment. Other than Section 2(e) above and this Section 5(l), which may not be amended, modified or waived, this Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

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

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

****

(Signature Page Follows)

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

HCW BIOLOGICS INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: HCW BIOLOGICS INC.

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

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

[ ] in lawful money of the United States; or

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

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

_____

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

_____

_____

_____

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____
Signature of Authorized Signatory of Investing Entity: _____
Name of Authorized Signatory: _____
Title of Authorized Signatory: _____
Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____ __, _____

Holder's Signature: _____

Holder's Address: _____

Exhibit 5.1

Clark Hill

February 17, 2026

HCW Biologics Inc.
2929 N Commerce Parkway
Miramar, Florida 33025

Re: HCW Biologics Inc.
Sale of Securities Under Form S-1 Registration (File No. 333-293396)

Ladies and Gentlemen:

We have acted as your counsel in connection with a Registration Statement on Form S-1 (as it may be amended or supplemented (the "**Registration Statement**") filed by HCW Biologics Inc., a Delaware corporation (the "**Company**") with the U.S. Securities and Exchange Commission (the "**SEC**") under the Securities Act of 1933, as amended (the "**Securities Act**") relating to the offering and sale by the Company of up to $5,000,000.00 of Units each consisting of (a)(i) one (1) share (the "**Common Shares**") of the Company's common stock, $0.0001 par value per share (the "**Common Stock**") or (ii) one (1) Pre-Funded Warrant to purchase one (1) share of Common Stock (the "**Pre-Funded Warrants**" and each share of Common Stock underlying a Pre-Funded Warrant, a "**PFW Share**"); and (b) one (1) common stock purchase warrant (the "**Warrants**" and each share of Common Stock underlying a Warrant, a "**Warrant Share**") to purchase up to an aggregate of $5,000,000.00 of shares of Common Stock.

We have examined and relied upon (i) the Registration Statement, (ii) the Prospectus included as a part of the Registration Statement, (iii) the Company's certificate of incorporation and bylaws, each as amended and restated through the date hereof, (c) certain resolutions of the Board relating to the Registration Statement or the issuance, sale and registration of the Common Shares and the Warrants and (iv) the originals or copies, certified or otherwise, identified to our satisfaction, of such records of the Company, certificates of public officials regarding the Company, officers of the Company, and such matters of law and regulation and such other documents as we have deemed relevant and necessary for the basis of our opinions hereinafter expressed.

In such examination, we have assumed the following: (i) the authenticity of documents submitted to us as originals and the conformity to authentic original documents, agreements and instruments of all documents, agreements and instruments submitted to us as facsimiles or PDFs, or as certified, conformed or reproduced copies, and the genuineness of all signatures; (ii) the legal capacity and competency of all signatories and the genuineness and validity of all signatures on all documents, (iii) the conformity to the originals of all documents submitted to us as copies and the authenticity of the originals of such copies; (iv) all documents filed as exhibits to the Registration Statement that have not been executed will conform to the forms thereof; and (v) the truth, accuracy and completeness of the information, factual matters, representations, warranties and covenants contained in the records, agreements (including the Transaction Agreements), documents, instruments and certificates we have reviewed. In making our examination of documents executed or

to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.

We have further assumed (without independent verification) that:

A. All persons acting on behalf of the parties in connection with the transactions referenced or relevant herein, were duly authorized so to act; and

B. The Registration Statement and any other post-effective amendments or supplements thereto (other than the Prospectus and the financial statements included therein, as to which no opinion need be rendered) each as of their respective dates, complied, as to form in all material respects with the requirements of the Securities Act and the rules and regulations thereunder.

Based upon the foregoing and in reliance thereon, and subject to the limitations, qualifications, exceptions and assumptions set forth herein, we are of the opinion that:

1. The Common Shares when issued and paid for as described in the Registration Statement, will be validly issued, fully paid and nonassessable;

2. The Pre-Funded Warrants and Warrants, when duly executed by the Company and delivered to the purchasers thereof against payment therefor as described in the Registration Statement, will be validly issued, fully paid and nonassessable; and

3. The PFW Shares to be issued upon the proper exercise of the Pre-Funded Warrants have been duly authorized, and when the Pre-Funded Warrants have been properly exercised in accordance with the terms thereof (including without limitation payment in full of applicable consideration), such shares will be validly issued, fully paid and nonassessable.

4. The Warrant Shares to be issued upon the proper exercise of the Warrants have been duly authorized, and when the Warrants have been properly exercised in accordance with the terms thereof (including without limitation payment in full of applicable consideration), such shares will be validly issued, fully paid and nonassessable.

We also consent to the reference to our firm under the heading “Legal Matters” in the Registration Statement.

Our opinion herein is limited to the U.S. Federal Laws and the General Corporation Law of the State of Delaware and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions. The opinion which we render herein is as of the date hereof, and we assume no obligation to revise or supplement this opinion should such laws be changed by legislative or regulatory action, judicial decision or otherwise.

Very truly yours,

/s/ Clark Hill PLC

CLARK HILL PLC

FORM OF SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (this "Agreement") is dated as of [ ], 2026, between HCW Biologics Inc., a Delaware corporation (the "Company"), and each purchaser identified on the signature pages hereto (each, including its successors and assigns, a "Purchaser" and collectively the "Purchasers").

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to an effective registration statement under the Securities Act (as defined below), the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agree as follows:

ARTICLE I.
DEFINITIONS

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

"Acquiring Person" shall have the meaning ascribed to such term in Section 4.5.

"Action" shall have the meaning ascribed to such term in Section 3.1(j).

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

"Board of Directors" means the board of directors of the Company.

"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; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to "stay at home", "shelter-in-place", "non-essential employee" or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

"Closing" means the closing of the purchase and sale of the Securities pursuant to Section 2.1.

"Closing Date" means the Trading Day on which all of the Transaction Documents have been executed and delivered by the applicable parties thereto, and all conditions precedent to (i) the Purchasers' obligations to pay the Subscription Amount and (ii) the Company's obligations to deliver the Securities, in each case, have been satisfied or waived, but in no event later than the first (1st) Trading Day following the date hereof (or the second (2nd) Trading Day following the date hereof if this Agreement is signed on a day that is not a Trading Day or after 4:00 p.m) (New York City time) and before midnight (New York City time) on a Trading Day).

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means the common stock of the Company, par value $0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

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

"Common Warrants" means, collectively, the Common Stock purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which Common Warrants shall be exercisable upon Shareholder Approval and have a term of exercise equal to five years from the initial exercise date, in the form of Exhibit A attached hereto.

