

0001493152-24-042395S-1 Qualigen Therapeutics, Inc. 2024102420241024170627170627170627 0 0001493152-24-042395 S-1 12 20241024 20241024 Qualigen Therapeutics, Inc. 0001460702 2834 263474527 DE 1231 S-1 33 333-282820 241393400 2042 CORTE DEL NOGAL CARLSBAD CALIFORNIA CA 92011 (760) 918-9165 2042 CORTE DEL NOGAL CARLSBAD CALIFORNIA CA 92011 RITTER PHARMACEUTICALS INC 20090402 S-1 1 forms-1.htm As filed with the Securities and Exchange Commission on October 24, 2024. Registration No. UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM S-1 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933 Qualigen Therapeutics, Inc. (Exact Name of Registrant as Specified in Its Charter) Delaware 2834 26-3474527 (State or Other Jurisdiction of Incorporation or Organization) (Primary Standard Industrial Classification Code Number) (I.R.S. Employer Identification Number) Qualigen Therapeutics, Inc. 5857 Owens Avenue, Suite 300 Carlsbad, California 92008 (760) 452-8111 (Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices) Kevin A. Richardson II Interim Chief Executive Officer Qualigen Therapeutics, Inc. 5857 Owens Avenue, Suite 300 Carlsbad, California 92008 (760) 452-8111 (Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service) Copies to: Ross David Carmel, Esq. Claude A. Baum, Esq. Sichenzia Ross Ference Carmel LLP 1185 Avenue of the Americas 31st Floor New York, New York 10036 (212) 930 9700 David Danovitch, Esq. Joseph Segilia, Esq. Sullivan & Worcester LLP 1251 Avenue of the Americas, 19th Floor New York, New York 10020 (212) 660-3000 Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement. If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act: Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine. The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted. Preliminary Prospectus Subject to Completion Dated October 24, 2024. Up to 14,000,000 Shares of Common Stock Up to 14,000,000 Pre-Funded Warrants to Purchase up to 14,000,000 Shares of Common Stock Up to 14,000,000 Shares of Common Stock Underlying the Pre-Funded Warrants We are offering on a "reasonable best efforts" basis up to 14,000,000 shares of common stock, par value \$0.001 per share (the "common stock"). We are also offering pre-funded warrants (the "pre-funded warrants") to purchase up to an aggregate of shares of common stock to those purchasers whose purchase of shares of common stock in this offering would 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, in lieu of shares of common stock that would result in beneficial ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock. Each pre-funded warrant is exercisable for one share of our common stock, has an exercise price of \$0.001 per share and an indefinite term. For each pre-funded warrant that we sell, the number of shares of common stock we are offering will be reduced on a one-for-one basis. There is no established trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to list the pre-funded warrants on Nasdaq, any other national securities exchange or any other trading system. Without an active trading market, the liquidity of the pre-funded warrants may be limited. We have engaged Univest Securities, LLC (whom we refer to herein as the "Placement Agent") to act as our exclusive placement agent in connection with the securities offered by this prospectus. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities but has agreed to use its reasonable best efforts to arrange for the sale of the securities offered by this prospectus. We have agreed to pay the Placement Agent a fee based upon the aggregate gross proceeds raised in this offering. See "Plan of Distribution." The actual public offering price of the securities described in this prospectus will be determined by us, the Placement Agent and the investors in the offering, and may be at a discount to the current market price of our common stock. Therefore, the assumed public offering price used throughout this prospectus may not be indicative of the final offering price. 2 Pursuant to this prospectus, we are also offering the shares of common stock issuable upon the exercise of pre-funded warrants offered hereby. The shares of our common stock and pre-funded warrants being offered will be sold in a single closing (or in multiple closings with the same terms, but all of which closings would occur by no later than October 31, 2024). We will deliver all securities to be issued in connection with this offering delivery versus payment (DVP)/receipt versus payment (RVP) upon receipt of investor funds received by us. 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. Because there is no minimum number of securities or minimum aggregate amount of proceeds for this offering to close, we may sell fewer than all of the securities offered hereby, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. Because there is no escrow account and there is no minimum offering amount, investors could be in a position where they have invested in our company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Also, any proceeds from the sale of securities offered by

us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan. The offering of the shares of our common stock and pre-funded warrants will terminate no later than October 31, 2024 unless the offering is fully subscribed before that date or we decide to terminate the offering (which we may do at any time in our discretion) before that date; however, the shares of our common stock underlying the pre-funded warrants will be offered on a continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the “Securities Act”). Our common stock is listed on The Nasdaq Capital Market under the symbol “QLGN.” The last reported sales price of our common stock on The Nasdaq Capital Market on September 30, 2024 was \$0.1705 per share. We do not intend to list the pre-funded warrants on any national securities exchange or other nationally recognized trading system. An investment in our securities involves significant risks. You should carefully consider the risk factors beginning on page 14 of this prospectus before you make your decision to invest in our securities. Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense. Delivery of the shares of our common stock, pre-funded warrants is expected to be made on or about October 1, 2024. Sole Placement Agent Univest Securities, LLC The date of this prospectus is October 1, 2024. TABLE OF CONTENTS Page PROSPECTUS SUMMARY 5 RISK FACTORS 14 CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS 20 USE OF PROCEEDS 21 DIVIDEND POLICY 22 CAPITALIZATION 22 DILUTION 23 DESCRIPTION OF CAPITAL STOCK 25 DESCRIPTION OF SECURITIES WE ARE OFFERING 28 PLAN OF DISTRIBUTION 30 LEGAL MATTERS 32 EXPERTS 32 INCORPORATION OF CERTAIN INFORMATION BY REFERENCE 32 WHERE YOU CAN FIND MORE INFORMATION 33 Neither we nor the placement agent has authorized anyone to provide any information or to make any representations other than those contained in or incorporated by reference in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the placement agent 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 shares of common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in or incorporated by reference 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 shares of our shares of common stock. Our business, financial condition, results of operations and prospects may have changed since that date. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference filed with the Securities and Exchange Commission, or the SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in a document incorporated by reference is inconsistent with a statement in another document incorporated by reference having a later date, the statement in the document having the later date modifies or supersedes the earlier statement. No action is being taken in any jurisdiction outside the United States to permit a public offering of our shares of common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this public offering and the distribution of this prospectus applicable to that jurisdiction. Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third-parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry’s future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors.” These and other factors could cause our future performance to differ materially from our assumptions and estimates. See “Risk Factors” and “Information Regarding Forward-Looking Statements.” We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs. We may also provide a prospectus supplement or post-effective amendment to the registration statement to add information to, or update or change information contained in, this prospectus. You should read both this prospectus and any applicable prospectus supplement or post-effective amendment to the registration statement together with the additional information to which we refer you in the sections of this prospectus entitled “Where You Can Find More Information.” 4 PROSPECTUS SUMMARY This summary highlights information contained elsewhere in or incorporated by reference into this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should carefully read this entire prospectus and the documents and reports incorporated by reference into this prospectus before making an investment decision, including the information presented under the headings “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements and Industry Data and Market Information” in this prospectus and the historical financial statements and the notes thereto incorporated by reference into this prospectus. You should pay special attention to the information contained under the caption titled “Risk Factors” in this prospectus, in our most recent Annual Report on Form 10-K, in any subsequent Quarterly Reports on Form 10-Q and in our other reports filed from time to time with the Securities and Exchange Commission, which are incorporated by reference into this prospectus, before deciding to buy our securities. In this prospectus, the terms “Qualigen Therapeutics, Inc.,” “Company,” “we,” “our,” “ours” and “us” refer to Qualigen Therapeutics, Inc. and (as to time periods when it had one or more subsidiaries) its subsidiaries. Overview We are an early-clinical-stage therapeutics company focused on developing treatments for adult and pediatric cancer. Our business now consists of one early-clinical-stage therapeutic program (QN-302) and one preclinical therapeutic program (Pan-RAS). In addition, on April 11, 2024, we entered into a Co-Development Agreement (the “Co-Development Agreement”) with Marizyme, Inc. (“Marizyme”). The Co-Development Agreement contemplated that we would invest an aggregate of \$800,000 in Marizyme in April 2024 (the “Funding Payment”) and pay Marizyme a \$200,000 Exclusivity Fee (Provided, that if the parties so agree the total Funding Payment can be increased from time to time up to a total of \$1,500,000.) To

