

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

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

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

2834
Primary Standard Industrial
Classification Code Number

82-5024477
(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:

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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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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.

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

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION, DATED APRIL 23, 2026



Up to \$5,600,000, consisting of

Up to 13,625,304 Shares of Common Stock or

Up to 13,625,304 Pre-Funded Warrants to Purchase up to 13,625,304 Shares of Common Stock

Up to 13,625,304 Shares of Common Stock Underlying the Pre-Funded Warrants

We are offering on a reasonable best efforts basis up to 13,625,304 shares of our common stock, par value \$0.0001 per share (our “Common Stock”), or pre-funded warrants to purchase shares common stock in lieu thereof (the “Pre-Funded Warrants”), for gross proceeds of approximately \$5.6 million.

The assumed public offering price for each share of Common Stock is \$0.411, which is the last reported sale price per share of our common stock on the Nasdaq Capital Market (“Nasdaq”) on April 20, 2026. The final public offering price per share or per Pre-Funded Warrant will be determined through negotiation between us and the Placement Agent (as defined hereinafter) based upon a number of factors, including our history and our prospects, the industry in which we operate and other market conditions at the time of pricing 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 throughout this prospectus may not be indicative of the final offering price per share.

We are offering Pre-Funded Warrants to purchasers whose purchase of shares of Common Stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this offering, the opportunity to purchase, if any such purchaser so chooses, Pre-Funded Warrants, in lieu of shares of common stock. The public offering price of each Pre-Funded Warrant will be equal to the price at which one share of Common Stock is sold to the public in this offering, minus \$0.0001, and the exercise price of each Pre-Funded Warrant will be \$0.0001 per share. The Pre-Funded Warrants will be immediately exercisable and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full. For each Pre-Funded Warrant we sell, the number of shares of 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.

This prospectus also includes the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants. See “Description of Securities We Are Offering” in this prospectus for more information.

Our Common Stock is listed on Nasdaq under the symbol “HCWB”. On April 20, 2026, the last quoted sale price for our Common Stock as reported on Nasdaq was \$0.411 per share.

We have retained E.F. Hutton & Co. as the exclusive placement agent with respect to this offering (the “placement agent”). 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. We have agreed to pay the underwriter fees totaling 4.0% of the aggregate gross cash proceeds actually realized by the Company from the sale of the shares being offered hereby, excluding purchases made by officers, directors and significant existing stockholders of the Company. See “Plan of Distribution” beginning on page 25 of this prospectus for more information regarding these arrangements. You should read this prospectus, together with additional information described under the heading “Where You Can Find More Information,” carefully before you invest in any of our securities.

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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, 2025, filed with the Securities and Exchange Commission (the “SEC”) on March 31, 2026. 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 Inc. (“HCW Biologics” or the “Company”) is a clinical-stage biopharmaceutical company developing transformative fusion immunotherapeutics to support or treat diseases promoted by chronic inflammation. We have created novel compounds that represent a new class of drugs that we believe have the potential to fundamentally change the treatment of autoimmune disorders and other proinflammatory diseases, cancer and senescence-associated dysplasia. Among other things, we have begun commercialization of certain commercial-ready proprietary compounds for use as reagents in the production of immunotherapeutics for the treatment of infectious diseases and cancer. We want our products to improve patients’ healthspan as well as their quality of life, and possibly extend longevity.

Chronic inflammation is believed to be a significant contributing factor to the cause for many diseases and conditions that diminish health span and quality of life. The induction and retention of low-grade inflammation in the human body is mainly the result of persistent activation of immune cells and the accumulation of non-proliferative but metabolically active senescent cells.

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 promote the release of highly proinflammatory cytokines. Unresolved activation of immune cells leads to chronic low-grade inflammation, which perpetuates this cycle.

Two of the Company’s proprietary molecules, HCW9201 and HCW9206, are commercial-ready to be used as reagents in the production of immunotherapeutic treatments. On March 13, 2026, Science Advances, a peer-reviewed, high-impact journal, released a publication with the Company’s data that showed the Company’s proprietary, commercial-ready compound, HCW9206, could fundamentally change how CAR-T cell therapies are manufactured and potentially improve how they perform against diseases such as cancer and HIV. These findings support the Company’s belief that HCW9206 is a leap forward in both clinical potential and manufacturing efficiency.

The Company has developed two proprietary drug discovery and development platforms which we use to create novel fusion immunotherapeutics:

The TOBI™ (Tissue factOr-Based fusIon) platform. The TOBI™ platform is designed to engineer multi-functional fusion protein molecules and protein complexes that rebalance the immune system. 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 T-cell Receptor β Chain constant region (“TRBC”) platform. The TRBC platform is designed to engineer multi-function fusion protein molecules and protein complexes that rejuvenate the immune system. It employs a protein-based scaffold that can be packaged with multiple elements, including multi-specific cytokines, immune checkpoint inhibitors, and immune-cell engagers.

Our clinical development programs are based on a few select lead product candidates which will be advanced in Company-sponsored clinical trials or in partnership with a corporate partner. Our clinical development and financing strategy consider business development transactions as a key component for our plans to develop breakthrough therapeutics. We regularly assess our product portfolio to determine if clinical development through a corporate partnership is the optimal means to advance clinical development and commercialization.

Lead Product Candidates in Clinical Development

- HCW9302 is a clinical-stage compound that is an injectable, first-in-kind interleukin 2 (“IL-2”) fusion protein complex constructed using the Company’s proprietary TOBI platform technology. Its mechanism of action involves binding to IL-2 $\alpha\beta\gamma$ receptors predominantly expressed on regulatory T (“T_{reg}”) cells, thereby activating and expanding T_{reg} cells that can suppress unwanted immune and inflammatory responses. Beijing Trimmune Biotech Co., Ltd. (“Trimmune”) has an option to license the rights to the China market for HCW9302. On November 17, 2025, the first patient was dosed at The Ohio State University Wexner Medical Center for the Company-sponsored, multi-center first-in-human clinical trial to evaluate HCW9302 in patients with alopecia areata (NCT07049328).
- HCW11-018b is a preclinical molecule that is a novel, tetra-valent T-Cell engager we call the Big BiTE, since it consists of a BiTE (common for all T-Cell Engagers) and an Enhancer (which makes the HCWB T-Cell Engager the “BIG BiTE”). HCW11-018b is designed to address key challenges for first generation T-Cell Engagers: manufacturability, preclinical safety profile, and ability to treat solid tumors.
- HCW11-040 is a preclinical molecule that is a unique combination of cytokines and pembrolizumab, a generic form of Keytruda®, in a multi-functional fusion molecule. This lead product candidate exhibits the ability to expand T_{pex} cells without a cytokine storm in preclinical studies. In addition, it exhibits superior immune-cell activation, expansion, and cytotoxicity against cancer cells and tumors when compared to pembrolizumab in in-vitro and in-vivo studies.

Programs being Developed through Corporate Partnership

- HCW11-006 is a preclinical molecule that combines several different immune functional domains as part of a group of compounds characterized as multi-functional immune cell stimulators. This lead product candidate will be developed in partnership with Trimmune, the licensee responsible for the development and commercialization of HCW11-006. HCW11-006 will be developed by Trimmune, our licensee with exclusive worldwide rights for *in vivo* applications of this compound. Trimmune intends to begin Phase 1 clinical trials in China in mid-2027. The Company has an Opt-In Right for the Americas market that we may choose to exercise, based on the results of the first Phase 1 studies in China. We will continue to monitor the results of IND-enabling studies and results of the clinical study before making a decision on whether to exercise our Opt-In Right.

Commercial-Ready Reagents for Production of Immunotherapeutic Treatments

- HCW9206 is a proprietary fusion protein designed as a reagent to use in the production of CAR-therapies for the treatment of infectious diseases, including HIV, and cancer. HCW9206 is a novel class of immunotherapeutic that enables a single molecule to deliver synergistic signals from three different immune-stimulatory cytokines.
- HCW9201 is a proprietary fusion protein designed as a reagent to use in the production of Natural Killer (“NK”) cell-based therapies. It is a unique cytokine-induced memory-like phenotype that supports enhanced anti-tumor activity, robust trafficking, superior proliferation capacity, and metabolic flexibility, all of which contribute to treatment resilience in the adverse tumor microenvironment.

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 treatment 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.

Compliance with Nasdaq Listing Rules

On March 26, 2026, the Company received a written notice from the Nasdaq Listing Qualifications Staff (the “Staff”) indicating that the Company was not in compliance with the minimum bid price requirement for continued listing set forth in Nasdaq Listing Rule 5810(c)(3)(A), which requires listed securities to maintain a minimum bid price of \$1.00 per share. In accordance with Nasdaq rules, because the Company effected a reverse stock split in April 2025, the Company was not eligible for a 180-calendar day compliance period to regain compliance with the bid price requirement.

The Company timely requested a hearing before a Nasdaq Hearings Panel to appeal this determination, which request stayed any delisting or suspension action pending the outcome of the hearing process. The hearing is currently scheduled for May 5, 2026.

The Company remains subject to a mandatory panel monitor period following its prior regain of compliance with Nasdaq continued listing requirements in February 2026, pursuant to which the Company is not eligible to submit a compliance plan for this deficiency and is required to seek a hearing to address such non-compliance.

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.hwbiologics.com. Information on or accessed through our website is not incorporated into and not part of this prospectus.

OFFERING SUMMARY

Issuer:	HCW Biologics Inc.
Common stock we are offering:	Up to 13,625,304 shares of Common Stock based on an assumed public offering price of \$0.411 per share of Common Stock, which is equal to the last sale price of our common stock as reported by Nasdaq on April 20, 2026.
Pre-Funded Warrants to be offered:	<p>We are also offering up to 13,625,304 Pre-Funded Warrants to purchase up to 13,625,304 shares of Common Stock in lieu of shares of Common Stock to each purchaser whose purchase of shares of Common Stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this offering. The purchase price of each Pre-Funded Warrant will equal the price at which one share of Common Stock is being sold to the public in this offering, minus \$0.0001, and the exercise price of each Pre-Funded Warrant will be \$0.0001 per share. The Pre-Funded Warrants will be exercisable immediately and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full. For each Pre-Funded Warrant we sell, the number of shares of Common Stock we are offering will be decreased on a one-for-one basis.</p> <p>This prospectus also relates to the offering of our Common Stock issuable upon exercise of the Pre-Funded Warrants. See “Description of Securities We Are Offering – Pre-Funded Warrants.”</p>
Shares of Common Stock outstanding as of the date of this prospectus⁽¹⁾:	6,734,104 shares.
Shares of Common Stock to be outstanding immediately after this offering⁽¹⁾:	20,359,408 shares (assuming we sell only shares of Common Stock and no 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, marketing and advertising, and the remainder for general corporate purposes. General corporate purposes may include, among other things, working capital and other general corporate purposes. See “Use of Proceeds” beginning on page 12 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 8 of this prospectus.
Transfer Agent:	The transfer agent and registrar for our Common Stock is Equiniti Trust Company, LLC.
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.

(1) The number of shares of Common Stock outstanding is based on 6,734,104 shares outstanding as of April 20, 2026. The number excludes the following:

- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at \$26.00 per share;
- 5,497,702 shares issuable upon the conversion of outstanding warrants for \$0.6055 per share, including warrants to exercise up to 2,477,292 shares of Common Stock issued on February 19, 2026 and warrants to exercise up to 3,020,410 shares of Common Stock issued on November 20, 2025 and repriced on February 19, 2026, which are both subject to stockholder approval;
- 42,955 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”);
- 1,173 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 93,299 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 our Annual Report for the year ended December 31, 2025, filed on Form 10-K on March 31, 2026 (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 remain compliant with the continued listing requirements of Nasdaq, 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

Investing in our securities involves a high degree of risk. Before making an investment decision with respect to our securities, we urge you to carefully consider the risks described below and in the “Risk Factors” sections of our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2025, which is incorporated by reference in this prospectus, together with the information included in this prospectus and documents incorporated by reference herein, and in any free writing prospectus that we have authorized for use in connection with this offering. The risks and uncertainties incorporated by reference into this prospectus or described below are not the only ones we face. Additional risks and uncertainties not presently known or which we consider immaterial as of the date hereof may also materially harm our business and could result in a complete loss of your investment. If any of the matters discussed in the following risk factors were to occur, our business, financial condition, results of operations, cash flows, or prospects could be materially and adversely affected, the market price of our common stock could decline, as well as the value of the pre-funded warrants, and you could lose all or part of your investment in our securities.