"Common Warrant Shares" means the shares of Common Stock issuable upon exercise of the Common Warrants.

"Company Counsel" means Clark Hill PLC, with offices located at 130 E. Randolph, Suite 3900, Chicago, Il 60601.

"Disclosure Schedules" means the Disclosure Schedules of the Company delivered concurrently herewith.

"Disclosure Time" means, (i) if this Agreement is signed on a day that is not a Trading Day or after 9:00 a.m. (New York City time) and before midnight (New York City time) on any Trading Day, 9:01 a.m. (New York City time) on the Trading Day immediately following the date hereof, unless otherwise instructed as to an earlier time by the Placement Agent, and (ii) if this Agreement is signed between midnight (New York City time) and 9:00 a.m. (New York City time) on any Trading Day, no later than 9:01 a.m. (New York City time) on the date hereof, unless otherwise instructed as to an earlier time by the Placement Agent.

"EGS" means Ellenoff Grossman & Schole LLP, with offices located at 1345 Avenue of the Americas, New York, New York 10105-0302.

"Evaluation Date" shall have the meaning ascribed to such term in Section 3.1(s).

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

"Exempt Issuance" means the issuance of (a) shares of Common Stock or options to employees, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose, by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors

established for such purpose for services rendered to the Company, (b) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities, and (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.11(a) herein, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

"FCPA" means the Foreign Corrupt Practices Act of 1977, as amended.

"FDA" shall have the meaning ascribed to such term in Section 3.1(hh).

"FDCA" shall have the meaning ascribed to such term in Section 3.1(hh).

"GAAP" shall have the meaning ascribed to such term in Section 3.1(h).

"Indebtedness" shall have the meaning ascribed to such term in Section 3.1(aa).

"Intellectual Property Rights" shall have the meaning ascribed to such term in Section 3.1(p).

"Liens" means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

"Lock-Up Agreement" means the Lock-Up Agreement, dated as of the date hereof, by and among the Company and the directors, officers, and 5% stockholders of the Company, in the form of Exhibit C_ attached hereto.

"Material Adverse Effect" shall have the meaning assigned to such term in Section 3.1(b).

"Material Permits" shall have the meaning ascribed to such term in Section 3.1(n).

"Per Share Purchase Price" equals $[ ], subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement, provided that the purchase price per Pre-Funded Warrant shall be the Per Share Purchase Price minus $0.0001.

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

"Pharmaceutical Product" shall have the meaning ascribed to such term in Section 3.1(hh).

"Placement Agent" means Maxim Group LLC.

"Pre-Funded Warrant" means, collectively, the Pre-Funded Common Stock purchase warrants delivered to the Purchasers at the Closing in accordance with Section 2.2(a) hereof, which Pre-Funded Warrants shall be exercisable immediately and shall expire when exercised in full, in the form of Exhibit B attached hereto.

"Pre-Funded Warrant Shares" means the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants.

"Proceeding" means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened.

"Prospectus" means the final base prospectus filed for the Registration Statement.

"Prospectus Supplement" means the supplement to the Prospectus complying with Rule 424(b) of the Securities Act that is filed with the Commission and delivered by the Company to each Purchaser at the Closing.

"Purchaser Party" shall have the meaning ascribed to such term in Section 4.8.

"Registration Statement" means the effective registration statement with Commission File No. 333-[ ] which registers the sale of the Shares, the Warrants and the Warrant Shares to the Purchasers, and includes any 462(b) Registration Statement.

"Required Approvals" shall have the meaning ascribed to such term in Section 3.1(e).

"Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Rule 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Rule 462(b) Registration Statement" means any registration statement prepared by the Company registering additional Securities, which was filed with the Commission on or prior to the date hereof and became automatically effective pursuant to Rule 462(b) promulgated by the Commission pursuant to the Securities Act.

"SEC Reports" shall have the meaning ascribed to such term in Section 3.1(h).

"Securities" means the Shares, the Warrants and the Warrant Shares.

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

"Shares" means the shares of Common Stock issued or issuable to each Purchaser pursuant to this Agreement.

"Shareholder Approval" means such approval as may be required by the applicable rules and regulations of the Nasdaq Capital Market (or any successor entity) from the shareholder of the Company to permit the exercise of the Common Warrants.

"Short Sales" means all "short sales" as defined in Rule 200 of Regulation SHO under the Exchange Act (but shall not be deemed to include locating and/or borrowing shares of Common Stock).

"Subscription Amount" means, as to each Purchaser, the aggregate amount to be paid for Shares, Warrants and Pre-Funded Warrants purchased hereunder as specified below such Purchaser's name on the signature page of this Agreement and next to the heading "Subscription Amount," in United States dollars and in immediately available funds (minus, if applicable, a Purchaser's aggregate exercise price of the Pre-Funded Warrants, which amounts shall be paid as and when such Pre-Funded Warrants are exercised).

"Subsidiary" means any subsidiary of the Company as set forth on Schedule 3.1(a), and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

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

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

"Transaction Documents" means this Agreement, the Pre-Funded Warrants, the Common Warrants, the Lock-Up Agreement, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

"Transfer Agent" means Equiniti Trust Company, LLC, the current transfer agent of the Company, with a mailing address of 48 Wall Street, Floor 23, New York, New York 10005 and an email address of frank.misciagna@equiniti.com, and any successor transfer agent of the Company.

"Variable Rate Transaction" shall have the meaning ascribed to such term in Section 4.11(b).

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

"Warrants" means, collectively, the Common Warrants and Pre-Funded Warrants.

"Warrant Shares" means the shares of Common Stock issuable upon exercise of the Warrants.

ARTICLE II.