date our Funding Payment investment has been \$500,000, and in July 2024 we have advanced an additional \$1,250,000 pursuant to an 18% demand promissory note, and in August 2024 we amended the Co-Development Agreement to increase the total Funding Payment to up to a total of \$1,750,000. The Funding Payment is designed to provide financial support for commercialization of Marizyme's DuraGraft, a vascular conduit solution, which is indicated for adult patients undergoing coronary artery bypass grafting surgeries and is intended for the flushing and storage of the saphenous vein grafts used in coronary artery bypass grafting surgery. In return for the Funding Payment we will receive quarterly a 33% payment in the nature of royalties on any Net Sales (as defined with a meaning tantamount to gross profit on net sales) of DuraGraft, capped at double the amount of the Funding Payment cash provided. No such payments-in-the-nature-of-royalties would accrue until after DuraGraft has been launched in the United States and a cumulative total of \$500,000 of DuraGraft Net Sales have been made in the United States. The Exclusivity Fee entitled us to an exclusivity period until May 31, 2024 (the "Exclusivity Period") for purposes of proposing and outlining a broader strategic relationship with Marizyme with regard to Marizyme's DuraGraft business. The Exclusivity Period has ended, and we do not intend to expand the Exclusivity Period. Our lead program, QN-302, is an investigational small molecule G-quadruplexes (G4)-selective transcription inhibitor with strong binding affinity to G4s prevalent in cancer cells (such as pancreatic cancer). Such binding could, by stabilizing the G4s against DNA "unwinding," help inhibit cancer cell proliferation. QN-302 is currently undergoing a Phase 1a clinical trial at START Midwest in Grand Rapids, Michigan, and HonorHealth in Scottsdale, Arizona. Our Pan-RAS program, which is currently at the preclinical stage, consists of a family of RAS oncogene protein-protein interaction inhibitor small molecules believed to inhibit or block mutated RAS genes' proteins from binding to their effector proteins thereby leaving the proteins from the mutated RAS unable to cause further harm. In theory, such mechanism of action may be effective in the treatment of about one quarter of all cancers, including certain forms of pancreatic, colorectal, and lung cancers. The investigational compounds within our Pan-RAS portfolio are designed to suppress the interaction of endogenous RAS with c-RAF, upstream of the KRAS, HRAS and NRAS effector pathways. On May 22, 2020, we completed a "reverse recapitalization" transaction with Qualigen, Inc. (not to be confused with the Company); pursuant to which our merger subsidiary merged with and into Qualigen, Inc. with Qualigen, Inc. surviving as a wholly owned subsidiary of the Company. The Company, which had previously been known as Ritter Pharmaceuticals, Inc., was renamed Qualigen Therapeutics, Inc., and the former stockholders of Qualigen, Inc. acquired, via the recapitalization, a substantial majority of the shares of the Company. Ritter/Qualigen Therapeutics common stock, which was previously traded on the Nasdaq Capital Market under the ticker symbol "RTTR," commenced trading on Nasdaq, on a post-reverse-stock-split adjusted basis, under the ticker symbol "QLGN" on May 26, 2020. We are no longer pursuing the gastrointestinal disease treatment business on which Ritter Pharmaceuticals, Inc. had focused before the reverse recapitalization transaction. On July 20, 2023, we sold our Qualigen, Inc. subsidiary, which contained our former FastPack® diagnostics business to Chembio Diagnostics, Inc., an American subsidiary of French diagnostics provider Biosynex, S.A. The aggregate net purchase price for Qualigen, Inc. was \$5.4 million in cash, of which \$450,000 was being held in escrow to satisfy certain Company indemnification obligations until January 20, 2025. On June 4, 2024, the \$450,000 escrow account was settled early and liquidated by mutual agreement of the Company and the buyer (Chembio). In exchange for the early settlement, \$350,000 was paid to the Company, and \$100,000 was paid to Chembio. This settlement resulted in a \$100,000 loss from discontinued operations in the second quarter of 2024. We own a minority interest in NanoSynex, Ltd. ("NanoSynex"), a privately-held microbiologics diagnostic company domiciled in Israel. NanoSynex's technology is for Antimicrobial Susceptibility Testing that aims to enable better targeting of antibiotics for their most suitable uses to ultimately result in faster and more efficacious treatment, hence reducing hospitals' mortality and morbidity rates. On May 26, 2022, we acquired a 52.8% interest in NanoSynex from our related party Alpha Capital Anstalt ("Alpha") and NanoSynex, and entered into a Master Agreement for the Operational and Technological Funding of NanoSynex with NanoSynex (the "NanoSynex Funding Agreement"). On July 20, 2023, we entered into an Amendment and Settlement Agreement with NanoSynex (the "NanoSynex Amendment"), pursuant to which we agreed to, in exchange for eliminating all future NanoSynex Funding Agreement obligations for us to invest further cash in NanoSynex (except for obligations to lend NanoSynex \$560,000 on or before November 30, 2023, and \$670,000 on or before March 31, 2024), surrender 281,000 Series B Preferred Shares of NanoSynex held by us, resulting in our ownership in NanoSynex being reduced from approximately 52.8% to approximately 49.97% of the voting equity of NanoSynex; in addition, we agreed to surrender approximately \$3.0 million of promissory notes which NanoSynex had issued to us under the Funding Agreement. On November 22, 2023 we further agreed to eliminate our obligations to lend NanoSynex \$560,000 on or before November 30, 2023, and \$670,000 on or before March 31, 2024, by instead surrendering shares of Series A-1 Preferred Stock of NanoSynex in an amount that reduced our ownership in NanoSynex voting equity from approximately 49.97% to 39.90%. 5 September 2024 Public Offering On September 5, 2024, the Company, entered into a placement agency agreement (the "September Placement Agent Agreement") with Univest Securities, LLC ("Univest"), to sell the September Shares (as defined below) to certain institutional investors that were included in a public offering (the "September Offering") of 14,724,058 shares of common stock, par value \$0.001 per share of common stock (each a "September Share," and collectively, the "September Shares") at public offering price of \$0.13 per September Share and pre-funded warrants to purchase up to 11,972,754 Shares at a price of \$0.129 per share with an exercise price of \$0.001 per share (the "September Pre-Funded Warrants"). The September Pre-Funded Warrants are exercisable upon issuance and will remain exercisable until all the September Pre-Funded Warrants are exercised in full. The closing of the September Offering occurred on September 6, 2024, and the Company received aggregate gross proceeds of \$3.47 million, before payment of placement agent fees and expenses and other transaction costs. At the closing of the September Offering, the Company also issued to Univest, the exclusive placement agent in the September Offering, a warrant to purchase 800,904 Shares (the "September Placement Agent Warrant"), pursuant to the September Placement Agent Agreement (the "September Placement Agent Warrant"). The September Placement Agent Warrant has a term of five years commencing from the date of sales in the September Offering, is exercisable after 180 days after issuance, and has an exercise price of \$0.156 per share of common stock. The Company paid Univest a cash fee equal to 3% of the gross proceeds received in the September Offering and certain other amounts for reimbursement of expenses incurred by Univest in connection with the September Offering. IR Agency LLC Consulting Agreement We entered into a consulting agreement (the "IR Agency Consulting Agreement") with IR Agency, LLC ("IR Agency"), a provider of investor relations-related services on October 9, 2024. Pursuant to the IR Agency Consulting Agreement, we have engaged IR Agency, on a non-exclusive basis, to prepare marketing and advertising materials. As consideration for its performance under the IR Agency Consulting Agreement, we will pay IR Agency a fee of \$800,000 upon the Company raising \$1.8 million or more in an equity