Risks Related to this Offering

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 and elsewhere in this Annual Report.

On June 26, 2025, we received formal notice from Nasdaq that we were in compliance with 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 Nasdaq 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. On February 26, 2026, the Nasdaq Hearings Panel found that the Company regained compliance with all continued listing rules of The Nasdaq Capital Market. Pursuant to Listing Rule 5815(d)(4)(B), the Company will be subject to a Mandatory Panel Monitor per the January 7, 2026 letter. 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. On March 26, 2026, the Company received a written notice from the Staff which notified the Company that, for the 30 consecutive business days, the Company's security did not maintain a minimum bid price of \$1 per share, in accordance with Nasdaq Listing Rule 5810(c)(3)(A) ("Bid Price Rule"). Due to the fact that the Company effected a 1-for-40 reverse stock split on April 11, 2025, the Company was not afforded a 180-calendar day period to demonstrate compliance. The Company requested an appeal of this determination in a timely manner and currently has a hearing scheduled for May 5, 2026.

In addition, the stock market in general, and Nasdaq, and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Additionally, the trading prices for pharmaceutical, biopharmaceutical and biotechnology companies have been highly volatile. Also, broad market and industry factors may negatively affect the market price of our Common Stock, regardless of our actual operating performance.

Sales of substantial amounts of our securities in the public market could depress the market price of our common stock.

Our Common Stock is listed for trading on the Nasdaq Capital Market. If our stockholders sell substantial amounts of our Common Stock in the public market, or the market perceives that such sales may occur, the market price of our securities could fall and we may be unable to sell our securities in the future.

Our securities may experience extreme price and volume fluctuations, which could lead to costly litigation for us and make an investment in us less appealing.

The market price of our common stock may fluctuate substantially due to a variety of factors, including:

- the status and results of our clinical trials for our product candidates;
- our ability to fund and complete our clinical trials and, if such trials provide data supporting an FDA submission, our ability to apply for and obtain clearance from the FDA;
- our ability to remain a going concern;
- our ability to maintain our Nasdaq listing;
- our business strategy and plans;
- the potential market for our product candidates, if approved for sale in the U.S.;
- new regulatory pronouncements and changes in regulatory guidelines and timing of regulatory approvals;
- general and industry-specific economic conditions;
- variations in our quarterly financial and operating results, including the rate at which we incur negative cash flow in future periods;
- additions to or departures of our key personnel;
- changes in market valuations of other companies that operate in our business segments or in our industry;
- lack of trading liquidity;
- if our products are approved and become available for us to sell in the U.S., whether we ultimately achieve profitability or not;
- changes in accounting principles; and
- general market conditions, economic and other external factors.

The market prices of the securities of early-stage companies, particularly companies like ours that are seeking to obtain regulatory approval of their product candidates and do not yet generate operating revenue, have been highly volatile and are likely to remain highly volatile in the future. This volatility has often been unrelated to the operating performance of particular companies. In the past, companies that experience volatility in the market price of their securities have often faced securities class action litigation. Whether or not meritorious, litigation brought against us could result in substantial costs, divert our management's attention and resources and harm our financial condition and results of operations.

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 \$(0.08) per share based on the assumed public offering price of \$0.411 per share. 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 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 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.

Trading of our Common Stock may be limited, making it difficult for our stockholders to sell their shares, and future sales of Common Stock could reduce our stock price.

Our Common Stock currently trades on Nasdaq under the ticker “HCWB.” The liquidity of our Common Stock may be limited, including in terms of the number of shares that can be bought and sold at a given price and reduction in security analysts’ and the media’s coverage of us, if any. These factors may result in different prices for our Common Stock than might otherwise be obtained in a more liquid market and could also result in a larger spread between the bid and asked prices for our Common Stock. In addition, in the absence of a large market capitalization, our Common Stock is less liquid than the stock of companies with broader public ownership, and, as a result, the trading prices of our Common Stock may be more volatile. In the absence of an active public trading market, an investor may be unable to liquidate his/her investment in our Common Stock. Trading of a relatively small volume of our common stock may have a greater impact on the trading price of our Common Stock. We cannot predict the prices at which our Common Stock will trade in the future, if at all.

We do not currently intend to pay dividends on our common stock in the foreseeable future and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not anticipate paying any cash dividends to holders of our Common Stock for the foreseeable future. Consequently, investors must rely on sales of their Common Stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which our stockholders have purchased their shares.

FINRA sales practice requirements may limit a stockholder’s ability to buy and sell our securities.

Effective June 30, 2020, the SEC implemented Regulation Best Interest requiring that “A broker, dealer, or a natural person who is an associated person of a broker or dealer, when making a recommendation of any securities transaction or investment strategy involving securities (including account recommendations) to a retail customer, shall act in the best interest of the retail customer at the time the recommendation is made, without placing the financial or other interest of the broker, dealer, or natural person who is an associated person of a broker or dealer making the recommendation ahead of the interest of the retail customer.” This is a significantly higher standard for broker-dealers to recommend securities to retail customers than before under FINRA “suitability rules.” FINRA suitability rules do still apply to institutional investors and 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 securities to their customers, broker-dealers must make reasonable efforts to obtain information about the customer’s financial status, tax status, investment objectives and other information, and for retail customers determine the investment is in the customer’s “best interest” and meet other SEC requirements. As a result, fewer broker-dealers may be willing to make a market in our common stock, reducing a stockholder’s ability to resell shares of our common stock.

This offering may cause the trading price of our shares of Common Stock to decrease.

The price per Common Stock or Pre-Funded Warrant, may result in an immediate decrease in the market price of our shares. This decrease may continue after the completion of this offering.

Resales of our shares of Common Stock in the public market by the stockholders as a result of this offering may cause the market price of our shares of Common Stock to decline.

Sales of substantial amounts of our shares of Common Stock in the public market, or the perception that such sales might occur, could adversely affect the market price of our shares of Common Stock. The issuance of new shares of Common Stock could result in resales of our shares of Common Stock by our current shareholders concerned about the potential ownership dilution of their holdings. Furthermore, in the future, we may issue additional shares of Common Stock or other equity or debt securities exercisable or convertible into shares of Common Stock. Any such issuance could result in substantial dilution to our existing shareholders and could cause our stock price to decline.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$5.2 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 \$3.8 million, \$2.5 million and \$1.1 million, 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 \$0.411 per share, would increase (decrease) the net proceeds to us from this offering by approximately \$1.3 million, assuming the number of shares 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:

- Costs for clinical trials, including clinical trials to evaluate HCW9302 in patients with alopecia areata, and research to identify potential expanded indications;
- Funding for IND-enabling studies, in particular continued development of TRBC molecules known as second generation T-Cell Engagers and second generation immune checkpoint inhibitors;
- Up to \$2.5 million for future marketing efforts to be determined by management of the Company in its discretion, to communicate information about the Company to the financial community;
- Approximately \$1.1 million for trade payables and the settlement of ongoing or potential litigation;
- Up to \$500,000 for consulting and advisory services; and
- The remainder for general corporate purposes, including, among other things, working capital 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 December 31, 2025, on an actual basis, on a pro forma basis adjusted to reflect the issuance of 977,000 shares of Common Stock held in abeyance that were purchased but not issued when the Company entered into an inducement transaction on November 20, 2025 and 2,477,292 shares issued upon the exercise of pre-funded warrants issued on February 19, 2026, and on an as adjusted pro forma basis adjusted to reflect the issuance and sale by us of 13,625,304 shares in this offering at the assumed public offering price of \$0.411 per share (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 Annual Report on Form 10-K for the period ended December 31, 2025 and subsequent filings pursuant to the Exchange Act.

The following sets forth our cash and capitalization as of December 31, 2025 on:

- an actual basis;
- a pro forma basis adjusted for the effect of the following:
 - Purchase 2,477,292 shares of Common Stock on March 16, 2026, upon the exercise of pre-funded warrants the Company issued on February 19, 2026 to Armistice Capital Master Fund Ltd. in connection with an offering with gross proceeds of \$1.5 million, less commissions and transaction expenses;
 - Issuance of 977,000 shares of Common Stock as of March 16, 2026 previously held in abeyance since being purchased by Armistice Capital Master Fund Ltd. in an inducement transaction on November 20, 2025; and
- a pro forma as adjusted basis, to give post offering effect to the sale of 13,625,304 shares of Common Stock (and no issuance of Pre-Funded Warrants) in this offering at the assumed public offering price of \$0.411 per share (assuming the sale of the maximum offering amount), and after deducting commissions and estimated offering expenses payable by us.

	At December 31, 2025		
	Actual Basis (unaudited)	Pro Forma (unaudited)	As Adjusted Pro Forma (unaudited)
Cash	\$ 1,952,464	\$ 3,049,490	\$ 8,224,490
Stockholders’ 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 3,279,812 shares issued at December 31, 2025 ¹	328	674	2,037
Additional Paid-in Capital	111,280,287	112,376,967	117,550,604
Accumulated Deficit	(108,515,846)	(108,515,846)	(108,515,846)
Total Stockholders’ Equity	2,764,769	3,861,795	9,036,795
Total Capitalization	\$ 4,717,233	\$ 6,911,285	\$ 17,261,285

The above discussion and table are based on 3,279,812 shares of our Common Stock outstanding as of December 31, 2025, the issuance of 977,000 shares purchased in the Inducement Transaction that were held in abeyance as of December 31, 2025, and the issuance of 2,477,292 shares upon the exercise of pre-funded warrants issued in the February 2026 Offering. The number of shares outstanding as of December 31, 2025 and as adjusted for the Inducement Transaction and February 2026 Offering excludes the following:

- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at \$26.00 per share;
- 5,497,702 shares issuable upon the conversion of outstanding warrants for \$0.6055 per share, including warrants to exercise up to 2,477,292 shares of Common Stock issued on February 19, 2026 and warrants to exercise up to 3,020,410 shares of Common Stock for \$2.41 per share issued on November 20, 2025 and repriced according to an amendment entered into on February 19, 2026, which are both subject to stockholder approval;
- 42,955 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”);
- 1,173 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 93,299 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 as of December 31, 2025 was \$2.8 million, or approximately \$0.84 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 a warrant inducement agreement with a single institutional investor who is an existing stockholder of the Company, pursuant to which the investor agreed to immediately exercise in full all of its outstanding warrants originally issued on November 20, 2024 to purchase an aggregate of 1,510,205 shares of Common Stock at an amended exercise price of \$2.66 per share (“Inducement Transaction”). At closing of the Inducement Transaction, the Company issued 299,000 shares of Common Stock, with 1,211,205 shares of Common Stock held in abeyance. As of December 31, 2025, there were 977,000 shares of Common Stock held in abeyance. On February 25, 2026 and March 16, 2026, the investor requested that the Company issue 237,000 and 740,000, respectively, of the remaining shares of Common Stock held in abeyance. As a result of these issuances, there are no shares of Common Stock held in abeyance with respect to the Inducement Transaction as of March 16, 2026.

On February 19, 2026, the Company issued 2,477,292 units (the “Units”) consisting of (i) pre-funded warrants that may be exercised for up to 2,477,292 shares of Common Stock and (ii) Common Stock purchase warrants the exercise of which is conditioned on stockholder approval to purchase up to 2,477,292 shares of Common Stock (“February 2026 Offering”). The combined purchase price for each Unit consisted of one pre-funded warrant that may be exercised for one share of Common Stock and accompanying Common Stock Warrant to purchase one share of Common Stock was \$0.6054. The Common Stock Warrants have an exercise price of \$0.6055 per share, will be exercisable only upon receipt of stockholder approval thereof in accordance with applicable Nasdaq rules. The pre-funded warrants have an exercise price of \$0.0001. On March 16, 2026, the investor exercised the pre-funded warrants to purchase 2,477,292 shares of Common Stock.