PURCHASE AND SALE

2.1 Closing. On the Closing Date, upon the terms and subject to the conditions set forth herein, the Company agrees to sell, and the Purchasers, severally and not jointly, agree to purchase, up to an aggregate of $[ ] of Shares and Common Warrants; provided, however, that, to the extent that a Purchaser determines, in its sole discretion, that such Purchaser (together with such Purchaser's Affiliates, and any Person acting as a group together with such Purchaser or any of such Purchaser's Affiliates) would beneficially own in excess of the Beneficial Ownership Limitation, or as such Purchaser may otherwise choose, in lieu of purchasing Shares such Purchaser may elect to purchase Pre-Funded Warrants in lieu of Shares in such manner to result in the same aggregate purchase price being paid by such Purchaser to the Company. The "Beneficial Ownership Limitation" shall be 4.99% (or, at the election of the Purchaser at Closing, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of the Securities on the Closing Date. Each Purchaser's Subscription Amount as set forth on the signature page hereto executed by such Purchaser shall be made available for "Delivery Versus Payment" settlement with the Company or its designee. The Company shall deliver to each Purchaser its respective Shares, Common Warrants and Pre-Funded Warrants as determined pursuant to Section 2.2(a), and the Company and each Purchaser shall deliver the other items set forth in Section 2.2 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall take place remotely by electronic transfer of the

Closing documentation. Notwithstanding anything herein to the contrary, if at any time on or after the time of execution of this Agreement by the Company and an applicable Purchaser, through, and including the time immediately prior to the Closing (the "Pre-Settlement Period"), such Purchaser sells to any Person all, or any portion, of the Shares to be issued hereunder to such Purchaser at the Closing (collectively, the "Pre-Settlement Shares"), such Purchaser shall, automatically hereunder (without any additional required actions by such Purchaser or the Company), be deemed to be unconditionally bound to purchase, such Pre-Settlement Shares at the Closing; provided, that the Company shall not be required to deliver any Pre-Settlement Shares to such Purchaser prior to the Company's receipt of the purchase price of such Pre-Settlement Shares hereunder; and provided further that the Company hereby acknowledges and agrees that the forgoing shall not constitute a representation or covenant by such Purchaser as to whether or not during the Pre-Settlement Period such Purchaser shall sell any shares of Common Stock to any Person and that any such decision to sell any shares of Common Stock by such Purchaser shall solely be made at the time such Purchaser elects to effect any such sale, if any. Unless otherwise directed by the Placement Agent, settlement of the Shares shall occur via "Delivery Versus Payment" ("DVP") (i.e., on the Closing Date, the Company shall issue the Shares registered in the Purchasers' names and addresses and released by the Transfer Agent directly to the account(s) at the Placement Agent identified by each Purchaser; upon receipt of such Shares, the Placement Agent shall promptly electronically deliver such Shares to the applicable Purchaser, and payment therefor shall be made by the Placement Agent (or its clearing firm) by wire transfer to the Company). Notwithstanding anything to the contrary herein and a Purchaser's Subscription Amount set forth on the signature pages attached hereto, the number of Shares purchased by a Purchaser (and its Affiliates) hereunder shall not, when aggregated with all other shares of Common Stock owned by such Purchaser (and its Affiliates) at such time, result in such Purchaser beneficially owning (as determined in accordance with Section 13(d) of the Exchange Act) in excess of 9.9% of the then issued and outstanding Common Stock outstanding at the Closing (the "Beneficial Ownership Maximum"), and such Purchaser's Subscription Amount, to the extent it would otherwise exceed the Beneficial Ownership Maximum immediately prior to the Closing, shall be conditioned upon the issuance of Shares at the Closing to the other Purchasers signatory hereto. To the extent that a Purchaser's beneficial ownership of the Shares would otherwise be deemed to exceed the Beneficial Ownership Maximum, such Purchaser's Subscription Amount shall automatically be reduced as necessary in order to comply with this paragraph. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise (as defined in the Pre-Funded Warrants) delivered on or prior to 12:00 p.m. (New York City time) on the Closing Date, which may be delivered at any time after the time of execution of this Agreement, the Company agrees to deliver the Pre-Funded Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Closing Date and the Closing Date shall be the Warrant Share Delivery Date (as defined in the Pre-Funded Warrants) for purposes hereunder.

2.2 Deliveries.

(a) On or prior to the Closing Date (except as indicated below), the Company shall deliver or cause to be delivered to each Purchaser the following:

(i) this Agreement duly executed by the Company;

(ii) a legal opinion of Company Counsel, including, without limitation, a negative assurance paragraph, directed to the Placement Agent and the Purchasers, in a form and substance reasonably acceptable to the Placement Agent and the Purchasers;

(iii) subject to Section 2.1, the Company shall have provided each Purchaser with the Company's wire instructions, on Company letterhead and executed by the Chief Executive Officer or Chief Financial Officer;

(iv) subject to Section 2.1, a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver on an expedited basis via The Depository Trust Company Deposit or Withdrawal at Custodian system ("DWAC") Shares equal to such Purchaser's Subscription Amount divided by the Per Share Purchase Price, registered in the name of such Purchaser;

(v) a Common Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to 100% of such Purchaser's Shares and Pre-Funded Warrant Shares, with an exercise price equal to $[•], subject to adjustment therein;

(vi) for each Purchaser of Pre-Funded Warrants pursuant to Section 2.1, a Pre-Funded Warrant registered in the name of such Purchaser to purchase up to a number of shares of Common Stock equal to the portion of such Purchaser's Subscription Amount applicable to Pre-Funded Warrant divided by the Per Share Purchase Price minus $0.0001, with an exercise price equal to $0.0001, subject to adjustment therein;

(vii) on the date hereof, the duly executed Lock-Up Agreements; and

(viii) the Prospectus and Prospectus Supplement (which may be delivered in accordance with Rule 172 under the Securities Act).

(b) On or prior to the Closing Date, each Purchaser shall deliver or cause to be delivered to the Company the following:

(i) this Agreement duly executed by such Purchaser; and

(ii) such Purchaser's Subscription Amount (less the aggregate exercise price of the Pre-Funded Warrants issuable to such Purchaser hereunder, if applicable), which shall be made available for "Delivery Versus Payment" settlement with the Company or its designee.

2.3 Closing Conditions.

(a) The obligations of the Company hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) on the Closing Date of the representations and warranties of the Purchasers contained herein (unless as of a specific date therein in which case they shall be accurate in all material respects (or, to the extent representations or warranties are qualified by materiality, in all respects) as of such date);

(ii) all obligations, covenants and agreements of each Purchaser required to be performed at or prior to the Closing Date shall have been performed; and

(iii) the delivery by each Purchaser of the items set forth in Section 2.2(b) of this Agreement.

(b) The respective obligations of the Purchasers hereunder in connection with the Closing are subject to the following conditions being met:

(i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) when made and on the Closing Date of the representations and warranties of the Company contained herein (unless as of a specific date therein in which case they shall be accurate in all material respects or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) as of such date);

(ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the Closing Date shall have been performed;

(iii) the delivery by the Company of the items set forth in Section 2.2(a) of this Agreement;

(iv) there shall have been no Material Adverse Effect with respect to the Company; and

(v) from the date hereof to the Closing Date, trading in the Common Stock shall not have been suspended by the Commission or the Company's principal Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of such Purchaser, makes it impracticable or inadvisable to purchase the Securities at the Closing.