financing over the next thirty (30) days. IR Agency is not a registered broker-dealer or investment advisor and will not engage in any activities on behalf of us that would require it to be registered as a broker-dealer or investment advisor. The IR Agency Consulting Agreement will have a term of one (1) month and may be terminated by written notice, with or without cause, by us at any time. During the term of the IR Agency Consulting Agreement, IR Agency acknowledges that in order to prepare appropriate advertising in a timely manner it may be made aware of price sensitive or confidential information that has not been publicly disclosed yet. IR Agency confirms that it is fully aware of its obligations in relation to such information and will ensure that the confidentiality of such information is maintained at all times and that it, and its employees and contractors, are all fully aware of and comply with, all appropriate securities laws and regulations in relation to insider trading and related matters. The IR Agency Consulting Agreement is governed by the laws of the State of New Jersey, and will go into effect on October 15, 2024 if the Company raises \$1.8 million or more in an equity financing over the next thirty (30) days.

Product Pipeline

QN-302 We exclusively licensed the global rights to the G-Quadruplex (a selective transcription inhibitor platform from University College London (UCL) in January 2022. The licensed technology comprises lead compound QN-302 (formerly known as SOP1812) and back-up compounds that target regulatory regions of cancer genes that down-regulate gene expression in multiple cancer pathways. Developed by Dr. Stephen Neidle and his group at UCL, the G4 binding concept is derived from nucleic acid research conducted over more than over 30 years, including research on G4s, which are higher order DNA and RNA structures formed by sequences containing guanine-rich repeats. G4s are overrepresented in telomeres (a region of repetitive DNA sequences at the end of a chromosome) as well as promoter sequences and untranslated regions of many oncogenes. Their prevalence is therefore significantly greater in cancer cells compared to normal human cells. G4-selective small molecules such as QN-302 and backup compounds target the regulatory regions of cancer genes, which have a high prevalence of enriched G4s. Stable G4-QN-302 complexes can be impediments to replication, transcription or translation of those cancer genes containing G4s, and the drugs' binding to G4s are believed to stabilize the G4s against possible "unwinding." G4 binders like QN-302 could be efficacious in a variety of cancer types with a high prevalence of G4s. We believe that QN-302 has the potential to demonstrate superior efficacy and activity against pancreatic ductal adenocarcinoma (PDAC), which represents 98% of pancreatic cancers. Pancreatic cancer is the tenth most common cancer in men and the seventh most common in women, but it is the fourth leading cause of cancer deaths in men and the third leading cause in women; it accounts for about 3% of all cancers in the United States but is responsible for about 8% of all cancer-related deaths. It has one of the lowest rates of survival of all cancer types.

6 In-vitro and in-vivo studies have shown that G4 stabilization by QN-302 resulted in inhibition of target gene expression and cessation of cell growth in various cancers, including PDAC. In in-vitro studies, QN-302 was potent in inhibiting the growth of several PDAC cell lines at low nanomolar concentrations. Similarly, in in-vivo studies, QN-302 showed a longer survival duration in a KPC genetic mouse model for pancreatic cancer than gemcitabine (the current standard of care for PDAC) has historically shown. Additional preclinical in-vivo studies suggest activity in gemcitabine-resistant PDAC. Data further demonstrated that QN-302 had significant anti-tumor activity in three patient-derived PDAC xenograft models. Early safety indicators in pancreatic cancer mouse in-vivo models suggest no significant adverse toxic effects at proposed therapeutic doses. On January 9, 2023, the U.S. Food and Drug Administration (FDA) granted Orphan Drug Designation (ODD) to QN-302 for the indication of pancreatic cancer. ODD provides advantages to pharmaceutical companies that are developing investigational drugs or biological products that show promise in treating rare diseases or conditions that affect fewer than 200,000 people in the United States, including seven-year marketing exclusivity and eligibility to receive regulatory support and guidance from the FDA in the design of an overall drug development plan. There are also economic advantages to receiving ODD, including a 25% federal tax credit for expenses incurred in conducting clinical research on the orphan designated product within the United States. Tax credits may be applied to the prior year or applied to up to 20 years of future taxes. ODD recipients may also have their Prescription Drug User Fee Act (PDUFA) application fees waived, a potential savings of around \$3.2 million (as of fiscal year 2023) for applications requiring covered clinical data, and may qualify to compete for research grants from the Office of Orphan Products Development that support clinical studies. On August 1, 2023 we announced that the FDA had cleared our investigational new drug (IND) application for QN-302, and on November 1, 2023 the first patient in our Phase 1a clinical trial for QN-302 was dosed at START Midwest in Grand Rapids, Michigan. We will require additional cash resources to be able to continue and complete this Phase 1a clinical trial.

Pan-RAS (formerly referred to as RAS or RAS-F) In July 2020 we entered into an exclusive worldwide in-license agreement with the University of Louisville Research Foundation, Inc. (UofL) for the intellectual property covering the "RAS" family of pan-RAS inhibitor small molecule drug candidates, which are believed to work by blocking RAS mutations directly, thereby inhibiting tumor formation (especially in pancreatic, colorectal and lung cancers). Pursuant to the license agreement, we will seek to identify and develop a lead drug candidate from the compound family and, upon commercialization, will pay UofL royalties in the low-to-mid-single-digit percentages on net sales of Pan-RAS inhibitor licensed products. The license agreement with UofL for Pan-RAS was amended in March 2021 and June 2023. RAS is the most common oncogene in human cancer. Activating mutations in one of the three human RAS gene isoforms (KRAS, HRAS or NRAS) are present in about one-fourth to one-third of all cancers. For example, mutant KRAS is found in 98% of pancreatic ductal adenocarcinomas, 52% of colon cancers, and 32% of lung adenocarcinomas. For these three cancer types, cancers with mutant KRAS are diagnosed in more than 170,000 people each year in the United States and cause more than 120,000 deaths. Drugs that target signaling downstream of RAS are available; however, such drugs have shown disappointing clinical durability because RAS is a "hub" that activates multiple effectors, so drugs that block a single pathway downstream may not account for the many other activated pathways. We also had a sponsored research agreement with UofL for Pan-RAS research; that agreement expired in December 2023.