The Company’s as-adjusted net tangible book value dilution per share of Common Stock (after giving effect to the Inducement Transaction and the February 2026 Offering) 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, the February 2026 Offering and completion of this offering. After giving effect to the offering and our sale of the shares in the offering at an assumed public offering price of \$0.411 per share, 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 December 31, 2025 would have been approximately \$9.9 million, or approximately \$0.49 per share of our Common Stock. This represents an immediate decrease in net tangible book value (after giving effect to the shares issued in the Inducement Transaction and exercise of pre-funded warrants issued in the February 2026 offering) as a result of this offering of (\$0.09) per share of our Common Stock to existing stockholders and an immediate dilution in net tangible book value of (\$0.08) per share of our Common Stock to investors in the offering, as illustrated in the following table, based on shares outstanding as of December 31, 2025 as adjusted for shares issued in the Inducement Transaction and the exercise of pre-funded warrants issued in the February 2026 Offering.

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, 2025 and subsequent Exchange Act reports.

Assumed public offering price per share of our Common Stock	\$	0.41
Net tangible book value (deficit) per share as of December 31, 2025		0.84
As adjusted net tangible book value per share following the Inducement and February 2026 Offering		0.57
Decrease in net tangible book value per share attributable to this offering		(0.09)
As adjusted net tangible book value per share as of December 31, 2025, after giving effect to the Inducement, the February 2026 Offering 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	\$	(0.08)

(1) The above discussion and table are based on 3,279,812 shares of our Common Stock outstanding as of December 31, 2025, the issuance of 977,000 shares purchased in the Inducement Transaction that were held in abeyance as of December 31, 2025, and the issuance of 2,477,292 shares upon the exercise of pre-funded warrants issued in the February 2026 Offering. The number of shares outstanding as of December 31, 2025 and as adjusted for the Inducement Transaction and February 2026 Offering excludes the following:

- 126,540 shares issuable upon the conversion of outstanding warrants exercisable at \$26.00 per share;
- 5,497,702 shares issuable upon the conversion of outstanding warrants for \$0.6055 per share, including warrants to exercise up to 2,477,292 shares of Common Stock issued on February 19, 2026 and warrants to exercise up to 3,020,410 shares of Common Stock for \$2.41 per share issued on November 20, 2025 and repriced according to an amendment entered into on February 19, 2026, which are both subject to stockholder approval;
- 42,955 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”);
- 1,173 shares for stock options underlying unvested employee equity awards under the 2019 Plan and 2021 Plan;
- 93,299 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 April 20, 2026, the closing sale price of our Common Stock was \$0.411 per share.

As of April 20, 2026, there were approximately 4,500 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 OFFICERS

Our executive officers and their ages as of April 23, 2026 and positions with HCW Biologics are provided in the table below and in the additional biographical descriptions set forth in the text below the table.

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

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

Hing C. Wong, Ph.D. — For biographical information, see “Continuing Directors.”

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 to 1989 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.

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 during 2024 and 2025:

Name and Principal Position	Fiscal Year	Salary (\$)	Bonus (\$)	Non-Equity Incentive Plan Compensation (\$) ⁽²⁾	All Other Compensation (\$) ⁽¹⁾	Total (\$)
Hing C. Wong, Ph.D. <i>Chief Executive Officer</i>	2025	\$ 421,785	\$ -	\$ —	\$ 16,871	\$ 438,656
	2024	\$ 349,219	\$ 5,000	\$ —	\$ 13,969	\$ 368,188
Rebecca Byam <i>Chief Financial Officer</i>	2025	297,412	-	—	11,896	309,309
	2024	143,496	5,000	—	5,740	154,236
Peter Rhode, Ph.D. <i>Chief Scientific Officer and Vice President of Clinical Operations</i>	2025	\$ 253,745	\$ -	—	\$ 10,150	\$ 263,895
	2024	\$ 246,795	\$ 5,000	—	\$ 9,872	\$ 261,667

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

(2) 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 or the compensation committee of our Board, as disclosed in our Executive Incentive Bonus Plan. See the section entitled "*Summary Compensation Table*" for Dr. Wong's bonus payment in 2025.

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 20,000 shares of our Common Stock, 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 or the compensation committee of our Board, 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 3,375 shares of our Common Stock, 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 3,375 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 3,375 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 3,375 and 2,000 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 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, 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 (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⁾	-(³)	172.40	9/8/2031
Rebecca Byam	8/29/2021	3,375 ⁽⁴⁾	3,375 ⁽⁴⁾	160.00	8/29/2031
	9/8/2021	2,000 ⁽⁵⁾	2,000 ⁽⁵⁾	172.40	9/8/2031
Peter Rhode, Ph.D	12/19/2019	561 ⁽⁶⁾	561 ⁽⁶⁾	5.59	12/19/2029
	12/22/2020	172 ⁽⁷⁾	172 ⁽⁷⁾	8.37	12/22/2030
	9/8/2021	500 ⁽⁸⁾	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 214 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.

BENEFICIAL OWNERSHIP OF SECURITIES

The following table sets forth certain information with respect to the beneficial ownership of our Common Stock as of April 20, 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 April 20, 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 6,734,104 shares of our Common Stock outstanding on April 20, 2026. 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
<i>Directors and Executive Officers</i>				
Hing C. Wong, Ph.D. ⁽¹⁾	501,911	20,000	521,911	7.7%
Peter Rhode, Ph.D. ⁽²⁾	1,939	1,233	3,172	*
Rebecca Byam ⁽³⁾	43,010	5,375	48,385	1.0%
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	9.1%

* 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 April 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.

Anticipated Purchases in this Offering

In connection with this offering, certain of our directors and executive officers intend to purchase an aggregate of \$430,000 of the securities offered hereby. Specifically, Scott Garrett, Chairman of our board of directors, intends to purchase \$250,000 of securities, Hing C. Wong, our Founder and Chief Executive Officer, intends to purchase \$160,000 of securities, and Rebecca Byam, our Chief Financial Officer, intends to purchase \$20,000 of securities. Such purchases will be made on the same terms and conditions as those offered to other investors in this offering.

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 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, including officers, directors and other significant stockholders, 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 5, 2025, the Company 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 a qualified offering, the Convertible Bridge Notes were converted into shares of our Common Stock at the final offering price in an offering that closed on May 15, 2025. In addition, holders of the Convertible Bridge Notes have the right to receive a portion of the proceeds of the Company's shares of Wugen common stock, if and when such shares are ever sold, determined by the 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, who was a member of the Company's Board of Directors at the time of his investment.

As of May 15, 2025, the outstanding principle of Convertible Bridge Notes were converted. The fair value of consideration transferred, including 36,242 shares of Common Stock and rights to proceeds of a portion of the Company's shares of Wugen common stock, was \$401,134, with the difference of \$131,135 being recognized as a loss on conversion. Due to the related party nature of the converting noteholders, the loss was recorded as additional paid-in capital in the Company's audited financial statements, incorporated by reference herein.

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 April 20, 2026, HCWB had 6,734,104 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.

Warrants

On February 19, 2026, we sold 2,477,292 units at a purchase price of \$0.6054 per unit, each consisting of one pre-funded warrant that may be exercised for one share of Common Stock and one accompanying warrant with an exercise price of \$0.6055 per share (“2026 Common Stock Warrants”). On March 16, 2026, the pre-funded warrants were exercised and the Company issued 2,477,292 shares of Common Stock. The warrants to exercise up to 2,477,292 shares of Common Stock for \$0.6055 per share become exercisable upon receipt of stockholder approval in accordance with applicable Nasdaq rules, and expire on the five-year anniversary of such approval. In a private transaction on February 19, 2026, we agreed, subject to stockholder approval, to reduce the exercise price of existing warrants to purchase up to 3,020,410 shares of our Common Stock (the “Inducement Warrants”), which were issued in November 2025 in connection with a warrant inducement transaction with an existing investor, from \$2.41 per share to \$0.0655 per share. The exercisability of the 2026 Common Stock Warrants and the effectiveness of the repricing of the Inducement Warrants are each subject to stockholder approval. We filed a definitive proxy statement on March 13, 2026 for a special meeting of stockholders to be held on April 27, 2026 to seek such approval. The Company is obliged to seek stockholder approval every 60 days, until such approval is obtained.

Our Transfer Agent

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

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".

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering up to 13,625,304 shares of Common Stock, or Pre-Funded Warrants in lieu thereof.

Common Stock

The material terms and provisions of our Common Stock are described under the caption “Description of Securities” in this prospectus.

Pre-Funded Warrants

The following summary of certain terms and provisions of the Pre-Funded Warrants that are being offered hereby is not complete and is subject to and qualified in its entirety by the provisions of the forms of Pre-Funded Warrants 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 of the form of Pre-Funded Warrant for a complete description of the terms and conditions of the Pre-Funded Warrants.

The term “prefunded” refers to the fact that the purchase price of our Common Stock in this offering includes almost the entire exercise price that will be paid under the Pre-Funded Warrants, except for a nominal remaining exercise price of \$0.0001 per share. The purpose of the Pre-Funded Warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% (or, upon election of the holder, 9.99%) of our outstanding shares of Common Stock following the consummation of this offering the opportunity to make an investment in the Company without triggering their ownership restrictions, by receiving Pre-Funded Warrants in lieu of our Common Stock which would result in such ownership of more than 4.99% (or 9.99%), and receive the ability to exercise their option to purchase the shares underlying the Pre-Funded Warrants at such nominal price at a later date.

Duration and Exercise Price

Each Pre-Funded Warrant offered hereby will have an initial exercise price of \$0.0001 per share. The Pre-Funded Warrants will be immediately exercisable and may be exercised at any time until the Pre-Funded Warrants are exercised in full. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price.

Exercise Limitation.

The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering a duly executed exercise notice accompanied by payment in full for the number of purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Pre-Funded Warrant to the extent that the holder would own more than 4.99% (or, at the election of a purchaser, 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 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. No fractional shares of Common Stock will be issued in connection with the exercise of a Pre-Funded Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Fundamental Transaction

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 voting securities, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the Pre-Funded Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Pre-Funded Warrants immediately prior to such fundamental transaction, other than one in which a successor entity that is a publicly traded corporation (whose stock is quoted or listed for trading on a national securities exchange, including, but not limited to, the New York Stock Exchange, the NYSE American, the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market) assumes the Pre-Funded Warrants such that the Pre-Funded Warrants shall be exercisable for the publicly traded Common Stock of such successor entity.

Transferability

Subject to applicable laws, a Pre-Funded Warrant may be transferred at the option of the holder upon surrender of the Pre-Funded Warrant to us together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the Pre-Funded Warrants on any national securities exchange or nationally recognized trading system.

No Rights as a Stockholder

Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of, the holders of the Pre-Funded Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Pre-Funded Warrants.

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 13,625,304 shares of Common Stock (or Pre-Funded Warrants in lieu thereof), based on an assumed public offering price of \$0.411 per share for gross proceeds of up to approximately \$5.6 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 E.F. Hutton & Co. 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 4.0% of the aggregate gross cash proceeds to us from the sale of the securities in the offering and a non-accountable expense allowance equal to 0.5% of the aggregate gross proceeds raised in the offering, excluding purchases made by officers, directors and significant existing stockholders of the Company. 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 \$100,000. In addition, we will pay the placement agent a non-refundable work fee of \$20,000.

The following table shows the public offering price, placement agent fees and proceeds included in the calculation thereof, 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 Share	Per Pre-Funded Warrant	Total
Public offering price			
Placement agent fees			
Purchases by officers, directors and significant stockholders	-	-	-
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 \$425,000, 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.

Lock-Up Agreements

Pursuant to certain “lock-up” agreements, our executive officers and directors have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic risk of ownership of, directly or indirectly, engage in any short selling of any shares of common stock or securities convertible into or exchangeable or exercisable for any shares of common stock, whether currently owned or subsequently acquired, without the prior written consent of the placement agent, for a period of 180 days after the closing date of the offering.

The placement agent, in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release common stock and other securities from lock-up agreements, the placement agent will consider, among other factors, the holder’s reasons for requesting the release, the number of shares of common stock and other securities 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 45 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

If, during the term of this offering, 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 with, or receives any proceeds from, any investors introduced to the Company by the placement agent in connection with the offering, whether or not such transaction is effected through the placement agent, then the Company will pay the placement agent upon the closing of such financing the compensation payable in connection with this offering with respect to the gross proceeds of such financing attributable to such investors.