ARTICLE III.

REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of the Company. Except as set forth in the Disclosure Schedules, which Disclosure Schedules shall be deemed a part hereof and shall qualify any representation made herein, the Company hereby makes the following representations and warranties to each Purchaser:

(a) Subsidiaries. The Company has no direct or indirect subsidiaries. If the Company has no subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "Material Adverse Effect") and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

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

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

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filings required pursuant to Section 4.4 of this Agreement, (ii) the filing with the Commission of the Prospectus Supplement, (iii) application(s) to each applicable Trading Market for the listing of the Shares and Warrant Shares for trading thereon in the time and manner required thereby, (iv) Shareholder Approval and (v) the filing of Form D with the Commission and such filings as are required to be made under applicable state securities laws (collectively, the "Required Approvals").

(f) Issuance of the Securities; Registration. The Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants. The Company has prepared and filed the Registration Statement in conformity with the requirements of the Securities Act, which became effective on [ ], 2026 (the "Effective Date"), including the Prospectus, and such amendments and supplements thereto as may have been required to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Prospectus has been

issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the rules and regulations of the Commission, shall file the Prospectus with the Commission pursuant to Rule 424(b). At the time the Registration Statement and any amendments thereto became effective, at the date of this Agreement and at the Closing Date, the Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Prospectus and any amendments or supplements thereto, at the time the Prospectus or any amendment or supplement thereto was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(g) Capitalization. The capitalization of the Company as of the date hereof is as set forth on Schedule 3.1(g), which Schedule 3.1(g) shall also include, to the Company's knowledge, the number of shares of Common Stock owned beneficially, and of record, by Affiliates of the Company as of the date hereof. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act and except for the issuance of securities and the amendment of existing warrants and inducement to exercise such warrants pursuant to that certain warrant inducement transaction disclosed on Schedule 3.1(g). No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Securities and as set forth on Schedule 3.1(g), there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock or the capital stock of any Subsidiary, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents or capital stock of any Subsidiary. The issuance and sale of the Securities will not obligate the Company or any Subsidiary to issue shares of Common Stock or other securities to any Person (other than the Purchasers). Except as disclosed on Schedule 3.1(g), there are no outstanding securities or instruments of the Company or any Subsidiary with any provision that adjusts the exercise, conversion, exchange or reset price of such security or instrument upon an issuance of securities by the Company or any Subsidiary. There are no outstanding securities or instruments of the Company or any Subsidiary that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to redeem a security of the Company or such

Subsidiary. The Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Shareholder Approval further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(h) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus and the Prospectus Supplement, being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(i) Material Changes; Undisclosed Events, Liabilities or Developments. Except as disclosed in the Registration Statement, since the date of the latest audited financial statements included within the SEC Reports, except as set forth on Schedule 3.1(i), (i) there has been no material event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial

statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Securities contemplated by this Agreement or as set forth on Schedule 3.1(i), no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is made.

(j) Litigation. Except as set forth on Schedule 3.1(j), there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action"). None of the Actions set forth on Schedule 3.1(j), (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(k) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability

with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(l) Compliance. Except as set forth on Schedule 3.1(l), neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not have or reasonably be expected to result in a Material Adverse Effect.

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

(n) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect ("Material Permits"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit.

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

(p) Intellectual Property. The Company and the Subsidiaries have, have rights to use, or can acquire rights to use all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as now conducted or as described in the SEC Reports and which the failure to so have could have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). None of, and neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as could not have or reasonably be expected to not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(q) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage at least equal to the aggregate Subscription Amount. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(r) Transactions With Affiliates and Employees. Except as set forth on Schedule 3.1(r), none of the officers or directors of the Company or any Subsidiary and, to the knowledge of the Company, none of the employees of the Company or any

Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of $120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(s) Sarbanes-Oxley; Internal Accounting Controls. The Company and the Subsidiaries are in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002, as amended, that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. Except as set forth in Schedule 3.1(s), the Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company's certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed periodic report under the Exchange Act (such date, the "Evaluation Date"). The Company presented in its most recently filed periodic report under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) of the Company and its Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries.

(t) Certain Fees. Except for fees payable by the Company to the Placement Agent, no brokerage or finder's fees or commissions are or will be payable by the Company or any Subsidiary to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. The Purchasers shall have no obligation

with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by the Transaction Documents.

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

(v) Registration Rights. Other than the Purchasers, except as set forth in Schedule 3.1(v), no Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(w) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as set forth in Schedule 3.1(w), the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The Common Stock is currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

(x) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's certificate of incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities.

(y) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that neither it nor any other Person acting on its behalf has provided any of the Purchasers or their agents or counsel with any information that it believes constitutes material, non-public information which is not otherwise disclosed or incorporated in the Prospectus

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

(z) No Integrated Offering. Assuming the accuracy of the Purchasers' representations and warranties set forth in Section 3.2, neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(aa) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Securities hereunder, the Company believes that (i) the fair saleable value of the Company's assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. Schedule 3.1(aa) sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. For the purposes of this Agreement, "Indebtedness" means (x) any liabilities for borrowed money or amounts owed in excess of $50,000 (other than

trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of $50,000 due under leases required to be capitalized in accordance with GAAP. Except as set forth in Schedule 3.1(aa), neither the Company nor any Subsidiary is in default with respect to any Indebtedness.

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

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

(dd) Accountants. The Company's accounting firm is set forth on Schedule 3.1(dd) of the Disclosure Schedules. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ending December 31, 2025.

(ee) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated thereby. The Company further acknowledges that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions

contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives.