7 On February 15, 2024, we entered into a License and Sublicense Agreement with Pan-RAS Holdings, Inc., a New York corporation (Pan-RAS Holdings), which contemplated an exclusive out-license of our Pan-RAS drug development program, including our rights under the UofL license agreement, Pan-RAS Holdings. Although the License and Sublicense Agreement called for a closing by March 16, 2024, the License and Sublicense Agreement was in essence structured as a 30-day option in favor of Pan-RAS Holdings. At the contemplated closing, Pan-RAS Holdings would have paid us an upfront fee of \$1,000,000 in cash. In addition, Pan-RAS Holdings would have become responsible to pay on our behalf our in-license royalty obligations to UofL, as and when required. Finally, if the contemplated closing had occurred, Pan-RAS Holdings would have been required to pay to us for our own account, on a semiannual basis, royalties equal to 1.0% of net sales of any RAS products. We would have owed certain amounts to UofL under our in-license agreement from them, if, as and when we received any Non-Royalty Sublicensing Income from Pan-RAS Holdings. Pan-RAS Holdings did not effectuate the closing by March 16, 2024, and we and they voluntarily

terminated the License and Sublicense Agreement effective as of March 16, 2024. **Previous Programs** We have discontinued all of our efforts as to the following programs, and we do not plan to resume them:

1. QN-247 (formerly referred to as ALAN or AS1411-GNP) – an oligonucleotide aptamer-based, nucleolin-inhibiting anticancer drug candidate, consisting of QN-165 conjugated with gold nanoparticles.
2. QN-165 (formerly referred to as AS1411) – an oligonucleotide aptamer-based drug candidate for the potential broad-spectrum treatment of infectious diseases such as COVID-19.
3. Selective Target Antigen Removal System (STARS) – a therapeutic blood-filtering device product concept, which would be designed to remove circulating tumor cells, viruses, inflammation factors and immune checkpoints.

Research and Development For research and development of our drug candidates, we have historically leveraged the scientific and technical resources and laboratory facilities of UofL and UCL, through technology licensing, sponsored research, and other consulting agreements. We have engaged contract research organizations (“CROs”) and clinical sites for the Phase 1a clinical trial of QN-302. We intend to focus our internal research and development on oversight of these CROs. We currently have no internal research and development facilities.

Regulatory Matters We have obtained FDA clearance/approval for our QN-302 Phase 1a clinical trial. We have not obtained FDA or other regulatory approval for any other drug candidate.

United States’ FDA Drug Approval Process The research, development, testing, and manufacture of product candidates are extensively regulated by governmental authorities in the United States and other countries. In the United States, the FDA regulates drugs under the Food, Drug and Cosmetics Act and its implementing regulations. The steps required to be completed before a drug may be marketed in the United States include, among others:

- preclinical laboratory tests, animal studies, and formulation studies, all performed in accordance with the FDA’s Good Laboratory Practice (“GLP”) regulations;
- submission to the FDA of an IND application for human clinical testing, which must become effective before human clinical trials may begin and for which progress reports must be submitted annually to the FDA;
- approval by an independent institutional review board (“IRB”) or Ethics Committee (“EC”) at each clinical trial site before each trial may be initiated;
- adequate and well-controlled human clinical trials, conducted in accordance with applicable IND regulations, Good Clinical Practices (“GCP”), and other clinical trial related regulations, to establish the safety and efficacy of the drug for each proposed indication to the FDA’s satisfaction;
- submission to the FDA of a New Drug Application (“NDA”) and payment of user fees for FDA review of the NDA (unless a fee waiver applies);
- satisfactory completion of an FDA pre-approval inspection of one or more clinical trial site(s) at which the drug was studied in a clinical trial(s) and/or of us as a clinical trial sponsor to assess compliance with GCP regulations;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the drug is produced to assess compliance with current GMPs regulations;
- agreement with the FDA on the final labeling for the product and the design and implementation of any required Risk Evaluation and Mitigation Strategy; and
- FDA review and approval of the NDA, including satisfactory completion of an FDA advisory committee review, if applicable, based on a determination that the drug is safe and effective for the proposed indication(s).

Preclinical tests include laboratory evaluation of product chemistry, toxicity, and formulation, as well as animal studies. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements, including GLP regulations. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND application, which must become effective before human clinical trials may begin. We cannot be certain that submission of an IND application will result in the FDA allowing clinical trials to begin.

Clinical trials necessary for product approval are typically conducted in three sequential phases, but the phases may overlap or be combined. The study protocol and informed consent information for study subjects in clinical trials must also be approved by an IRB for each institution where the trials will be conducted, and each IRB must monitor the study until completion. Study subjects must provide informed consent and sign an informed consent form before participating in a clinical trial. Clinical testing also must satisfy the extensive GCP regulations for, among other things, informed consent and privacy of individually identifiable information.

- **Phase 1** Phase 1 clinical trials involve initial introduction of the study drug in a limited population of healthy human volunteers or patients with the target disease or condition. These studies are typically designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the study drug in humans, evaluate the side effects associated with increasing doses, and, if possible, to gain early evidence of effectiveness.
- **Phase 2** Phase 2 clinical trials typically involve administration of the study drug to a limited patient population with a specified disease or condition to evaluate the preliminary efficacy, optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information before beginning larger and more expensive Phase 3 clinical trials.
- **Phase 3** Phase 3 clinical trials typically involve administration of the study drug to an expanded patient population to further evaluate dosage, to provide substantial evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the study drug and to provide an adequate basis for product approval. Generally, adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of an NDA.

9 The FDA has various programs, including fast track designation, breakthrough therapy designation, priority review and accelerated approval, which are intended to expedite or simplify the process for the development, and the FDA’s review of drugs (e.g., approving an NDA on the basis of surrogate endpoints subject to post-approval trials). Generally, drugs that may be eligible for one or more of these programs are those intended to treat serious or life-threatening diseases or conditions, those with the potential to address unmet medical needs for those disease or conditions, and/or those that provide a meaningful benefit over existing treatments. For example, a sponsor may be granted FDA designation of a drug candidate as a “breakthrough therapy” if the drug candidate is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. If a drug is designated as breakthrough therapy, the FDA will take actions to help expedite the development and review of such drug. Moreover, if a sponsor submits an NDA for a product intended to treat certain rare pediatric or tropical diseases or for use as a medical countermeasure for a material threat, and that meets other eligibility criteria, upon approval such sponsor may be granted a priority review voucher that can be used for a subsequent NDA. From time to time, we anticipate applying for such programs where we believe we meet the applicable FDA criteria. A company cannot be sure that any of its drugs will qualify for any of these programs, or even if a drug does qualify, that the review time will be reduced.