For purposes of the foregoing, an investor will be deemed to have been introduced by the placement agent if the placement agent initiated contact with such investor in connection with a potential financing transaction during the term of its engagement, including investors identified within fifteen (15) days following such introduction.

For the avoidance of doubt, no compensation will be payable with respect to any such transaction following termination of the placement agent’s engagement for cause in accordance with FINRA Rule 5110(g)(5)(B).

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 shares 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 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by the placement agent acting as principal. Under these rules and regulations, the placement agent:

- may not engage in any stabilization activity in connection with our securities; and
- 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.

Trading Market

Our common stock is listed on the Nasdaq Capital Market under the symbol “HCWB.” We do not intend to apply for listing of the Pre-Funded Warrants on any securities exchange or other nationally recognized trading system.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon by Clark Hill PLC, Chicago, Illinois and Los Angeles, California. Zarif Law Group, PC, New Jersey, is acting as counsel to the placement agent in connection with certain legal matters related to this offering.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2025 have been so incorporated in reliance on the report of Crowe LLP, independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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's rules allow us to "incorporate by reference" information into this prospectus, 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.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below (except in each case the information contained in such document to the extent "furnished" and not "filed") that we have filed with the SEC:

- (i) our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2025, as filed with the SEC on March 31, 2026;
- (ii) Our Proxy Statement on [Schedule 14A](#) for a Special Meeting of Stockholders filed with the SEC on March 13, 2026;
- (iii) Current Reports on Form 8-K filed with the SEC on [February 13, 2026](#), [February 19, 2026](#), [March 2, 2026](#), [March 17, 2026](#), [March 31, 2026](#) and [April 16, 2026](#), excluding any information furnished in such reports under Item 2.02, Item 7.01 or Item 9.0;
- (iv) The description of the Company's Common Stock contained in the registration statement on [Form 8-A](#) filed with the SEC on July 9, 2021 pursuant to Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating that description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering (excluding any information furnished rather than filed), shall be deemed to be incorporated by reference into this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes hereof to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

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 \$5,600,000, consisting of

Up to 13,625,304 Shares of Common Stock or

Up to 13,625,304 Pre-Funded Warrants to Purchase up to 13,625,304 Shares of Common Stock

Up to 13,625,304 Shares of Common Stock Underlying such Pre-Funded Warrants

PROSPECTUS

E.F. Hutton & Co.

April , 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	\$	150,000
Accounting fees and expenses		50,000
SEC registration fee		800
Miscellaneous fees and expenses		25,000
Total	\$	225,800

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 Maxim 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 Maxim 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 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, which registration statement became effective on January 29, 2026.

On February 17, 2026, the Company entered into a securities purchase agreement with Armistice Capital Master Fund in connection with a follow-on public offering pursuant to which the Company issued Units consisting of: (i) Pre-Funded Warrants to purchase up to 2,477,292 shares of Common Stock and (ii) up to 2,477,292 Common Stock purchase warrants the exercise of which is conditioned on stockholder approval to purchase up to 2,477,292 shares of Common Stock. In connection with this offering, on February 17, 2026, the Company also entered into a privately negotiated agreement with the Investor, which holds certain existing outstanding warrants to purchase up to 3,020,410 shares of Common Stock to seek stockholder approval in accordance with applicable Nasdaq rules to reduce the exercise price of such warrants to the public offering price per Unit paid in the offering. The combined purchase price for each Unit consisted of one Pre-Funded Warrant that may be exercised for one share of Common Stock and accompanying Common Stock Warrant to purchase one share of Common Stock was \$0.6054. The Common Stock Warrants has an exercise price of \$0.6055 per share, will be exercisable only upon receipt of stockholder approval. The Pre-Funded Warrants have an exercise price of \$0.0001, are exercisable immediately and will not expire until exercised in full. All Pre-Funded Warrants were exercised on March 16, 2026, at which time the Company issued 2,477,292 shares of Common Stock. The Common Stock Warrants and Prior Warrants require stockholder approval, per Nasdaq rules. The Company filed a definitive proxy statement on March 13, 2026 for a Special Stockholders' Meeting to be held on April 27, 2026, at this the stockholders will vote on a proposal to permit this transaction.

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.

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 Common Stock Purchase Warrant	8-K	001-40591	4.1	02/19/2026	
4.5	Form of Pre-Funded Common Stock Purchase Warrant	8-K	001-40591	4.2	02/19/2026	
4.6	Form of Common Stock Warrant, dated May 7, 2025, between Company and Holder	10-Q	001-40591	10.13	08/18/2025	
4.7	Form of Pre-Funded Warrant Purchase Warrant					X
5.1	Opinion of Clark Hill PLC					X
10.1	Form of Inducement Agreement between the Company and Armistice Capital Management LLC	8-K	001-40591	10.1	11/20/2025	
10.2	Securities Purchase Agreement, dated February 17, 2026, between Company and Purchaser	8-K	001-40591	10.2	02/19/2026	
10.3	Amendment to Existing Warrants Agreement, dated February 17, 2026, between the Company and Purchaser	8-K	001-40591	10.3	02/19/2026	
10.4	Form of Lock-up Agreement	S-1	333-393396	10.42	02.11.2026	
10.5	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	
10.6+	2019 Equity Incentive Plan, as amended, and forms of agreement thereunder.	S-1	333-256510	10.2	07/09/2021	
10.7+	First Amendment to 2019 Equity Incentive Plan.	S-1	333-256510	10.3	07/09/2021	
10.8+	2021 Equity Incentive Plan and forms of agreement thereunder	S-1	333-256510	10.4	07/09/2021	
10.9+	Employment Agreement, dated July 6, 2021, between Peter Rhode and HCW Biologics Inc.	S-1	333-256510	10.6	07/09/2021	
10.10+	Employment Agreement, dated October 9, 2019, between Rebecca Byam and HCW Biologics Inc.	S-1	333-256510	10.7	07/09/2021	

Exhibit No.	Exhibit title	Incorporated by reference				Filed or furnished herewith
		Form	File No.	Exhibit No.	Filing date	
10.11+	Non-Employee Director Compensation Policy.	S-1	333-256510	10.8	07/09/2021	
10.12+	Employment Agreement, dated June 18, 2021, between Dr. Hing C. Wong and HCW Biologics Inc.	S-1	333-256510	10.13	07/09/2021	
10.13+	Executive Incentive Bonus Plan	S-1	333-256510	10.11	07/09/2021	
10.14†	Exclusive License Agreement, dated December 24, 2020, between HCW Biologics Inc. and Wugen, Inc.	S-1	333-256510	10.10	07/09/2021	
10.15†	Master Services Agreement, dated March 14, 2019, between HCW Biologics Inc. and EirGenix, Inc.	S-1	333-256510	10.12	07/09/2021	
10.16†#	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	
10.17#	Loan Agreement by and between HCW Biologics Inc. and Cogent Bank, dated August 15, 2022	10-Q	001-40591	10.1	11/07/2022	
10.18#	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	
10.19	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	
10.20	Form of Amended and Restated Senior Secured Note Purchase Agreement, dated July 2, 2024, by and between the Company and the Purchase party thereto	10-Q	001-40591	10.1	08/14/2024	
10.21	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	
10.22	Form of Escrow Agreement, dated May 1, 2025, by and between the Company, Escrow Agent and Noteholder party thereto	10-Q	001-40591	10.4	08.14.2024	
10.23	Form of First Amendment to Amended and Restated Secured Note Purchase Agreement, dated September 30, 2024, by and between the Company and Purchaser party thereto	10-Q	001-40591	10.5	11/14/2024	
10.24	Form of Secured Promissory Note by and between the Company and the Holder party thereof	10-Q	001-40591	10.2	08/14/2024	
10.25	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	
10.26	Equity Purchase Agreement, dated February 20, 2025, between the Company and Square Gate Master Fund - Series 4.	8-K	001-40591	10.1	2/21/2025	
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	2/21/2025	
10.28	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	
10.29	Amended and Restated Amended and Restated License, Research and Co-Development Agreement, dated November 17, 2025, between the Company and Beijing Trimmune Biotech Co., Ltd.	S-1	333-293396	10.40	02/11/2026	
10.30†#	Amendment 1 to Amended and Restated License, Research and Co-Development Agreement, dated January 27, 2026, between the Company and Beijing Trimmune Biotech Co., Ltd.	S-1	333-293396	10.43	02/11/2026	
10.31†#	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	02/11/2026	
10.32	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	
10.33	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	
10.34	Placement Agency Agreement, dated February 17, 2026, between the Company and Maxim Group LLC	8-K	001-40591	10.1	02/19/2026	
10.35	Form of Securities Purchase Agreement					X
10.36	Form of Lock-Up Agreement					X
23.1	Consent of Independent Registered Public Accounting Firm					X
23.2	Opinion of Clark Hill PLC (included in Exhibit 5.1)					X
101.INS	Inline XBRL Instance Document					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)					X
107	Filing Fee Table					X

+ Indicates a management contract or compensatory plan or arrangement.

†† Certain information in this document has been excluded pursuant to Item 601(b)(10) of Regulation S-K. Such excluded information is not material and is the type of information the Registrant treats as private and confidential. The Registrant agrees to furnish supplementally such information to the SEC upon request.

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 April 23, 2026.

HCW BIOLOGICS INC.

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

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Hing C. Wong, acting alone or together with another attorney-in-fact, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for such person and in his or her name, place and stead, in any and all capacities, to sign any or all further amendments (including post-effective amendments) to this registration statement (and any additional registration statement related hereto permitted by Rule 462(b) promulgated under the Securities Act (and all further amendments, including post-effective amendments, thereto)), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Scott T. Garrett</u> Scott T. Garrett	Chairman of the Board of Directors	April 23, 2026
<u>/s/ Rebecca Byam</u> Rebecca Byam	Chief Financial Officer	April 23, 2026
<u>/s/ Hing C. Wong</u> Hing C. Wong	Chief Executive Officer	April 23, 2026
<u>/s/ Rick S. Greene</u> Rick S. Greene	Director	April 23, 2026
<u>/s/ Lisa M. Giles</u> Lisa M. Giles	Director	April 23, 2026

FORM OF PLACEMENT AGENCY AGREEMENT

[•], 2026

PERSONAL AND CONFIDENTIAL

HCW Biologics Inc.
2929 N. Commerce Parkway
Miramar, FL 33025
Attention: Hing Wong, Ph.D., Chief Executive Officer

Dear Dr. Wong:

This agreement (the "**Agreement**") constitutes the agreement between E.F. Hutton & Co. (the "**Placement Agent**") on one hand, and HCW Biologics Inc., a Delaware corporation (the "**Company**") and each of the Company and the Placement Agent, a "**Party**" and, together, the "**Parties**") on the other hand, pursuant to which the Placement Agent shall serve as the exclusive placement agent for the Company, on a "reasonable best efforts" basis, in connection with the proposed placement (the "**Placement**") of [•] shares (the "**Shares**") of the Company's common stock, par value \$0.0001 per share ("**Common Stock**") (or pre-funded warrants to purchase Common Stock (the "**Pre-Funded Warrants**") in lieu of shares of Common Stock). The Shares and Pre-Funded Warrants are collectively referred to herein as the "**Securities**." The terms of the Placement and the Securities shall be mutually agreed upon by the Company and the purchasers (each, a "**Purchaser**" and collectively, the "**Purchasers**") and nothing herein constitutes that the Placement Agent would have the power or authority to bind the Company or any Purchaser or an obligation for the Company to issue any Securities or complete the Placement. This Agreement and the documents executed and delivered by the Company and the Purchasers in connection with the Placement, including, without limitation, a securities purchase agreement (the "**Purchase Agreement**") and Pre-Funded Warrant certificates, are collectively referred to as the "**Transaction Documents**." The closing of the Placement shall be referred to herein as the "**Closing**" and the date of the Closing shall be referred to herein as the "**Closing Date**."