(ff) Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(f) and 4.13 hereof), it is understood and acknowledged by the Company that: (i) none of the Purchasers has been asked by the Company to agree, nor has any Purchaser agreed, to desist from purchasing or selling, long and/or short, securities of the Company, or "derivative" securities based on securities issued by the Company or to hold the Securities for any specified term; (ii) past or future open market or other transactions by any Purchaser, specifically including, without limitation, Short Sales or "derivative" transactions, before or after the closing of this or future private placement transactions, may negatively impact the market price of the Company's publicly-traded securities; (iii) any Purchaser, and counter-parties in "derivative" transactions to which any such Purchaser is a party, directly or indirectly, presently may have a "short" position in the Common Stock, and (iv) each Purchaser shall not be deemed to have any affiliation with or control over any arm's length counter-party in any "derivative" transaction. The Company further understands and acknowledges that (y) one or more Purchasers may engage in hedging activities at various times during the period that the Securities are outstanding, including, without limitation, during the periods that the value of the Warrant Shares deliverable with respect to Securities are being determined, and (z) such hedging activities (if any) could reduce the value of the existing stockholders' equity interests in the Company at and after the time that the hedging activities are being conducted. The Company acknowledges that such aforementioned hedging activities do not constitute a breach of any of the Transaction Documents.

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

(hh) FDA. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder ("FDCA") that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a "Pharmaceutical Product"), such Pharmaceutical Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use,

premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Pharmaceutical Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Pharmaceutical Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company nor has the FDA expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company.

(ii) Stock Option Plans. Each stock option granted by the Company under the Company's stock option plan was granted (i) in accordance with the terms of the Company's stock option plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No stock option granted under the Company's stock option plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects.

(jj) Cybersecurity. (i)(x) To the Company's knowledge, there has been no material security breach or other material compromise of or relating to any of the Company's or any Subsidiary's information technology and computer systems, networks, hardware, software, data (including the data of its respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of it), equipment or technology (collectively, "IT Systems and Data") and (y) the Company and the Subsidiaries have not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any material security breach or other material compromise to its IT Systems and Data; (ii) the Company and the Subsidiaries

are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, individually or in the aggregate, have a Material Adverse Effect; (iii) the Company and the Subsidiaries have implemented and maintained commercially reasonable safeguards to maintain and protect its material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and Data; and (iv) the Company and the Subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practices.

(kk) Compliance with Data Privacy Laws. (i) The Company and the Subsidiaries are, and at all times during the last three (3) years were, in compliance with all applicable state, federal and foreign data privacy and security laws and regulations, including, without limitation, the European Union General Data Protection Regulation ("GDPR") (EU 2016/679) (collectively, "Privacy Laws"); (ii) the Company and the Subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling and analysis of Personal Data (as defined below) (the "Policies"); (iii) the Company provides accurate notice of its applicable Policies to its customers, employees, third party vendors and representatives as required by the Privacy Laws; and (iv) applicable Policies provide accurate and sufficient notice of the Company's then-current privacy practices relating to its subject matter, and do not contain any material omissions of the Company's then-current privacy practices, as required by Privacy Laws. "Personal Data" means (i) a natural person's name, street address, telephone number, email address, photograph, social security number, bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "personal data" as defined by GDPR; and (iv) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any identifiable data related to an identified person's health or sexual orientation. (i) None of such disclosures made or contained in any of the Policies have been inaccurate, misleading, or deceptive in violation of any Privacy Laws and (ii) the execution, delivery and performance of the Transaction Documents will not result in a breach of any Privacy Laws or Policies. Neither the Company nor the Subsidiaries (i) to the knowledge of the Company, has received written notice of any actual or potential liability of the Company or the Subsidiaries under, or actual or potential violation by the Company or the Subsidiaries of, any of the Privacy Laws; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any regulatory request or demand pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement by or with any court or arbitrator or governmental or regulatory authority that imposed any obligation or liability under any Privacy Law.

(ll) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC").

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

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

(oo) Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "Money Laundering Laws"), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company or any Subsidiary, threatened.

3.2 Representations and Warranties of the Purchasers. Each Purchaser, for itself and for no other Purchaser, hereby represents and warrants as of the date hereof and as of the Closing Date to the Company as follows (unless as of a specific date therein, in which case they shall be accurate as of such date):

(a) Organization; Authority. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by such Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general

application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(b) Understandings or Arrangements. Such Purchaser is acquiring the Securities as principal for its own account and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Securities (this representation and warranty not limiting such Purchaser's right to sell the Securities pursuant to the Registration Statement or otherwise in compliance with applicable federal and state securities laws). Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business.

(c) Purchaser Status. At the time such Purchaser was offered the Securities, it was, and as of the date hereof it is, and on each date on which it exercises any Warrants, it will be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7), (a)(8), (a)(9), (a)(12) or (a)(13) under the Securities Act.

(d) Experience of Such Purchaser. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

(e) Access to Information. Such Purchaser acknowledges that it has had the opportunity to review the Transaction Documents (including all exhibits and schedules thereto) and the SEC Reports and has been afforded, (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Securities and the merits and risks of investing in the Securities; (ii) access to information about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Such Purchaser acknowledges and agrees that neither the Placement Agent nor any Affiliate of the Placement Agent has provided such Purchaser with any information or advice with respect to the Securities nor is such information or advice necessary or desired. Neither the Placement Agent nor any Affiliate has made or makes any representation as to the Company or the quality of the Securities and the Placement Agent and any Affiliate may have acquired non-public information with respect to the Company which such Purchaser agrees need not be provided to it. In connection with the issuance of the Securities to such Purchaser, neither the Placement Agent nor any of its Affiliates has acted as a financial advisor or fiduciary to such Purchaser.

(f) Certain Transactions and Confidentiality. Other than consummating the transactions contemplated hereunder, such Purchaser has not, nor has any Person acting on

behalf of or pursuant to any understanding with such Purchaser, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser first received a term sheet (written or oral) from the Company or any other Person representing the Company setting forth the material pricing terms of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement or to such Purchaser's representatives, including, without limitation, its officers, directors, partners, legal and other advisors, employees, agents and Affiliates, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

The Company acknowledges and agrees that the representations contained in this Section 3.2 shall not modify, amend or affect such Purchaser's right to rely on the Company's representations and warranties contained in this Agreement or any representations and warranties contained in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transactions contemplated hereby. Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

ARTICLE IV.

OTHER AGREEMENTS OF THE PARTIES

4.1 The Shares, Warrants, and Warrant Shares shall be issued free of legends. If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the issuance or resale of the Warrant Shares or if the Warrant is exercised via cashless exercise, the Warrant Shares issued pursuant to any such exercise shall be issued free of all legends. If at any time following the date hereof the Registration Statement (or any subsequent registration statement registering the sale or resale of the Warrant Shares) is not effective or is not otherwise available for the sale or resale of the Warrant Shares, the Company shall immediately notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale or resale of the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any Purchaser to sell, any of the Warrant Shares in

compliance with applicable federal and state securities laws). The Company shall use best efforts to keep a registration statement (including the Registration Statement) registering the issuance or resale of the Warrant Shares effective during the term of the Warrants.