The results of the preclinical studies and of the clinical studies, together with other detailed information, including information on the manufacture and composition of the drug, are submitted to the FDA in the form of an NDA requesting approval to

market the product for one or more proposed indications. The testing and approval process requires substantial time, effort and financial resources. Unless the applicant qualifies for an exemption, the filing of an NDA typically must be accompanied by a substantial "user fee" payment to the FDA. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the product in the proposed patient population to the satisfaction of the FDA. After an NDA is accepted for filing, the FDA substantively reviews the application and may deem it to be inadequate, and companies cannot be sure that any approval will be granted on a timely basis, if at all. The FDA may also refer the application to an appropriate advisory committee, typically a panel of clinicians, for review, evaluation and a recommendation as to whether the application should be approved, but is not bound by the recommendations of the advisory committee. • Before approving an NDA, the FDA usually will inspect the facility or the facilities at which the drug is manufactured and determine whether the manufacturing and production and testing facilities are in compliance with cGMP regulations. • Once issued, the FDA may withdraw product approval if, among other things, ongoing regulatory requirements are not met, certain defects exist in the NDA, or safety or efficacy problems occur after the product reaches the market. • Intellectual Property • Information regarding our (in-licensed) issued patents and pending patent applications, as of December 31, 2023, is as follows (excluding patents and pending patent applications which pertain to programs which we have discontinued). As of that date we did not have any directly-owned issued patents and pending patent applications. • Subject Matter • Issued • Pending • Geographic Scope • Patent Term In-Licensed Patents • • • • • • • • University College London (UCL) • • • • • • • • QN-302 • 3 • 10 • U.S., Europe, Australia, Canada, China, Hong Kong, India, Japan, Korea, Russia • 2030-2040 University of Louisville • • • • • • • • Pan-RAS • 0 • 12 • U.S., Europe, Australia, Canada, China, Hong Kong, India, Israel, Japan, Korea, Mexico, Russia, South Africa • 2039* TOTAL • 3 • 22 • • • • • • *Anticipated patent term • 10 • • Human Capital Management • As of September 30, 2024, we had one employee, which was full-time. None of our employees is represented by a labor union or covered by a collective bargaining agreement. • Diversity & Inclusion. With respect to our employees overall, 100% are women and none are people of color. • Going Concern Qualification • Our working capital deficiency, stockholders'™ deficit, and recurring losses from operations raise substantial doubt about our ability to continue as a going concern. As a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements for the year ended December 31, 2023 with respect to this uncertainty. Our ability to continue as a going concern will require us to obtain additional funding. • Corporate Information • Ritter Pharmaceuticals, Inc. (our predecessor) was formed as a Nevada limited liability company on March 29, 2004 under the name Ritter Natural Sciences, LLC. In September 2008, this company converted into a Delaware corporation under the name Ritter Pharmaceuticals, Inc. On May 22, 2020, upon completing the "reverse recapitalization" transaction with Qualigen, Inc., Ritter Pharmaceuticals, Inc. was renamed Qualigen Therapeutics, Inc. and Qualigen, Inc. became a wholly-owned subsidiary of the Company. On July 20, 2023 we sold Qualigen, Inc. to Chembio Diagnostics, Inc., an American subsidiary of French diagnostics provider Biosynex S.A. • Our principal executive offices are located at 5857 Owens Avenue, Suite 300, Carlsbad, CA 92008. Our telephone number is (760) 452-8111. Our corporate website address is www.qlgntx.com. Our website and the information contained on, or that can be accessed through, our website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus. You should not rely on our website or any such information in making your decision whether to purchase our securities. • 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. • 11 • • The Offering • Common stock we are offering Up to 14,000,000 shares of common stock together, or (in the alternative for applicable purchasers, pre-funded warrants to purchase up to 14,000,000 shares of common stock). The shares of common stock being sold with the pre-funded warrants must initially be purchased together as units in this offering but are immediately separable and will be issued separately in this offering. Each pre-funded warrant has an exercise price of \$0.001 per share, is immediately exercisable, and will be exercisable until exercised in full. We are also registering the issuance of shares of our common stock issuable upon exercise of the pre-funded warrants. • • Pre-funded warrants we are offering We are offering to those purchasers whose purchase of common stock in this offering would otherwise result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock immediately following the closing of this offering, in lieu of purchasing common stock, pre-funded warrants to purchase up to an aggregate of 14,000,000 shares of our common stock. Each pre-funded warrant is exercisable for one share of our common stock. The purchase price of each pre-funded warrant is equal to the price at which a share of common stock is being sold to the public in this offering, minus \$0.001. We are also registering the issuance of up to 14,000,000 shares of our common stock issuable upon exercise of the pre-funded warrants. For each pre-funded warrant that we sell, the number of shares of common stock that we are offering will be reduced on a one-for-one basis. • • Common stock outstanding immediately before this offering 27,414,185 shares • • Public offering price \$0.13 per share of common stock or, in the alternative, \$0.199 per pre-funded warrant. • • Common stock outstanding immediately after this offering Up to 14,000,000 shares, assuming no exercise of the pre-funded warrants issued in this offering. • • Use of proceeds We estimate that the net proceeds from this offering will be approximately up to \$1.8 million (based on an assumed public offering price of \$0.13 per share), after deducting the Placement Agent fee and estimated offering expenses payable by us, and assuming no sale of any pre-funded warrants in this offering. • We intend to use the net proceeds from the sale of the securities offered by us pursuant to this prospectus for our operations and for other general corporate purposes, which may include, but are not limited to: i) an \$800,000 payment to IR Agency LLC for marketing expenditures (the "IR Agency Payment"); ii) general working capital; iii) advancement of our clinical trial and preclinical studies; iv) possible future acquisitions. • In the event that the gross proceeds from the sale of the securities offered are less than \$1,800,000, the IR Agency Payment shall not be due pursuant to the IR Agency Consulting Agreement. All net proceeds shall be allocated toward general working capital and the other purposes mentioned above. See the section titled "Use of Proceeds" on page 21 of this prospectus. • Risk Factors See "Risk Factors" and other information appearing elsewhere in this prospectus and in the documents incorporated by reference for a discussion of factors you should carefully consider before deciding whether to invest in our securities. • • Lock-up We have agreed, subject to certain exceptions and without the approval of the Placement Agent and purchasers of our securities in this offering, not to (1) issue, enter into any agreement to issue or announce the issuance or proposed issuance of, any shares of common stock (or securities convertible into or exercisable for common stock) or file any registration statement, including any amendments or supplements for a period of 180 days following the closing of the offering of the shares and (2) enter into a variable rate transaction for a period of 180 days following the closing of this offering. Our directors and officers have agreed not to offer, sell, pledge or otherwise

transfer or dispose of any of our securities for 180 days following the closing of the offering of the shares. See “Plan of Distribution” for more information. The Nasdaq Capital Market listing symbol “QLGN.” There is no established trading market for the pre-funded warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the pre-funded warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the pre-funded warrants will be limited.