The Company expressly acknowledges and agrees that the Placement Agent's obligations hereunder are on a reasonable best efforts basis only and that the execution of this Agreement does not constitute a commitment by the Placement Agent to purchase the Securities and does not ensure the successful placement of the Securities or any portion thereof or the success of the Placement Agent with respect to securing any other financing on behalf of the Company. With the prior written consent of the Company, the Placement Agent may retain other brokers or dealers to act as sub-agents or selected-dealers on its behalf in connection with the Placement. Capitalized terms that are not otherwise defined herein have the meanings given to such terms 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, 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 Purchasers. 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 the Closing of the Offering as provided in the Purchase Agreements. 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 four percent (4.0%) of the aggregate gross proceeds, excluding all proceeds from sales of Securities to any officers, directors, employees or significant existing stockholders of the Company, raised in the Offering (the "**Cash Fee**");
- (ii) A non-accountable expense allowance equal to one-half of one percent (0.5%) of the aggregate gross proceeds, excluding all proceeds from sales of Securities to any officers, directors, employees or significant existing stockholders of the Company, raised in the Offering (the "**Non-Accountable Expense Fee**").

The foregoing fees are due and payable to the Placement Agent immediately upon the closing of the Offering and shall be disbursed to the Placement Agent simultaneously with the delivery of the proceeds of the Offering to the Company.

For the avoidance of doubt, in the event the Company proceeds with a financing transaction outside of the Placement Agent with an Introduced Party, as defined below, during the term of this Agreement, the Placement Agent shall be entitled to receive full commissions at the percentage stated above.

The term “Introduced Party” refers to persons and/or entities introduced to the Company by the Placement Agent, to be subsequently memorialized in Exhibit A (each an “**Introduced Party**”), which shall be updated from time to time. With respect to each Introduced Party, without limitation, the Company acknowledges that the Placement Agent is not responsible for the actions of the Introduced Parties or their agents. For the purposes of this Agreement, the Company shall be considered to have been introduced to a person and/or entity by the Placement Agent so long as the Placement Agent delivers any communication, including but not limited to an investment presentation, term sheet, introductory email, or other correspondence, relating to a potential financing transaction, to such person and/or entity and each such person and/or entity/investor is actually introduced to the management of the Company during the Term. Each such person and/or entity shall be listed on Schedule A within fifteen (15) days following such introduction. The Placement Agent’s failure to list a person or entity in Exhibit A shall not extinguish the Placement Agent’s right to compensation if the Placement Agent can demonstrate that such person or entity, was, in fact, introduced during the Term. The Placement Agent may, in its sole discretion, provide a term sheet with material terms of the investment from potential investors without disclosing their actual names to the Company unless and until it is required for closing for the Company to receive their names.

(b) The term (the “**Term**”) of the Placement Agent’s exclusive engagement for the Offering will begin on the date of this Agreement and end upon the earlier of thirty (30) days after the date of this Agreement or the date of the Closing unless extended or earlier terminated by the Parties in writing.

Notwithstanding anything to the contrary contained herein, the provisions concerning the payment of fees, reimbursement of expenses, tail, indemnification and contribution, confidentiality, conflicts, independent contractor, and waiver of the right to trial by jury will survive any expiration or termination of this Agreement. Notwithstanding anything to the contrary contained herein, the Company has the right to terminate this Agreement for cause in compliance with FINRA Rule 5110(g)(5)(B)(i). The exercise of such right of termination for cause eliminates the Company’s obligations with respect to the provisions relating to the tail fees. Notwithstanding anything to the contrary contained in this Agreement, in the event that the Offering pursuant to this Agreement shall not be carried out for any reason whatsoever during the Term, the Company shall be obligated to pay to the Placement Agent its actual and accountable out-of-pocket expenses related to the Offering (including the fees and disbursements of the Placement Agent’s legal counsel) as set forth in Section 6 hereunder.

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**"). The Company shall furnish, or cause to be furnished, to the Placement Agent all information requested by the Placement Agent for the purpose of rendering services hereunder and conducting due diligence (all such information being the "**Information**"). In addition, the Company agrees to make available to the Placement Agent upon request from time to time the officers, directors, accountants, counsel and other advisors of the Company. The Company recognizes and confirms that the Placement Agent (a) will use and rely upon the Information, including any documents provided to investors in each Offering (the "**Offering Documents**") and upon information available from generally recognized public sources in performing the services contemplated by this Agreement without having independently verified the same; (b) does not assume responsibility for the accuracy or completeness of the Offering Documents or the Information and such other information; and (c) will not make an appraisal of any of the assets or liabilities of the Company. Upon reasonable request, the Company will meet with the Placement Agent or its representatives to discuss all information relevant for disclosure in the Offering Documents and will cooperate in any investigation undertaken by the Placement Agent thereof, including any document included or incorporated by reference therein. At the request of the Placement Agent, the Company shall deliver such legal letters, including, without limitation, opinions, comfort letters, officers' and secretary certificates, and good standing certificates, all in a form and substance reasonably satisfactory to the Placement Agent and its counsel as is customary for the Offering. The Placement Agent shall be a third-party beneficiary of any representations and warranties, covenants made by the Company in any Offering Documents.

(c) The Closing of the Offering shall be conducted pursuant to the Purchase Agreement via wire transfer and such Securities shall be registered in such name or names and shall be in such denominations as set forth on the signature page of each respective Purchaser of the Purchase Agreement. The Placement Agent shall not have any independent obligation to verify the accuracy or completeness of any information contained in the Purchase Agreement or other subscription documents for the Offering (the "**Subscription Documents**") or the authenticity, sufficiency, or validity of any check delivered by any prospective Purchaser in payment for the Securities, nor shall the Placement Agent incur any liability with respect to any such verification or failure to verify.

Section 2. Representations, Warranties, and Covenants.

(a) **Representations of the Company.** With respect to the Securities, each of the representations and warranties made by the Company to the Purchasers in the Purchase Agreement in connection with the Placement, is hereby incorporated herein by reference into this Agreement (as though fully restated herein) and is, as of the Closing Date, hereby made to, and in favor of, the Placement Agent. In addition to the foregoing, the Company represents and warrants that, to its knowledge, there are no affiliations with any Financial Industry Regulatory Authority ("**FINRA**") member firm among the Company's officers, directors or any holders of five percent (5.0%) or more of the outstanding shares of Common Stock.

(b) Covenants of the Company. The Company covenants and agrees to continue to retain (i) a firm of Public Company Accounting Oversight Board independent registered public accountants for a period of at least two (2) years after the Closing Date and (ii) a competent transfer agent with respect to the Shares for a period of two (2) years after the Closing Date.

(c) Representations of the Placement Agent. The Placement Agent represents and warrants that it (i) is a member in good standing of FINRA, (ii) is registered with the Commission as a broker/dealer under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), (iii) is licensed as a broker/dealer under the laws of the United States of America, applicable to the offers and sales of the Securities by the Placement Agent, (iv) is and will be a corporate body validly existing under the laws of its place of incorporation, and (v) has full power and authority to enter into and perform its obligations under this Agreement. The Placement Agent will immediately notify the Company in writing of any change in its status with respect to subsections (i) through (v) above. The Placement Agent covenants that it will use its reasonable best efforts to conduct the Placement hereunder in compliance with the provisions of this Agreement and the requirements of applicable law.

Section 3. Delivery and Payment. The Closing shall occur at the offices of Clark Hill PLC, Company Counsel (or at such other place as shall be agreed upon by the Parties, including via remote transmission of Closing documentation and the Transaction Documents). Subject to the terms and conditions hereof, at the Closing, payment of the purchase price for the Securities sold on the Closing Date shall be made by federal funds via wire transfer, 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 Company Counsel. All actions taken at the Closing shall be deemed to have occurred simultaneously. The Company and the Placement Agent may agree to conduct one or more Closings of the Offering.

Section 4. Closing. The obligations of the Placement Agent and the closing of the sale of the Securities (the "Placement Agent Securities") are subject to the accuracy, when made and on the Closing Date, of the representations and warranties on the part of the Company contained herein and in the Purchase Agreement, to the performance by the Company of its obligations hereunder and under the Purchase Agreement, and to each of the following additional conditions, any of which may be waived in writing by the Placement Agent:

(a) Transaction Documents. The Transaction Documents between the Company and the Purchasers shall have been executed and delivered.

(b) Corporate Proceedings and Legal Opinion. All corporate proceedings and other legal matters incident to the authorization, execution, and delivery of this Agreement, the Purchase Agreement (as filed with the Secretary of State of Delaware), and the transactions contemplated hereby shall be completed or resolved in a manner reasonably satisfactory to the Placement Agent. The Placement Agent shall have received a legal opinion from Company Counsel, addressed to the Placement Agent and dated as of the Closing Date, in form and substance reasonably acceptable to the Placement Agent.

(c) No Material Adverse Change. Subsequent to the execution and delivery of this Agreement and prior to the Closing Date, there shall not have occurred 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, the Disclosure Schedules and the Prospectus (a "Material Adverse Change"). In addition, subsequent to the execution and delivery of this Agreement and prior to the Closing Date, in the Placement Agent's reasonable judgment after consultation with the Company, there shall not have occurred any (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 of the Company, taken as a whole, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document.

(d) Officer's and Secretary's Certificates. The Placement Agent has received customary certificates of the Company's Chief Executive Officer and Chief Financial Officer (the "Officer's Certificate") as to the accuracy of the representations and warranties contained in the Purchase Agreement, and a certificate of the Company's Secretary (or other suitable executive officer) (the "Secretary's Certificate") certifying (i) that the Company's organizational documents are true and complete, have not been modified and are in full force and effect; (ii) that the resolutions of the Company's Board of Directors (or any authorized committee thereof) relating to the Placement are in full force and effect and have not been modified; and (iii) as to the incumbency of the officers of the Company. Each of the Officer's Certificate and Secretary's Certificate must be dated as of the Closing Date, and all documents referenced in the Secretary's Certificate must be attached thereto. The Company shall have taken no 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 Nasdaq Capital Market, nor has the Company received any information suggesting that the U.S. Securities and Exchange Commission (the "Commission") or the Nasdaq Capital Market or other U.S. applicable national exchange is contemplating terminating such registration or listing.

(e) Certificate of Good Standing. The Company shall deliver a certificate of good standing of the Company issued by the Secretary of State of the State of Delaware as of a date within five (5) Business Days prior to the Closing Date.

(f) Lock-Up Agreements. The Placement Agent shall have received duly executed Lock-Up Agreements, in form and substance reasonably satisfactory to the Placement Agent, duly executed and delivered by the Company, each of its executive officers and directors, each holder of five percent (5%) or more of the Company's outstanding Common Stock, and each person or entity listed on Schedule B attached hereto pursuant to which such persons agree not to, directly or indirectly, offer, sell, contract to sell, grant any option to purchase, or otherwise dispose of any shares of the Company's securities during the six (6) month period following the Release Date, subject to customary exceptions. In addition, the Company shall agree not to, directly or indirectly, offer, sell, contract to sell, issue, or otherwise dispose of any shares of the Company's securities during the forty-five (45) day period following the Release Date, subject to customary exceptions.

(g) Purchase Agreement and Other Deliverables. The Company shall have delivered, or caused to be delivered, all deliverables set forth in the Purchase Agreement, in form and substance reasonably satisfactory to the Placement Agent and its counsel, and such agreements shall be in full force and effect.

(h) No Legal Impediment. No statute, regulation, rule, executive order, decree, ruling, or injunction shall have been enacted, entered, promulgated, or endorsed by any court or governmental authority of competent jurisdiction which prohibits or materially adversely affects any of the transactions contemplated by this Agreement.

(i) Placement Agent Compensation. The Cash Fee and Non-Accountable Expense Fee calculated in the manner provided in Section 1(a), and reimbursement of expenses as set forth in Section 6, shall be paid or delivered to the Placement Agent at Closing by wire transfer of immediately available funds to an account specified by the Placement Agent to the Company prior to the Closing.

If any condition specified in this Section 4 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 the 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), Section 8 (Representations and Indemnities to Survive Delivery), and Section 14 (Tail) shall at all times be effective and shall survive such termination.