4.2 Furnishing of Information. Until the earlier of the time that (i) no Purchaser owns Securities or (ii) the Warrants have expired, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the Exchange Act even if the Company is not then subject to the reporting requirements of the Exchange Act.

4.3 Integration. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) or that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction.

4.4 Securities Laws Disclosure; Publicity. The Company shall (a) by the Disclosure Time, issue a press release disclosing the material terms of the transactions contemplated hereby, and (b) file a Current Report on Form 8-K, including the Transaction Documents as exhibits thereto, with the Commission within the time required by the Exchange Act. From and after the issuance of such press release, the Company represents to the Purchasers that it shall have publicly disclosed all material, non-public information delivered to any of the Purchasers by the Company or any of its Subsidiaries, or any of their respective officers, directors, employees, Affiliates or agents, including, without limitation, the Placement Agent, in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the issuance of such press release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, employees, Affiliates or agents, including, without limitation, the Placement Agent, on the one hand, and any of the Purchasers or any of their Affiliates on the other hand, shall terminate and be no further force or effect. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents with the Commission and (b) to the extent such disclosure is required by law or Trading Market regulations, in which case the Company shall provide the Purchasers with prior notice of such disclosure permitted under this clause (b) and reasonably cooperate with such Purchaser regarding such disclosure.

4.5 Shareholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Purchaser is an "Acquiring Person" under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents or under any other agreement between the Company and the Purchasers.

4.6 Non-Public Information. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, which shall be disclosed pursuant to Section 4.4, the Company covenants and agrees that neither it, nor any other Person acting on its behalf will provide any Purchaser or its agents or counsel with any information that constitutes, or the Company reasonably believes constitutes, material non-public information, unless prior thereto such Purchaser shall have consented in writing to the receipt of such information and agreed in writing with the Company to keep such information confidential. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company. To the extent that the Company, any of its Subsidiaries, or any of their respective officers, directors, agents, employees or Affiliates delivers any material, non-public information to a Purchaser without such Purchaser's consent, the Company hereby covenants and agrees that such Purchaser shall not have any duty of confidentiality to the Company, any of its Subsidiaries, or any of their respective officers, directors, employees, Affiliates or agents, including, without limitation, the Placement Agent, or a duty to the Company, any of its Subsidiaries or any of their respective officers, directors, employees, Affiliates or agents, including, without limitation, the Placement Agent, not to trade on the basis of, such material, non-public information, provided that the Purchaser shall remain subject to applicable law. To the extent that any notice provided pursuant to any Transaction Document constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously with the delivery of such notice file such notice with the Commission pursuant to a Current Report on Form 8-K. The Company understands and confirms that each Purchaser shall be relying on the foregoing covenant in effecting transactions in securities of the Company.

4.7 Use of Proceeds. Except as set forth on Schedule 4.7 attached hereto, the Company shall use the net proceeds from the sale of the Securities hereunder for working capital purposes and shall not use such proceeds: (a) for the satisfaction of any portion of the Company's debt (other than payment of trade payables in the ordinary course of the Company's business and prior practices), (b) for the redemption of any Common Stock or Common Stock Equivalents, (c) for the settlement of any outstanding litigation or (d) in violation of FCPA or OFAC regulations.

4.8 Indemnification of Purchasers. Subject to the provisions of this Section 4.8, the Company will indemnify and hold each Purchaser and its directors, officers, shareholders, members, partners, employees and agents (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title), each

Person who controls such Purchaser (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, shareholders, agents, members, partners or employees (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title) of such controlling persons (each, a "Purchaser Party") harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that any such Purchaser Party may suffer or incur as a result of or relating to (a) any breach of any of the representations, warranties, covenants or agreements made by the Company in this Agreement or in the other Transaction Documents or (b) any action instituted against the Purchaser Parties in any capacity, or any of them or their respective Affiliates, by any stockholder of the Company who is not an Affiliate of such Purchaser Party, with respect to any of the transactions contemplated by the Transaction Documents (except to the extent such action is based upon a material breach of such Purchaser Party's representations, warranties or covenants under the Transaction Documents or any agreements or understandings such Purchaser Party may have with any such stockholder or any violations by such Purchaser Party of state or federal securities laws or any conduct by such Purchaser Party which is finally judicially determined to constitute fraud, gross negligence or willful misconduct. If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and, the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of counsel a material conflict on any material issue between the position of the Company and the position of such Purchaser Party, in which case the Company shall be responsible for the reasonable fees and expenses of no more than one such separate counsel. The Company will not be liable to any Purchaser Party under this Agreement (y) for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (z) to the extent, but only to the extent that a loss, claim, damage or liability is attributable to any Purchaser Party's breach of any of the representations made by a Purchaser Party in this Agreement or the other Transaction Documents. The indemnification required by this Section 4.8 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. The indemnity agreements contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against the Company or others and any liabilities the Company may be subject to pursuant to law.

4.9 Reservation of Common Stock. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue Shares pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Warrants.

4.10 Listing of Common Stock. The Company hereby agrees to use best efforts to maintain the listing or quotation of the Common Stock on the Trading Market on which it is currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the Shares and Warrant Shares on such Trading Market and promptly secure the listing of all of the Shares and Warrant Shares on such Trading Market. The Company further agrees, if the Company applies to have the Common Stock traded on any other Trading Market, it will then include in such application all of the Shares and Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of its Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. The Company agrees to maintain the eligibility of the Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation, including, without limitation, by timely payment of fees to the Depository Trust Company or such other established clearing corporation in connection with such electronic transfer.

4.11 Subsequent Equity Sales.

(a) From the date hereof until 60 days after the Closing Date, neither the Company nor any Subsidiary shall (i) issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents or (ii) file any registration statement or any amendment or supplement thereto, other than the Prospectus Supplement or as contemplated pursuant to Section 4.17 herein, filing a registration statement on Form S-8 in connection with any employee benefit plan.

(b) From the date hereof until 60 days after the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at-the-market offering", whereby the Company may issue securities at a future determined price regardless of whether shares pursuant to such agreement have actually been issued and regardless of whether such agreement is subsequently canceled.

(c) Notwithstanding the foregoing, this Section 4.11 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

4.12 Equal Treatment of Purchasers. No consideration (including any modification of any Transaction Document) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of the Transaction Documents unless the same consideration is also offered to all of the parties to the Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended for the Company to treat the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of Securities or otherwise.