12 The number of shares of common stock to be outstanding after this offering is based on 9,613,899 shares of common stock outstanding on June 30, 2024 plus 17,800,286 shares issued from then through September 30, 2024, does not give effect to the shares of common stock issuable upon exercise of the pre-funded warrants issued in this offering and excludes:

- 337,286 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024, at a weighted average exercise price of \$38.92 per share;
- 4,741,957 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024, at a weighted average exercise price of \$0.48 per share;
- 4,218,978 shares of common stock issuable under the 2022 Debenture, the 2024 Alpha Debenture and the 2024 Chen Debenture (as defined below) as of June 30, 2024, based on the conversion price of \$0.26 per share as of June 30, 2024;
- 418,429 shares of common stock available for future issuance under the 2020 Plan (as defined below) as of June 30, 2024; and
- 100,000 shares of common stock issuable under the ESPP (as defined below), which has been temporarily suspended.

Unless otherwise indicated, all information in this prospectus gives effect to the 1-for-10 reverse stock split effectuated on November 23, 2022.

13 RISK FACTORS Investing in our common stock and pre-funded warrants involves a high degree of risk. Before investing in our common stock and pre-funded warrants, you should consider carefully the risks and uncertainties discussed under “Risk Factors” in our latest annual report on Form 10-K and subsequent quarterly reports on Form 10-Q and current reports on Form 8-K, which are incorporated by reference herein in their entirety. You should carefully consider each of the following risks, together with all other information set forth in this prospectus and incorporated by reference herein, including our consolidated financial statements and the related notes, before deciding to buy our common stock and pre-funded warrants. If any of the following risks actually occurs, our business could be harmed. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment. This prospectus and the documents incorporated by reference herein also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus. See “Cautionary Note Regarding Forward-Looking Statements” for information relating to these forward-looking statements.

Risks Related to this Offering The price of our common stock may be highly volatile. The market price of our securities, like that of many other research and development public pharmaceutical and biotechnology companies, has been highly volatile and the price of our common stock may be volatile in the future due to a wide variety of factors, including:

- announcements by us or others of results of pre-clinical testing and clinical trials;
- our quarterly operating results and performance;
- developments or disputes concerning patents or other proprietary rights;
- mergers or acquisitions or disposition;
- litigation and government proceedings;
- adverse legislation or regulatory matters;
- changes in government regulations;
- our available working capital;
- failure of our common stock to continue to be listed or quoted on a national exchange or market system, such as Nasdaq or the New York Stock Exchange;
- economic and other external factors; and
- general market conditions.

Since January 1, 2024, the closing stock price of our common stock has fluctuated between a high of \$0.58 per share to a low of \$0.16 per share. On September 30, 2024, the last reported sales price of our common stock on The Nasdaq Capital Market was \$0.1705 per share. The fluctuation in the price of our common stock has sometimes been unrelated or disproportionate to our operating performance. In addition, potential dilutive effects of future sales of shares of common stock, options and warrants by us, as well as the potential sale of common stock by the holders of options, warrants and the Debenture could have an adverse effect on the market price of our shares. Any failure to develop or maintain effective internal controls over financial reporting or difficulties encountered in implementing or improving our internal controls over financial reporting could harm our operating results and prevent us from meeting our reporting obligations. Effective internal controls, particularly those related to financial reporting, are necessary for us to produce reliable financial reports. If we cannot provide reliable financial reports, our business and operating results could be harmed, investors could lose confidence in our reported financial information, and the trading price of our common stock could drop significantly. In addition, investors relying upon this misinformation could make an uninformed investment decision, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities or to stockholder class action securities litigation.

In connection with the audit of our financial statements as of and for the year ended December 31, 2022, our management determined that the material weakness identified in connection with the 2021 audit had not been fully remediated and resulted in adjustments to the accounting treatment related to convertible debt, the business combination and goodwill impairment during the 2022 audit, which resulted in the late filing of the 2022 Annual Report. In connection with the audit of our financial statements as of and for the year ended December 31, 2023, our management identified material weaknesses in our internal control over financial reporting related to limited accounting personnel and resources resulting in lack of segregation of duties, and to the fact that we have not designed and implemented effective Information Technology General Controls related to access controls to financing accounting systems. We intend to continue to take steps to enhance our internal controls, including implementing additional internal procedures and utilizing well-established external consulting resources with experience and expertise in U.S. GAAP and public company accounting and reporting requirements. If we are unable to remediate the material weaknesses and achieve and maintain effective internal control over financial reporting and effective disclosure controls, our business could be adversely affected. Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our common stock, which would limit the ability of broker-dealers to sell our securities and the ability of shareholders to sell their securities in the secondary market and negatively impact our ability to raise capital. If we fail to satisfy the continued listing requirements of Nasdaq, Nasdaq may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so.

14 We have in the past been in noncompliance with other Nasdaq’s continued listing rules. For example, on November 23, 2022, we effected a 1-for-10 reverse stock split of our outstanding common stock to cure our noncompliance, for a period of more than 30 consecutive business days, with Nasdaq Listing Rule 5550(a)(2), which requires listed securities to maintain a minimum bid price of \$1.00 per share. In addition, on April 20, 2023, we received a notification letter from the Listing Qualifications Department of Nasdaq indicating that, as a result of our delay in filing our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, we were not in compliance with the timely filing requirements for continued listing under Nasdaq Listing Rule 5250(c)(1). We