Section 5. Covenants and Agreements of the Company and Placement Agent. The Company further covenants and agrees with the Placement Agent as follows:

(a) **Amendments, Supplements and Other Matters.** The Company will comply with the Securities Act and the Exchange Act, and the rules and regulations of the Commission thereunder, so as to permit the completion of the sale of the Securities as contemplated in this Agreement. If during the period in which a prospectus is required by law to be delivered in connection with the distribution of Shares 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 Zarif Law Group P.C. ("Placement Agent Counsel") acting as counsel for the Placement Agent, it becomes necessary to amend or supplement the SEC Reports in order to make the statements therein, in 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 SEC Reports, the Company will promptly prepare an appropriate amendment or supplement to the SEC Reports, that is necessary in order to make the statements therein as so amended or supplemented, in light of the circumstances under which they were made, as the case may be, not misleading, or so that the SEC Reports, as so amended or supplemented, will comply with law. Before amending the SEC Reports, the Company will furnish the Placement Agent with a copy of such proposed amendment or supplement and will not distribute any such amendment or supplement to which the Placement Agent reasonably objects.

(b) **Copies of any Amendments and Supplements to the SEC Reports.** The Company will furnish the Placement Agent, without charge, during the period beginning on the date hereof and ending on the Closing Date, as many copies of the SEC Reports and other documents to be furnished to the Purchasers as the Placement Agent may reasonably request; *provided* that the Company's filing of the SEC Reports on the Electronic Data Gathering and Analysis Retrieval system of the SEC shall be deemed to satisfy this covenant.

(c) **Transfer Agent.** The Company will maintain, at its expense, a transfer agent for the Securities.

(d) **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.

(e) **Additional Documents.** The Company will enter into such customary Closing documentation as the Placement Agent or the Purchasers 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 Purchasers, in consultation with the Company.

(f) **No Manipulation of Price.** The Company will not take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, the stabilization or manipulation of the price of any of its securities, including of its Common Stock.

(g) **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.

(h) **Announcement of Offering.** The Company acknowledges and agrees that the Placement Agent may, subsequent to the Closing and at the Placement Agent's expense, make public its involvement with the Offering. Prior to issuing any press release, public announcement, or other public communication that references the Offering, its terms, any participating investor, or the Placement Agent, the Company shall provide the Placement Agent with a draft no later than two (2) business days prior to issuance. The Placement Agent shall have the right to review and approve such communication, which approval shall not be unreasonably withheld, conditioned, or delayed, and shall be deemed given if the Placement Agent does not respond within such two (2) business day period. If applicable law or stock exchange rule requires disclosure on an expedited basis, the Company shall notify the Placement Agent as soon as practicable, use commercially reasonable efforts to incorporate the Placement Agent's comments prior to issuance, and provide the Placement Agent a copy of the final communication upon release.

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

(j) **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 2711(e), the parties hereto 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.

Section 6. Payment of Expenses. Subject to the following, the Company shall reimburse the Placement Agent promptly upon request for all reasonable and accountable out-of-pocket expenses incurred in connection with the Offering, whether or not there is a closing of the Offering, including but not limited to road show and travel expenses (including, if applicable, the costs associated with the use of a third-party electronic road show service (such as Net Roadshow)), due diligence expenses, the costs of background checks on the Company's officers and directors and any of its shareholders designated by the Placement Agent, the costs associated with the Placement Agent's use of book-building and compliance software, the fees and expenses of the Placement Agent's legal counsel and any other independent advisors selected and retained by the Placement Agent, and all fees, expenses and disbursements required under the blue sky securities laws of such states and other jurisdictions as the Placement Agent may reasonably designate (with the Company's consent, which shall not be unreasonably withheld), provided that the expenses reimbursable to the Placement Agent under this Section 6 shall not exceed \$100,000, which will be paid from the proceeds of this Offering at Closing. In addition, upon execution of this Agreement, the Company shall pay the Placement Agent a non-refundable work fee of \$20,000 for deal related expenses including legal retainers (the "**Work Fee**").

The Company will bear all fees, disbursements and expenses incurred by the Company in connection with any proposed Offering, including, without limitation, the Company's legal and accounting fees and disbursements; the costs of preparing, printing, mailing and delivering the Registration Statement, the preliminary and final prospectus contained therein and amendments thereto, post-effective amendments and supplements thereto, any other offering materials, this Agreement and related documents (all in such quantities as the Placement Agent may reasonably require); preparing and printing stock certificates; the costs of any "due diligence" meetings; filing fees (including SEC filing fees), costs and expenses (including third party expenses and disbursements) incurred in registering the Offering and FINRA filing fees.

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 including reasonable attorneys' fees (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 a breach by the Company of any of its representations, warranties, or covenants contained in this Agreement or in any certificate delivered by or on behalf of the Company in connection with this Agreement, (ii) caused by, or arising out of or in connection with, any untrue statement or alleged untrue statement of a material fact contained in the SEC Reports 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 such documents), or (iii) 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 (iii) 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, bad faith, 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, assume the defense of any such action including the employment of counsel reasonably satisfactory to the Placement Agent, which counsel may also be Company Counsel. 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 (i) 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 (ii) 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, 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.

(f) The Placement Agent and the Company agree that the obligations of each of the Parties are solely corporate obligations, and that no officer, director, employee, agent, or shareholder of either Party shall be subjected to any personal liability whatsoever to any person, nor will any claim for liability or suit be asserted by, or on behalf of, either the Placement Agent or the Company. In no event shall the Placement Agent be liable to the Company, nor will the Company be liable to the Placement Agent, whether a claim be in tort, contract or otherwise, for any amount in excess of the total amount paid by the Company to the Placement Agent under 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 the 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, telecopied, or e-mailed and confirmed to the parties hereto as follows:

If to E.F. Hutton & Co.:

E.F. Hutton & Co.
745 Fifth Avenue, 34th Floor & PH
New York, NY 10151
Attn: Anthony Salazar
Email: asalazar@efhutton.com

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

Zarif Law Group P.C.
808 Springwood Avenue, Suite 110
Asbury Park, NJ 07712
Attn: Morris C. Zarif, Managing Partner
Email: mzarif@zariflg.com

If to the Company:

HCW Biologics Inc.
2929 N. Commerce Parkway
Miramar, FL 33025
Attn: Hing Wong, Ph.D.
Email: hingwong@hcwbiologics.com

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

Clark Hill PLC
130 E. Randolph, Suite 3900
Chicago, IL 60601
Attn: Jim Groth
Jeny Zarmon
Email: jgroth@clarkhill.com
jzarmon@clarkhill.com

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

Section 10. Prior Agreement. By entering into this Agreement, the parties hereto agree that any prior letter of engagement between the parties relating to the Offering, shall automatically terminate and cease to have any effect whatsoever and shall be superseded in its entirety by this Agreement.

Section 11. Successors and Assignment. 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 8 hereof, and to their respective successors, and personal representative, and no other person will have any right or obligation hereunder.

Section 12. 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 13. Governing Law Provisions. This Agreement and the transactions contemplated hereby shall be governed as to validity, interpretation, construction, effect, and in all other respects by the internal laws of the State of New York, without regard to the conflict of laws principles thereof. The Placement Agent and the Company agree that with respect to any controversy or claim relating to, arising under or involving this Agreement or breach thereof (a "**Claim**"), the matter shall first be submitted for mediation through the Judicial Arbitration and Mediation Service, Inc. ("**JAMS**") and its applicable rules in New York, New York, provided, however, that in the case of a breach or threatened breach of the non-circumvention covenant stated herein, the Placement Agent may seek and obtain, in addition to any remedies available under this Agreement or applicable law, an injunction or other equitable relief from any court of competent jurisdiction and nothing in this Agreement shall in any way limit or condition its right and recourse to seek and obtain such equitable relief.

In the event that the Placement Agent and the Company are not able to agree on a mediator within thirty (30) days of the first party seeking mediation, the presiding Judge of the Superior Court of the county which the venue would lie for the filing of a complaint for relief in such Claim shall have jurisdiction to appoint a mediator. The parties covenant that they will participate in the mediation in good faith.

In the event that the Placement Agent and the Company are unable to resolve any claim after mediation as set forth in the preceding paragraph, then the parties hereby agree that such Claim shall be submitted to JAMS for final and binding arbitration pursuant to its Comprehensive Arbitration Rules and Procedures (the "**Arbitration Rules**") in New York, New York. The arbitration shall be conducted before a neutral arbitrator who shall be an attorney or retired Judge and shall be selected in accordance with the Arbitration Rules. The arbitrator's award shall be final and binding on all parties. Except to the extent otherwise required pursuant to the applicable JAMS rules and procedures and applicable law, each party will pay the fees of its respective attorney(s), expert(s), and other fees.

Without limiting the mediation and arbitration provisions set forth above, each party hereby irrevocably agrees and consents to be subject to the jurisdiction of the state court sitting in New York County, State of New York, or if the state court lacks jurisdiction, the United States District Court for the Southern District of New York, in any suit, action or proceeding pursuant to this Agreement. Each party hereby irrevocably consents to the service of any and all process in any such suit, action or proceeding by the delivery of such process in person, by overnight courier, facsimile or first class mail with a copy to email to such party as set forth in Section 9 hereof.

Section 14. Tail. If there is a Closing of the Offering, or if this Agreement terminates prior to Closing (other than a termination for cause in compliance with FINRA Rule 5110(g)(5)(B)(i)), the Placement Agent shall be entitled to compensation under Section 1 hereof, calculated in the manner set forth therein, with respect to any public offering or other equity financing of any kind ("**Financing**") if, prior to any time within the twelve (12) month period following the expiration or termination of this Agreement (the "**Tail Period**"), either (i) a Financing is consummated with an investor actually introduced by Placement Agent to the management of the Company during the Term and that is listed in Exhibit A, provided that such person or entity was included in Exhibit A delivered to the Company within five (5) business days following the termination of this Agreement, and provided that the Placement Agent was the proximate cause of such Financing. For the avoidance of doubt, the Company shall have no restriction on its ability to pursue any other financing, whether or not similar to the Offering, including with any other placement agent, investor or source of capital, and no compensation shall be payable with respect to any Financing involving persons or entities not listed on Exhibit A.

Section 15. 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. 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 has acted at arm's length, are not agents of, and owe no fiduciary duties to the Company or any other person, (ii) the Placement Agent owes the Company only those duties and obligations set forth in this Agreement, and (iii) the Placement Agent may have interests that differ from those of the Company. The Company waives to the full extent permitted by applicable law any claims it may have against the Placement Agent arising from an alleged breach of fiduciary duty in connection with the offering of the Securities.

(c) The Company shall be responsible for any and all compliance with the securities laws applicable to it.

(d) Each Party agrees not to mention the name of the other Party or its agents in any press release or news announcement without the express written consent of the other party.

(e) This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Delivery of an executed counterpart of this Agreement by facsimile, email (including .pdf) or other electronic transmission shall be equally as effective as delivery of a manually executed counterpart.

Section 16. Confidentiality. In the event of the consummation or public announcement of the Offering, the Placement Agent shall have the right to disclose its participation in such offering, including, without limitation, the Offering at its own cost of "tombstone" advertisements in financial and other newspapers and journals.

Section 17. Limitations on Engagement. The Company acknowledges that the Placement Agent has been retained only by the Company, that the Placement Agent is providing services hereunder as an independent contractor (and not in any fiduciary or agency capacity) and that the Company's engagement of the Placement Agent is not deemed to be on behalf of, and is not intended to confer rights upon, any shareholder, owner or partner of the Company or any other person not a party hereto as against the Placement Agent or any of its affiliates, or any of its or their respective officers, directors, controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act), employees or agents. Unless otherwise expressly agreed in writing by the Placement Agent, no one other than the Company is authorized to rely upon this Agreement or any other statements or conduct of the Placement Agent, and no one other than the Company is intended to be a beneficiary of this Agreement. The Company acknowledges that any recommendation or advice, written or oral, given by the Placement Agent to the Company in connection with the Placement Agent's engagement is intended solely for the benefit and use of the Company's management and directors in considering a possible Offering and any such recommendation or advice is not on behalf of, and shall not confer any rights or remedies upon, any other persons or be used or relied upon for any other purpose.

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

[SIGNATURE PAGE TO THE PLACEMENT AGENCY AGREEMENT]

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,

E.F. Hutton & Co.

By: _____
Name: Duncan B. Swanston
Title: Supervisory Principal

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

HCW Biologics Inc.