4.13 Certain Transactions and Confidentiality. Each Purchaser, severally and not jointly with the other Purchasers, covenants that neither it nor any Affiliate acting on its behalf or pursuant to any understanding with it will execute any purchases or sales, including Short Sales of any of the Company's securities during the period commencing with the execution of this Agreement and ending at such time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company pursuant to the initial press release as described in Section 4.4, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in the Disclosure Schedules (other than as disclosed to its legal and other representatives). Notwithstanding the foregoing and notwithstanding anything contained in this Agreement to the contrary, the Company expressly acknowledges and agrees that (i) no Purchaser makes any representation, warranty or covenant hereby that it will not engage in effecting transactions in any securities of the Company after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4, (ii) no Purchaser shall be restricted or prohibited from effecting any transactions in any securities of the Company in accordance with applicable securities laws from and after the time that the transactions contemplated by this Agreement are first publicly announced pursuant to the initial press release as described in Section 4.4 and (iii) no Purchaser shall have any duty of confidentiality or duty not to trade in the securities of the Company to the Company, any of its Subsidiaries, or any of their respective officers, directors, employees, Affiliates or agent, including, without limitation, the Placement Agent, after the issuance of the initial press release as described in Section 4.4. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the covenant set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement.

4.14 Capital Changes. Until the one year anniversary of the Closing Date, the Company shall not undertake a reverse or forward stock split or reclassification of the Common Stock without the prior written consent of the Purchasers holding a majority in interest of the

Shares other than a reverse stock split that is required, in the good faith determination of the Board of Directors, to maintain the listing of the Common Stock on the Trading Market.

4.15 Exercise Procedures. The form of Notice of Exercise included in the Warrants set forth the totality of the procedures required of the Purchasers in order to exercise the Warrants. No additional legal opinion, other information or instructions shall be required of the Purchasers to exercise their Warrants. Without limiting the preceding sentences, no ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise form be required in order to exercise the Warrants. The Company shall honor exercises of the Warrants and shall deliver Warrant Shares in accordance with the terms, conditions and time periods set forth in the Transaction Documents.

4.16 Lock-Up Agreements. The Company shall not amend, modify, waive or terminate any provision of any of the Lock-Up Agreements except to extend the term of the lock-up period and shall enforce the provisions of each Lock-Up Agreement in accordance with its terms. If any party to a Lock-Up Agreement breaches any provision of a Lock-Up Agreement, the Company shall promptly use its best efforts to seek specific performance of the terms of such Lock-Up Agreement.

4.17 Shareholder Approval. The Company shall use its reasonable best efforts hold a special meeting of shareholders on or prior to [sixty (60)] days after the Closing date for the purpose of obtaining Shareholder Approval with respect to the terms of the Common Warrants, with the recommendation of the Company's Board of Directors that such proposal is approved, and the Company shall solicit proxies from its stockholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. If the Company does not obtain Shareholder Approval with respect to the terms of the Common Warrants at the first special meeting of the shareholders, the Company shall call a meeting every [sixty (60)] days thereafter to seek such Shareholder Approval until the date on which Shareholder Approval is obtained or the Warrants are no longer outstanding.

ARTICLE V.

MISCELLANEOUS

5.1 Termination. This Agreement may be terminated by any Purchaser, as to such Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the other Purchasers, by written notice to the other parties, if the Closing has not been consummated on or before the fifth (5^{th}) Trading Day following the date hereof; provided, however, that no such termination will affect the right of any party to sue for any breach by any other party (or parties).

5.2 Fees and Expenses. Except as expressly set forth in the Transaction Documents to the contrary, 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. The Company shall pay all Transfer Agent fees (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company and any exercise notice delivered by a Purchaser), stamp taxes and other taxes and duties levied in connection with the delivery of any Securities to the Purchasers.

5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, the Prospectus and the Prospectus Supplement, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules.

5.4 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective

on the earliest of: (a) the time of transmission, if such notice or communication is delivered via email attachment at the email address as set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the time of transmission, if such notice or communication is delivered via email attachment at the email address as set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

5.5 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and Purchasers which purchased at least 50.1% in interest of the Shares and Pre-Funded Warrants based on the initial Subscription Amounts hereunder (or, prior to the Closing, the Company and each Purchaser) or, in the case of a waiver, by the party against whom enforcement of any such waived provision is sought, provided that if any amendment, modification or waiver disproportionately and adversely impacts a Purchaser (or multiple Purchasers), the consent of such disproportionately impacted Purchaser (or at least 50.1% in interest of such multiple Purchasers) shall also be required. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any proposed amendment or waiver that disproportionately, materially and adversely affects the rights and obligations of any Purchaser relative to the comparable rights and obligations of the other Purchasers shall require the prior written consent of such adversely affected Purchaser. Any amendment effected in accordance with this Section 5.5 shall be binding upon each Purchaser and holder of Securities and the Company.

5.6 Headings. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

5.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of each Purchaser (other than by merger). Any Purchaser may assign any or all of its rights under this Agreement to any Person to whom such Purchaser assigns or transfers any Securities, provided that such transferee agrees in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchasers."

5.8 No Third-Party Beneficiaries. The Placement Agent shall be the third party beneficiary of the representations, warranties, and covenants of the Company in this Agreement and the representations, warranties, and covenants of the Purchasers in this Agreement. This Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, except as otherwise set forth in Section 4.8 and this Section 5.8.

5.9 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any Action or Proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such Action or Proceeding is improper or is an inconvenient venue for such Proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such Action or Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If any party shall commence an Action or Proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.8, the prevailing party in such Action or Proceeding shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Action or Proceeding.

5.10 Survival. The representations and warranties contained herein shall survive the Closing and the delivery of the Securities.

5.11 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such ".pdf" signature page were an original thereof.

5.12 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that

they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

5.13 Rescission and Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights; provided, however, that in the case of a rescission of an exercise of a Warrant, the applicable Purchaser shall be required to return any shares of Common Stock subject to any such rescinded exercise notice concurrently with the return to such Purchaser of the aggregate exercise price paid to the Company for such shares and the restoration of such Purchaser's right to acquire such shares pursuant to such Purchaser's Warrant (including, issuance of a replacement warrant certificate evidencing such restored right).

5.14 Replacement of Securities. If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Securities.

5.15 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each of the Purchasers and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any Action for specific performance of any such obligation the defense that a remedy at law would be adequate.