regained compliance with this listing rule by filing our Annual Report on Form 10-K on May 2, 2023. Â On May 23, 2024, the Company received written notice (the "Delist Notice") from Nasdaq indicating the Company's continued non-compliance with the minimum bid price requirement, pursuant to Listing Rule 5550(b)(2). Â On November 20, 2023, the Company received a letter (the "Bid Price Deficiency Notice") from Nasdaq notifying the Company that, because the closing bid price for its common stock has been below \$1.00 per share for 30 consecutive business days, it no longer complies with the minimum bid price requirement for continued listing on The Nasdaq Capital Market. Nasdaq Listing Rule 5550(a)(2) requires listed securities to maintain a minimum bid price of \$1.00 per share (the "Minimum Bid Price Requirement"), and Listing Rule 5810(c)(3)(A) provides that a failure to meet the Minimum Bid Price Requirement exists if the deficiency continues for a period of 30 consecutive business days. Â Additionally, the Delist Notice states that since the Company had not yet filed its Form 10-Q for the period ended March 31, 2024, it no longer complied with Listing Rule 5250(c)(1), and that this matter serves as a separate and additional basis for delisting the Company's securities from The Nasdaq Stock Market. We regained compliance with this listing rule by filing our Quarterly Report on Form 10-Q on July 2, 2024. Â Further, on November 21, 2023, the Company also received a letter from Nasdaq notifying the Company that it did not comply with the \$2,500,000 minimum stockholders' equity requirement, as set forth in Listing Rule 5550(a)(2) (the "Equity Rule"). On January 12, 2024, Nasdaq granted the Company an extension of time until May 21, 2024, to regain compliance with the Equity Rule. The Company has not done so to date. As such, the Delist Notice states that this matter also serves as a separate and additional basis for delisting the Company's securities from The Nasdaq Stock Market. Â On July 16, 2024, the Company attended a hearing before the Nasdaq Hearings Panel (the "Panel") regarding the Company's potential delisting from The Nasdaq Stock Market due to non-compliance with the Bid Price Rule and the shareholder equity requirement pursuant to the Equity Rule. On August 2, 2024, the Company received the Panel decision which granted the Company until October 31, 2024 to regain compliance with the Bid Price Rule and the Equity Rule. If the Company is unable to regain compliance with the listing standards of the Nasdaq Capital Market by October 31, 2024, the Company's securities may be delisted from The Nasdaq Stock Market. Â On September 11, 2024, the Company received a notice from Nasdaq indicating that the Panel has granted an extension for the continued listing of the Company, subject to the Company evidencing compliance with all applicable criteria for continued listing on The Nasdaq Capital Market by November 19, 2024. Â 15 Â Â Losing our Nasdaq listing would seriously harm us, by undermining our ability to raise capital and decreasing our attractiveness to possible merger partners. Also, if our common stock were to be delisted from Nasdaq, it would have a material negative impact on the actual and potential liquidity of our securities, as well as a material negative impact on our ability to raise future capital. If, for any reason, Nasdaq were to delist our common stock from trading on its exchange and we were unable to obtain listing on another national securities exchange or take action to restore our compliance with the Nasdaq continued listing requirements, a reduction in some or all of the following may occur, each of which could have a material adverse effect on our stockholders: Â Â — the liquidity of our common stock; Â — the market price of our common stock; Â — our ability to obtain financing for the continuation of our operations; Â — the number of institutional and general investors that will consider investing in our securities; Â — the number of market makers in our common stock; Â — the availability of information concerning the trading prices and volume of our common stock; and Â — the number of broker-dealers willing to execute trades in shares of our common stock. Â Further, we would likely become a "penny stock", which would make trading of our common stock much more difficult. Â Investors will experience immediate and substantial dilution as a result of this offering and may suffer substantial dilution related to issued stock warrants and options. Â Investors will incur immediate and substantial dilution as a result of this offering. After giving effect to this offering for aggregate gross proceeds of up to \$1.8 million based on an assumed public offering price of \$0.13 per share, assuming no sale of pre-funded warrants in this offering, and after deducting estimated offering expenses payable by us, investors in this offering can expect immediate dilution of \$0.12 per share of common stock. See "Dilution." Â As of June 30, 2024, we had outstanding options to purchase 337,286 shares of common stock, at a weighted average exercise price of \$38.92, and warrants to purchase 4,741,957 shares of common stock, at a weighted average exercise price of \$0.48. Â In addition, the 8% Senior Convertible Debenture which we issued on December 21, 2022 to Alpha Capital Anstalt ("Alpha") in the aggregate principal amount of \$3,300,000 for a purchase price of \$3,000,000 (the "2022 Debenture") is convertible, at any time, and from time to time, at the holder's option, into shares of our common stock, subject to the terms and conditions described in the 2022 Debenture, and, subject to the terms and conditions described in the 2022 Debenture, we may elect to pay all or a portion of the \$110,000 Monthly Redemption Amount (as defined in the 2022 Debenture) and/or interest required by the 2022 Debenture in shares of our common stock. On July 13, 2023, we obtained stockholder approval, for purposes of complying with Nasdaq Listing Rule 5635(d), the issuance to Alpha of more than 20% of our issued and outstanding common stock pursuant to the terms and conditions of (a) the 2022 Debenture, and (b) our common stock purchase warrant dated December 22, 2022 issued to Alpha. After the first two monthly redemptions, we may elect to pay all or a portion of a Monthly Redemption Amount in shares of our common stock, based on a conversion price equal to the lesser of (i) the then conversion price of the 2022 Debenture and (ii) 85% of the average of the VWAPs (as defined in the 2022 Debenture) for the five consecutive trading days ending on the trading day that is immediately before the applicable Monthly Redemption Date (such average, the "VWAP Price"), subject to the Equity Conditions (as defined in the 2022 Debenture) having been satisfied. The remaining principal balance of \$394,921 as of June 30, 2024 has been fully converted into 1,518,931 shares of common stock at \$0.26 per share, and there were no additional shares of common stock issuable under the 2022 Debenture. Â 16 Â Â In addition, on April 12, 2024, we issued to Yi Hua Chen ("Chen") an 8% Convertible Debenture (the "2024 Chen Debenture") in the aggregate principal amount of \$1,100,000 for a purchase price of \$1,000,000. The 2024 Chen Debenture matures no later than December 31, 2024, and is convertible, at any time, and from time to time, at Chen's option, into shares of our common stock, at \$0.6111 per share, subject to adjustment as described in the 2024 Chen Debenture. The 2024 Chen Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, which interest is payable at maturity. Additionally, we issued a 5-year common stock purchase warrant (the "2024 Chen Warrant") to Chen to purchase up to 1,800,032 shares of our common stock at a price of \$0.26 per share, subject to adjustment as described in the 2024 Chen Warrant. Both the 2024 Chen Debenture and the 2024 Chen Warrant include a beneficial ownership blocker of 9.99%, which may only be waived by Chen upon 61 days' notice to us. Chen has executed a waiver relinquishing its rights to receive prior notice of, and to participate in, this offering, and waived any provision of the 2024 Chen Debenture that would otherwise result in the acceleration of the maturity date upon the completion of this offering to a date earlier than December 31, 2024. Â On July 12, 2024, we issued a senior note to an institutional investor pursuant to a certain securities purchase agreement (the "2024 Senior Note Agreement") dated July 5, 2024, providing for the