By: _____
Name: Hing Wong, Ph.D.
Title: Chief Executive Officer

SCHEDULE A

LIST OF INTRODUCED PARTIES

[To be provided by the Placement Agent]

SCHEDULE B

Additional Lock-Up Parties

HCW BIOLOGICS INC.

FORM OF PRE-FUNDED WARRANT

Warrant Shares: []

Initial Exercise Date: [], 2026

Issue Date: [], 2026

THIS PRE-FUNDED WARRANT (the "Warrant") certifies that, for value received, [] or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the "Initial Exercise Date") and until this Warrant is exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from HCW Biologics Inc., a Delaware corporation (the "Company"), up to [] shares of Common Stock (as subject to adjustment hereunder, the "Warrant Shares"). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Purchase Agreement"), dated [], 2026, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

a) Exercise of Warrant. Subject to Section 2(e) herein, 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 facsimile copy or 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 Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) 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 aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.0001 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.0001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be \$0.0001, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. 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 $\frac{(A-B)(X)}{(A)}$, 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 shares of 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 with 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 characteristics of the Warrants being exercised, and the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the shares of Common Stock are then listed or quoted on a Trading Market, the daily volume weighted average price of the shares of Common Stock for such date (or the nearest preceding date) on the Trading Market on which the shares of Common Stock is then listed or quoted as reported by Bloomberg (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 shares of Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the shares of Common Stock are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the shares of Common Stock are then reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per shares of Common Stock so reported, or (d) in all other cases, the fair market value of a share of shares 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.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the shares of Common Stock are then listed or quoted on a Trading Market, the bid price of the shares of Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the shares of Common Stock are then listed or quoted as reported by Bloomberg (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 shares of Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the shares of Common Stock are not then listed or quoted for trading on OTCQB or OTCQX and if prices for shares of 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 shares of Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the 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.

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) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), 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 earliest of (i) two (2) Trading Days 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 shares of 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 shares of 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 (other than any such failure that is solely due to any action or inaction by the Holder with respect to such exercise), 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 shares of 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 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 Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares or other equity interests 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) Intentionally Omitted.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of 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 Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of 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 Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person (excluding mergers effected solely to change the Company's name), (ii) the Company (and all of its Subsidiaries, taken as a whole), 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 more than 50% of the outstanding shares of Common Stock or more 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 shares of Common Stock or any compulsory share exchange pursuant to which the shares of Common Stock are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock or more 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), and to the extent is within the Company's control to cause the successor or acquiring corporation to deliver to the Holder the foregoing, 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. The Company shall cause any successor entity in a Fundamental Transaction that is within the Company's control and in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

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

g) Notice to Holder.

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

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the shares of Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the shares of Common Stock, (C) the Company shall authorize the granting to all holders of Common Stock rights or warrants to subscribe for or purchase any shares of Common Stock (or other equity interests) of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the shares of Common Stock, any consolidation or merger to which the Company (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 shares of Common Stock are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 10 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the shares of Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the shares of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or 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 Report on Form 6-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws, 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 original Issue Date 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), 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 Trading Day, then such action may be taken or such right may be exercised on the next succeeding Trading Day.

d) Authorized Shares.

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

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

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

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Purchase Agreement.

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 or the Purchase Agreement, 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 notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Purchase Agreement.

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

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

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

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the written consent of the holders holding the majority of the then outstanding Warrants, 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: Hing C. Wong, Ph.D.
Title: Chief Executive Officer

NOTICE OF EXERCISE

TO: _____

(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:



Clark Hill PLC
130 E. Randolph Street, Suite 3900
Chicago, Illinois 60601
T (312) 985-5900
F (312) 985-5999

April 23, 2026

HCW Biologics Inc.
2929 N Commerce Parkway
Miramar, Florida 33025

Re: HCW Biologics Inc.
Sale of Securities Under Form S-1 Registration

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 \$5,600,000.00 of shares (each a "**Common Share**") of the Company's common stock, \$0.0001 par value per share (the "**Common Stock**") or Pre-Funded Warrant to purchase shares of Common Stock (the "**Pre-Funded Warrants**" and each share of Common Stock underlying a Pre-Funded Warrant, a "**PFW Share**").

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.

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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, 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.

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 (as defined below) 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 are generally 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.

“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.

“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.

“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 each of the directors and executive officers of the Company, in the form of Exhibit A 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).

“Nasdaq” means The Nasdaq Capital Market.

“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 and prior to the Closing Date, provided that the Per Share Purchase Price for the Pre-Funded Warrant shall be the Per Share Purchase Price minus \$[*].

“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.

“Placement Agent” means E.F. Hutton & Co.

“Pre-Funded Warrants” 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 will expire when exercised in full.

“Pre-Funded Warrant Shares” means the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants.

“Pre-Settlement Period” shall have the meaning ascribed to such term in Section 2.1.

“Pre-Settlement Shares” shall have the meaning ascribed to such term in Section 2.1.

“Preliminary Prospectus” means any preliminary prospectus included in the Registration Statement, as originally filed or as part of any amendment thereto, or filed with the Commission pursuant to Rule 424(a) of the rules and regulations of the Commission under the Securities Act, including all information, documents and exhibits filed with or incorporated by reference into such preliminary prospectus, including all information, documents and exhibits filed with or incorporated by reference into such preliminary prospectus.

“Pricing Prospectus” means (i) the Preliminary Prospectus relating to the Securities that was included in the Registration Statement immediately prior to [*] a.m./p.m. (New York City time) on the date hereof and (ii) any free writing prospectus (as defined in the Securities Act) identified on Schedule I hereto, taken together.

“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 prospectus filed for the Registration Statement.

“Purchaser Party” shall have the meaning ascribed to such term in Section 4.8.

“Registration Statement” means the effective Registration Statement on Form S-1 (File No. 333-[*]) which registers the sale of the Shares, the Pre-Funded Warrants, and the Pre-Funded Warrant Shares to the Purchasers.

“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.

“SEC Reports” shall have the meaning ascribed to such term in Section 3.1(h).

“Securities” means the Shares, the Pre-Funded Warrants and the Pre-Funded 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, but excluding the Pre-Funded Warrant Shares.

“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 and Pre-Funded Warrants (if applicable) 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 (excluding for the avoidance of doubt, 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 for cash).

“Subsidiary” means any subsidiary of the Company as set forth on Exhibit 21.1 to the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2025, 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 or the New York Stock Exchange (or any successors to any of the foregoing).

“Transaction Documents” means this Agreement, the placement agency agreement, dated as of the date hereof, by and between the Company and the Placement Agent, the Pre-Funded 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 [____], and any successor transfer agent of the Company.

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, an aggregate of \$[*] of Shares; 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, by so indicating such election prior to their issuance, 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, with respect to each Purchaser, at the election of such Purchaser at Closing, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of the Shares on the Closing Date. In each case, the election to receive Pre-Funded Warrants is solely at the option of the Purchaser. 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” (“DVP”) settlement with the Company or its designee. The Company shall deliver to each Purchaser its respective Shares and Pre-Funded Warrants (if any) 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 occur at the offices of Company Counsel or such other location (including remotely by electronic transmission) or as the Company and the Placement Agent shall mutually agree. Unless otherwise directed by the Placement Agent, settlement of the Shares shall occur via 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 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, and the Company shall be deemed unconditionally bound to sell, such Pre-Settlement Shares to such Purchaser 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.

Notwithstanding the foregoing, with respect to any Notice(s) of Exercise (as defined in the Pre-Funded Warrants) delivered on or prior to 04:00 p.m. (New York City time) on the Trading Day immediately prior to 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 Pre-Funded 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, 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 directed to the Placement Agent and the Purchasers, in form and substance reasonably acceptable to the Placement Agent;
- (iii) a certificate of the Chief Financial Officer of the Company regarding certain financial information included in the Registration Statement and Prospectus.
- (iv) 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;
- (v) 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 (minus the number of shares of Common Stock issuable upon exercise of such Purchaser's Pre-Funded Warrant, if applicable), registered in the name of such Purchaser;
- (vi) if applicable, 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 Warrants divided by the Per Share Purchase Price, subject to adjustment therein;
- (vii) on the date hereof, the duly executed Lock-Up Agreements; and
- (viii) the Preliminary Prospectus and the Prospectus (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
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(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 DVP 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) when made and on the Closing Date of the representations and warranties of the Purchasers contained herein (unless such representation or warranty is 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 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 such representation or warranty is 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 since the date hereof; 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 after the date of this Agreement 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 or otherwise made herein to the extent of the disclosure contained in the corresponding section of the Disclosure Schedules, the Company hereby makes the following representations and warranties to each Purchaser:

(a) Subsidiaries. All of the direct and indirect material subsidiaries of the Company are set forth in Schedule 3.1(a). The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. 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, if applicable under the laws of the jurisdiction in which they were formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor in 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, would 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"); provided, however, that "Material Adverse Effect" shall not include any event, occurrence, fact, condition or change, directly or indirectly, arising out of or attributable to: (i) the announcement, pendency or completion of the transactions contemplated by the Transaction Documents, or (ii) any action required or permitted by the Transaction Documents or any action taken (or omitted to be taken) with the written consent of or at the written request of Purchaser). As to all Company and Subsidiary power, authority and qualification, 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 necessary action on the part of the Company and no further action is required by the Company, the Board of Directors, a committee of 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, would not have or reasonably be expected to result in a Material Adverse Effect; provided, that a change in market price or trading volume of the Common Stock alone shall not be deemed, in and of itself, to constitute 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, (iii) the notice(s) and/or application(s) to and approvals by each applicable Trading Market for the issuance and sale of the Securities and the listing of the Shares and Pre-Funded Warrant Shares for trading thereon in the time and manner required thereby, (iv) such filings as are required to be made under applicable state securities laws, and (v) any such consents, waivers and authorizations that have been or, prior to the Closing Date, will be, obtained by the Company (collectively, the "Required Approvals").

(f) Issuance of the Securities; Registration. The Shares 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 Pre-Funded Warrant Shares, when issued in accordance with the terms of the Pre-Funded Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Pre-Funded Warrants are valid and binding obligations of the Company, enforceable against the Company in accordance with their terms. 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 Pre-Funded Warrants. The Company has prepared and filed the Registration Statement in conformity with the requirements of the Securities Act, which became effective on [*], 2026, 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 any Preliminary Prospectus or 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 Pricing Prospectus and the Prospectus and any amendments or supplements thereto, at the time the Pricing Prospectus and 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. The Company was at the time of the filing of the Registration Statement eligible to use Form S-1 and is eligible to use Form S-1 on the date hereof and on the Closing Date.

(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 the number of shares of Common Stock owned beneficially, and of record, by Affiliates of the Company as of the date hereof. Except as disclosed in the SEC Reports, 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 equity awards under the Company's equity incentive 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. Except as have been complied with or waived, 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 except as set forth 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 set forth 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 Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the 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 (2) 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 Pricing Prospectus and the Prospectus, 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, or to the extent corrected or modified by a subsequent amendment, 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, as have been amended or restated as of the date hereof, 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 set forth on Schedule 3.1(i), since [____], (i) there has been no event, occurrence or development that has had or that would reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any material 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 equity incentive 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, 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 prior to the time 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”). Neither the Company nor any Subsidiary, nor, to the knowledge of the Company, any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, which would result in a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any material investigation by the Commission involving the Company or any current or former director or officer of the Company that is required to be disclosed in the SEC Reports that is not disclosed. 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 would reasonably be expected to result in a Material Adverse Effect. To the knowledge of the Company, 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. 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 applicable 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 would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(l) Compliance. 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 would 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 would 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 certificates, authorizations and permits would 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, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to so have would 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 reasonably 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 consolidated 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 would not have or reasonably be expected to 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 would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has no knowledge of any facts that would preclude it from having valid license rights or clear title to the Intellectual Property Rights. The Company has no knowledge that it lacks or will be unable to obtain any rights or licenses to use all Intellectual Property Rights that are necessary to conduct its business.

(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 for companies of similar size as the Company in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage. 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), during the past three fiscal years and the subsequent interim period through the date of this Agreement, 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 or director 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 in all material respects 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. 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.