5.16 Payment Set Aside. To the extent that the Company makes a payment or payments to any Purchaser pursuant to any Transaction Document or a Purchaser enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to the Company, a trustee, receiver or any other Person under any law (including, without limitation, any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

5.17 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under any Transaction Document are several and not joint with the obligations of

any other Purchaser, and no Purchaser shall be responsible in any way for the performance or non-performance of the obligations of any other Purchaser under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Purchaser pursuant hereto or thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Purchaser shall be entitled to independently protect and enforce its rights including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Purchaser to be joined as an additional party in any Proceeding for such purpose. Each Purchaser has been represented by its own separate legal counsel in its review and negotiation of the Transaction Documents. For reasons of administrative convenience only, each Purchaser and its respective counsel have chosen to communicate with the Company through EGS. EGS does not represent any of the Purchasers and only represents the Placement Agent. The Company has elected to provide all Purchasers with the same terms and Transaction Documents for the convenience of the Company and not because it was required or requested to do so by any of the Purchasers. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and a Purchaser, solely, and not between the Company and the Purchasers collectively and not between and among the Purchasers.

5.18 Liquidated Damages. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

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

5.20 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

5.21 **WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY**

ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVES FOREVER TRIAL BY JURY.

(Signature Pages Follow)

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

HCW BIOLOGICS INC.

By:_____
Name:
Title:

Address for Notice:

E-Mail:

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

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: _____

Signature of Authorized Signatory of Purchaser: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Email Address of Authorized Signatory: _____

Address for Notice to Purchaser:

Address for Delivery of Warrants to Purchaser (if not same as address for notice):

Subscription Amount: $_____

Shares: _____

Pre-Funded Warrant Shares: _____ Beneficial Ownership Blocker ☐ 4.99% or ☐ 9.99%

Common Warrant Shares: Beneficial Ownership Blocker ☐ 4.99% or ☐ 9.99%

EIN Number: _____

☐ Notwithstanding anything contained in this Agreement to the contrary, by checking this box (i) the obligations of the above-signed to purchase the securities set forth in this Agreement to be purchased from the Company by the above-signed, and the obligations of the Company to sell such securities to the above-signed, shall be unconditional and all conditions to Closing shall be disregarded, (ii) the Closing shall occur on the first (1st) Trading Day following the date of this Agreement and (iii) any condition to Closing contemplated by this Agreement (but prior to being disregarded by clause (i) above) that required delivery by the Company or the above-signed of any agreement, instrument, certificate or the like or purchase price (as applicable) shall no longer be a condition and shall instead be an unconditional obligation of the Company or the above-signed (as applicable) to deliver such agreement, instrument, certificate or the like or purchase price (as applicable) to such other party on the Closing Date.

[SIGNATURE PAGES CONTINUE]

Exhibit 23.1a

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated May 15, 2024 (except for Note 16, as to which the date is March 28, 2025), with respect to the financial statements of HCW Biologics Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2024, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference of the aforementioned report in this Registration Statement, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Fort Lauderdale, Florida
February 17, 2026

Exhibit 23.1b

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement of HCW Biologics Inc. on Form S-1 of our report dated March 28, 2025 on the balance sheet of HCW Biologics Inc. as of December 31, 2024 and the statements of operations, stockholders' equity (deficit) and cash flows for the year ended, and to the reference to us under the heading "Experts" in the prospectus.

/s/ Crowe LLP

Crowe LLP

Indianapolis, Indiana
February 17, 2026

Calculation of Filing Fee Tables

S-1

HCW Biologics Inc.

Table 1: Newly Registered and Carry Forward Securities

☐ Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	1 Equity	Common stock, par value $0.0001 per share	457(o)	—	—	$5,000,000	0.0001381	$690.50				
Fees to be Paid	2 Equity	Pre-Funded Warrants	457(g)	—	—	$0.00	0.0001381	$0.00				
Fees to be paid	3 Equity	Common Stock Warrants	457(g)	—	—	$0.00	0.0001381	$0.00				
Fees to be paid	4 Equity	Common Stock Underlying Pre-Funded Warrants	457(o)	—	—	$0.00						
Fees Previously Paid	5 Equity	Common stock, par value $0.001 per share	457(o)			$5,000,000	0.0001381	$690.50				
Carry Forward Securities												
Carry Forward Securities												
	Total Offering Amounts:					$10,000,000		$1381.00				
	Total Fees Previously Paid:							$1381.00				
	Total Fee Offsets:							$0.00				
	Net Fee Due:							$0.00				

Offering Note

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the shares of Common Stock being registered hereby include an indeterminate number of shares of Common Stock that may be issuable as a result of stock splits, stock dividends or similar transactions. Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. The proposed maximum aggregate offering price of Common Stock proposed to be sold in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Pre-Funded Warrants issued in the offering, and the proposed maximum aggregate offering price of the Pre-Funded Warrants to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Common Stock issued in the offering. Accordingly, the proposed maximum aggregate offering price of the Common Stock and the Pre-Funded Warrants (including the Common Stock issuable upon exercise of the Pre-Funded Warrants), if any, is $5,000,000.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. In accordance with Rule 457(g), because the shares of Common Stock underlying the Pre-Funded Warrants are registered hereby, no separate registration fee is payable with respect to the Pre-Funded Warrants or the Common Stock issuable upon exercise thereof. Pursuant to Rule 457(g) under the Securities Act, no separate registration fee is required for these Pre-Funded Warrants.

(3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. In accordance with Rule 457(g), because the shares of Common Stock underlying the Pre-Funded Warrants are registered hereby, no separate registration fee is payable with respect to the Pre-Funded Warrants or the Common Stock issuable upon exercise thereof. Pursuant to Rule 457(g) under the Securities Act, no separate registration fee is required for these Common Stock Warrants

(4) Pursuant to Rule 416 under the Securities Act, the shares of Common Stock being registered hereby include an indeterminate number of shares of Common Stock that may be issuable as a result of stock splits, stock dividends or similar transactions.

(5) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. Reflects changes in offering amount and structure of the offering from that which was previously filed on Registration Statement on Form S-1 File No. 333-293396 filed on February 11, 2026 for up to $10.0 million for shares of Common Stock or Pre-Funded Warrants.

Table 2: Fee Offset Claims and Sources

☒ **Not Applicable**

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rule 457(p)												
Fee Offset Claims	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fee Offset Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 3: Combined Prospectuses

☒ **Not Applicable**

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A