(t) Certain Fees. Except for compensation payable by the Company to the Placement Agent as set forth in the Pricing Prospectus and Prospectus, 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 immediately after receipt of payment for the Shares and Pre-Funded Warrants, will not be required to register as an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

(v) Registration Rights. Except as set forth in the SEC Reports, 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. 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 would 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 or might constitute material, non-public information which is not otherwise disclosed in the Pricing Prospectus and the Prospectus. 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, (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 \$25,000 (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. 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 or any applicable anti-corruption or anti-bribery laws.

(dd) Accountants. The Company's independent registered public accounting firm is Crowe LLP. 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 ended December 31, 2025.

(ee) No Disagreements with Accountants and Lawyers. There are no disagreements of any kind presently existing, or reasonably anticipated by the Company to arise, between the Company and the accountants and lawyers formerly or presently employed by the Company and the Company is current with respect to any fees owed to its accountants and lawyers which could affect the Company's ability to perform any of its obligations under any of the Transaction Documents.

(ff) 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.

(gg) Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(f) and 4.12 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 Pre-Funded 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.

(hh) 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.

(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 plans 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 security breach or other 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 security breach or other 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) 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").

(ll) 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.

(mm) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries or its Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA") and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its Subsidiaries or its Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent (25%) 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.

(nn) 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 Pre-Funded Warrants, it will be either: (i) 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 or (ii) a "qualified institutional buyer" as defined in Rule 144A(a) 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 and has not been 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 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 Shares, Pre-Funded Warrants and Pre-Funded Warrant Shares. The Shares and Pre-Funded Warrants shall be issued free of legends. If all or any portion of a Pre-Funded Warrant is exercised at a time when there is an effective registration statement to cover the issuance or resale of the Pre-Funded Warrant Shares, the Pre-Funded 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 Pre-Funded Warrant Shares) is not effective or is not otherwise available for the sale or resale of the Pre-Funded Warrant Shares, the Company shall immediately notify the holders of the Pre-Funded 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 Pre-Funded 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 Pre-Funded Warrant Shares in compliance with applicable federal and state securities laws). The Company shall use commercially reasonable efforts to keep a registration statement (including the Registration Statement) registering the issuance or resale of the Pre-Funded Warrant Shares effective during the term of the Pre-Funded Warrants.

4.2 Furnishing of Information. Until the earlier of the time that (i) no Purchaser owns Securities and (ii) the Pre-Funded Warrants have expired, the Company covenants to use its best efforts 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) 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 of 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 or the rules of any Trading Market, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication, unless such information has previously been disclosed in accordance with this Section 4.4. 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. The Company shall use approximately \$2.5 million of the net proceeds from the sale of the Securities hereunder, payable to IR Agency LLC pursuant to a Consulting Agreement of even date herewith and the remainder for general corporate purposes and working capital purposes including, without limitation, payment of agreed settlement amounts of \$620,000 and \$250,000 to Eirgenix, Inc. and B&I Contractors, Inc., respectively, and payment of consulting fees and related expenses, including up to \$500,000 payable to one of the Purchasers pursuant to a Consulting Agreement of even date herewith, in each case on such terms and conditions as determined by the Company, and shall not use such proceeds: (a) for the satisfaction of any portion of the Company's debt, other than (i) payment of trade payables in the ordinary course of the Company's business and prior practices and (ii) the settlement payments described above, (b) for the redemption of any Common Stock or Common Stock Equivalents, (c) for the settlement of any outstanding litigation, other than the settlements described above, 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 (unless such action is solely 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 (x) the employment thereof has been specifically authorized by the Company in writing, (y) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (z) 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 (1) for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed; or (2) 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, warranties, covenants or agreements made by such Purchaser Party in this Agreement or in 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 Pre-Funded Warrant Shares pursuant to any exercise of the Pre-Funded Warrants.

4.10 Listing of Common Stock. The Company hereby agrees to use all commercially reasonable 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 Pre-Funded Warrant Shares on such Trading Market and promptly secure the listing of all of the Shares and Pre-Funded 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 Pre-Funded Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Pre-Funded 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 Equal Treatment of Purchasers. No consideration (including any modification of this Agreement) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration is also offered to all of the parties to this Agreement. 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.

4.12 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.

4.13 Exercise Procedures. The form of Notice of Exercise included in the Pre-Funded Warrants sets forth the totality of the procedures required of the Purchasers in order to exercise the Pre-Funded Warrants. No additional legal opinion, other information or instructions shall be required of the Purchasers to exercise their Pre-Funded 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 Pre-Funded Warrants. The Company shall honor exercises of the Pre-Funded Warrants and shall deliver Pre-Funded Warrant Shares in accordance with the terms, conditions and time periods set forth in the Transaction Documents.

4.14 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 commercially reasonable efforts to seek specific performance of the terms of such Lock-Up Agreement.

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 (5th) 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 Pricing Prospectus and the Prospectus, 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. 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 file such notice with the Commission pursuant to a Current Report on Form 8-K.

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 group of Purchasers), the consent of such disproportionately impacted Purchaser (or group of 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 and warranties of the Company in this Agreement and the representations and warranties 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 (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docuSign.com) or other transmission method, such signature shall be deemed to have been duly and validly delivered and 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 Pre-Funded 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 Pre-Funded 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 the legal counsel of the Placement Agent. The legal counsel of the Placement Agent 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 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.

5.19 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.

5.20 **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.

Address for Notice:

By: _____
Name: Hing C. Wong, Ph.D.
Title: Chief Executive Officer

E-Mail:

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

Clark Hill PLC
Attn: [_____] [_____] [_____]

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK
SIGNATURE PAGE FOR PURCHASER FOLLOWS]

[PURCHASER SIGNATURE PAGES TO HCW BIOLOGICS INC.
SECURITIES PURCHASE AGREEMENT]

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 Pre-Funded 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%

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 by the first (1st) Trading Day following the date of this Agreement (or the second (2nd) Trading Day following the date of this Agreement 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) 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]

FORM OF LOCK-UP AGREEMENT

[____], 2026

HCW Biologics Inc.
2929 N. Commerce Parkway
Miramar, FL 33025

Re: Placement Agency Agreement, dated as of [____], 2026 (the "Placement Agency Agreement"), between HCW Biologics Inc. (the "Company") and E.F. Hutton & Co. (the "Placement Agent").

Ladies and Gentlemen:

Defined terms not otherwise defined in this letter agreement (the "Letter Agreement") shall have the meanings set forth in the Placement Agency Agreement. In satisfaction of a condition of the Company's obligations under the Placement Agreement, the undersigned irrevocably agrees with the Company that, from the date hereof until one hundred eighty (180) days after the Closing Period (such period, the "**Restriction Period**"), the undersigned will not offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the undersigned or any Affiliate of the undersigned to the extent such Affiliate transaction would be required to be reported by the undersigned during the Restriction Period with the Securities and Exchange Commission in accordance with Section 13 or Section 16 of the Exchange Act), directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), with respect to, any shares of Common Stock of the Company or securities convertible, exchangeable or exercisable into, shares of Common Stock of the Company beneficially owned, held or hereafter acquired by the undersigned (the "**Securities**"), other than Securities acquired in the Offering, or make any demand for or exercise any right or cause to be filed a registration, including any amendments thereto, with respect to the registration of any shares of Common Stock or Common Stock Equivalents or publicly disclose the intention to do any of the foregoing. Beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act. The undersigned acknowledges that the Company shall provide written notice to the transfer agent of the Company to inform them of the Restriction Period, which written notice shall include notification by email. In order to enforce this covenant, the Company shall impose irrevocable stop-transfer instructions preventing the transfer agent of the Company from effecting any actions in violation of this Letter Agreement.

The Placement Agent shall serve as the sole lock-up release agent for the Restriction Period. No release of any obligation under this Letter Agreement shall be effective without the prior written consent of the Placement Agent.

Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer the Securities provided that (1) the Company receives a signed lock-up letter agreement (in the form of this Letter Agreement) for the balance of the Restriction Period from each donee, trustee, distributee, or transferee, as the case may be, prior to such transfer (2) any such transfer shall not involve a disposition for value, (3) such transfer is not required to be reported with the Securities and Exchange Commission in accordance with the Exchange Act and no report of such transfer shall be made voluntarily during the Restricted Period, and (4) neither the undersigned nor any donee, trustee, distributee or transferee, as the case may be, otherwise voluntarily effects any public filing or report regarding such transfers during the Restricted Period, with respect to transfer:

- (i) as a bona fide gift or gifts;
- (ii) to any immediate family member or to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this Letter Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin);
- (iii) to any corporation, partnership, limited liability company, or other business entity all of the equity holders of which consist of the undersigned and/or the immediate family of the undersigned;
- (iv) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (a) to another corporation, partnership, limited liability company, trust or other business entity that is an Affiliate of the undersigned or (b) in the form of a distribution to limited partners, limited liability company members or stockholders of the undersigned;
- (v) if the undersigned is a trust, to the beneficiary of such trust;
- (vi) by operation of law, such as pursuant to a qualified domestic order, divorce settlement, divorce decree, separation agreement or other court order;
- (vii) to a charity or educational institution;
- (viii) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned; or
- (ix) sales of Common Stock made pursuant to and in accordance with a trading plan pursuant to Rule 10b5-1 under the Exchange Act existing on the date hereof.

In addition, notwithstanding the foregoing, this Letter Agreement shall not restrict (i) the delivery of shares of Common Stock to the undersigned upon exercise of any options or settlement of restricted stock units or other equity awards granted under any employee benefit plan of the Company, or the exercise of warrants; provided in each case that any shares of Common Stock or Securities acquired in connection with any such exercise or settlement will be subject to the restrictions set forth in this Letter Agreement, (ii) the withholding of shares of Common Stock to cover the payment of the exercise prices or the payment of taxes associated with the exercise or settlement of equity set forth in (i) above, or (iii) the issuance to the undersigned of awards by the Company under its equity incentive plans or the issuance of warrants.

Furthermore, the undersigned may enter into any new plan established in compliance with Rule 10b5-1 of the Exchange Act; provided that (i) such plan may only be established if no public announcement or filing with the Securities and Exchange Commission, or other applicable regulatory authority, is made in connection with the establishment of such plan during the Restriction Period and (ii) no sale of shares of Common Stock are made pursuant to such plan during the Restriction Period.

The undersigned acknowledges that the execution, delivery and performance of this Letter Agreement is a material inducement to the Placement Agent to complete the transactions contemplated by the Placement Agency Agreement and the Company shall be entitled to specific performance of the undersigned's obligations hereunder. The undersigned hereby represents that the undersigned has the power and authority to execute, deliver and perform this Letter Agreement, that the undersigned has received adequate consideration therefor and that the undersigned will indirectly benefit from the closing of the transactions contemplated by the Placement Agency Agreement.

The undersigned understands that, if the Agreement does not become effective, or if the Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock to be sold thereunder, the undersigned shall be released from all obligations under this Letter Agreement.

This Letter Agreement may not be amended or otherwise modified in any respect without the written consent of each of the Company and the undersigned. This Letter Agreement shall be construed and enforced in accordance with the laws of the State of New York without regard to the principles of conflict of laws. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. The undersigned agrees and understands that this Letter Agreement does not intend to create any relationship between the undersigned and the Placement Agent and that the Placement Agent is not entitled to cast any votes on the matters herein contemplated and that no issuance or sale of the Securities is created or intended by virtue of this Letter Agreement.

This Letter Agreement shall be binding on successors and assigns of the undersigned with respect to the Securities and any such successor or assign shall enter into a similar agreement for the benefit of the Placement Agent.

***** SIGNATURE PAGE FOLLOWS*****

This Letter Agreement may be executed in two or more counterparts, all of which when taken together may be considered one and the same agreement.

Signature

Print Name

Position in Company

Address for Notice:

By signing below, the Company agrees to enforce the restrictions on transfer set forth in this Letter Agreement.

HCW Biologics Inc.

By: _____
Name: Hing C. Wong, Ph.D.
Title: Chief Executive Officer

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 31, 2026 on the financial statements of HCW Biologics Inc. appearing in the 2025 Form 10-K of HCW Biologics, and to the reference to us under the heading “Experts” in the prospectus.

/s/ Crowe LLP

Crowe LLP

Indianapolis, Indiana
April 23, 2026

Fee Offset Sources																				
Rule 457(p)																				
Fee Offset Claims																				
Fee Offset Sources																				

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
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