Company to issue to the investor at par a Senior Note with the following characteristics and terms, against the investor's loan of \$2,000,000 in cash: (a) an original principal amount of \$2,000,000, (b) unsecured, (c) nonconvertible, (d) scheduled maturity date of July 8, 2025, (e) interest at the rate of 18% per annum, (f) requirement for partial prepayments from a percentage of any future Company financings, and (g) otherwise, principal and interest on the senior note not payable until maturity. Pursuant to the 2024 Senior Note Agreement, which also required resignations and appointments by the Company's Board of Directors, on July 5, 2024, Richard David, Sidney Emery, Kurt Kruger, and Ira Ritter each resigned from their respective positions as members of the Company's Board of Directors, effective July 12, 2024. The Company's Board of Directors appointed Campbell Becher, Robert Lim, and Cody Price to serve as directors on the Board, effective July 12, 2024. On September 9, 2024, we paid off the 2024 Senior Note Agreement in full in the principal amount of \$2,000,000 plus accrued interest of \$60,000. Between May 16, 2024 and July 12, 2024, we issued a total of 1,599,924 shares of common stock to Alpha who partially exercised a warrant for shares of Company common stock at \$0.26 per share. On September 9, 2024, Alpha voluntarily partially converted \$50,979 in principal from the 2024 Alpha Debenture into 392,146 shares of common stock. We also have an incentive compensation plan for our management, employees and consultants and an employee stock purchase plan, which has been temporarily suspended. We have granted, and expect to grant in the future, options to purchase shares of our common stock to our directors, employees and consultants. To the extent that options are exercised, our stockholders will experience dilution and our stock price may decrease. The sale, or even the possibility of a sale, of the shares of common stock underlying these options, warrants and the 2022 Debenture (and the 2024 Alpha Debenture, the 2024 Chen Debenture, the 2024 Alpha Warrant and the 2024 Chen Warrant) could have an adverse effect on the market price for our securities or on our ability to obtain future financing. If the offering price of the common stock in this offering is lower than the current exercise price of certain of our outstanding warrants with anti-dilution price protection provisions, then, as a result of this offering, such outstanding warrants will have their exercise prices reduced to the offering price. If the offering price of the common stock in this offering is lower than \$0.13 per share, which is the current lowest exercise price among our outstanding warrants with anti-dilution price protection provisions, then, as a result of this offering, such warrants, which, before this offering, are exercisable for up to 3,674,792 shares of our common stock, will have their exercise prices reduced to at least the offering price per share in this offering. These warrants include: (i) warrants issued to Alpha and other holders in May 2020 which, before this offering, are exercisable for up to 74,668 shares of our common stock, (ii) a common stock purchase warrant issued to Alpha in December 2022 which, before this offering, is exercisable for up to 900,076 shares of our common stock (the "2022 Warrant"), (iii) the 900,016-shares 2024 Alpha Warrant, and (iv) the 1,800,032-shares 2024 Chen Warrant. If the offering price of the common stock in this offering is lower than the current conversion price of the Debentures issued to Alpha and Chen, then, as a result of this offering, such conversion price will be reduced to the offering price and therefore the number of shares of common stock issuable upon full conversion of the Debentures will increase. If the offering price of the common stock in this offering is lower than \$0.13 per share, which is the current conversion price of the 2024 Alpha Debenture and the 2024 Chen Debenture, then this offering could be considered a "Dilutive Issuance" (as defined below) and the conversion price of the Debentures shall be reduced to equal the offering price per share in this offering. As a result, the number of shares of common stock issuable upon full conversion of the Debentures will increase. As an example, if the offering price of the common stock in this offering equals the assumed offering price of \$0.10, then the 2024 Alpha Debenture and the 2024 Chen Debenture would be convertible into approximately 15,990,220 shares of common stock instead of the 12,300,161 shares of common stock the 2024 Alpha Debenture and the 2024 Chen Debenture are convertible into before this offering. 17 Our shares of common stock are thinly traded, so stockholders may be unable to sell at or near ask prices or at all if they need to sell shares to raise money or otherwise desire to liquidate their shares. Our common stock has from time to time been "thinly-traded," meaning that the number of persons interested in purchasing our common stock at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company that is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we become more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give stockholders any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained. We do not currently intend to pay dividends on our common stock in the foreseeable future, and consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation in the price of our common stock. We have never declared or paid cash dividends on our common stock and do not anticipate paying any cash dividends to holders of our common stock in the foreseeable future. Consequently, our stockholders 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. Upon our dissolution, our stockholders may not recoup all or any portion of their investment. Our working capital deficiency, stockholders' deficit, and recurring losses from operations raise substantial doubt about our ability to continue as a going concern. As a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements for the year ended December 31, 2023 with respect to this uncertainty. Our ability to continue as a going concern will require us to obtain additional funding. In the event of our liquidation, dissolution or winding-up, whether voluntary or involuntary, the proceeds and/or our assets remaining after giving effect to such transaction, and the payment of all of our debts and liabilities, including the Debentures, will be distributed to the holders of common stock on a pro rata basis. There can be no assurance that we will have available assets to pay to the holders of common stock, or any amounts, upon such a liquidation, dissolution or winding-up. In this event, our stockholders could lose some or all of their investment. Our board of directors can, without stockholder approval, cause preferred stock to be issued on terms that adversely affect holders of our common stock. Under our Amended and Restated Certificate of Incorporation (as amended, the "Certificate of Incorporation"), our board of directors is authorized to issue up to 15,000,000 shares of preferred stock, of which none are issued and outstanding as of the date of this prospectus. Also, our board of directors, without stockholder approval, may determine the price, rights, preferences, privileges and restrictions, including voting rights, of those shares. If our board of directors causes shares of preferred stock to be issued, the rights of the holders of our

common stock would likely be subordinate to those of preferred holders and therefore could be adversely affected. Our board of directors' ability to determine the terms of preferred stock and to cause its issuance, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire a majority of our outstanding common stock. Preferred shares issued by our board of directors could include voting rights or super voting rights, which could shift the ability to control the Company to the holders of the preferred stock. Preferred stock could also have conversion rights into shares of our common stock at a discount to the market price of our common stock, which could negatively affect the market for our common stock. In addition, preferred stock would have preference in the event of liquidation of the Company, which means that the holders of preferred stock would be entitled to receive the net assets of the Company distributed in liquidation before the holders of our common stock receive any distribution of the liquidated assets. 18 Our management will have broad discretion over the use of the net proceeds from this offering and we may use the net proceeds in ways with which you disagree, or which do not produce beneficial results. We currently intend to use the net proceeds from this offering for our operations and for other general corporate purposes, including, but not limited to, the IR Agency Payment of \$800,000 for marketing expenditures, general working capital, our internal research and development programs, and possible future acquisitions (see "Use of Proceeds"). We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us or our stockholders. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, and results of operation. This is a best efforts offering; no minimum amount of securities is required to be sold, and we may not raise the amount of capital we believe is required for our business. The Placement Agent has agreed to use its reasonable best efforts to solicit offers to purchase the securities in this offering. The Placement Agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, Placement Agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth in this prospectus. We may sell fewer than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. Thus, we may not raise the amount of capital we believe is required for our business and may need to raise additional funds, which may not be available or available on terms acceptable to us. Despite this, any proceeds from the sale of securities offered by us will be available for our immediate use, and because there is no escrow account and no minimum offering amount in this offering, investors could be in a position where they have invested in us, but we are unable to fulfill our objectives due to a lack of interest in this offering. There is no public market for the pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants on any securities exchange or nationally recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be extremely limited. Holders of the pre-funded warrants will not have rights of holders of our shares of common stock until such pre-funded warrants are exercised. The pre-funded warrants in this offering do not confer any rights of share ownership on their holders, but rather merely represent the right to acquire shares of our common stock at a fixed price. Until holders of pre-funded warrants acquire shares of our common stock upon exercise of the pre-funded warrants, as applicable, holders of pre-funded warrants will have no rights with respect to our shares of common stock underlying such pre-funded warrants. 19 If we do not maintain a current and effective registration statement relating to the common stock issuable upon exercise of the pre-funded warrants being offered in this offering, holders will be able to exercise such warrants on a "cashless" basis and we may not receive any additional funds upon the exercise of such warrants. If we do not maintain a current and effective registration statement relating to the common stock issuable upon exercise of the pre-funded warrants being offered in this offering, such warrants may be exercised by way of a "cashless" exercise, meaning that the holder would not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the warrant. Accordingly, we may not receive any additional funds upon the exercise of such warrants. 20 Purchasers who purchase our securities in this offering pursuant to a securities purchase agreement may have rights not available to purchasers that purchase without the benefit of a securities purchase agreement. In addition to rights and remedies available to all purchasers in this offering under federal securities and state law, the purchasers that enter into a securities purchase agreement will also be able to bring claims of breach of contract against us. The ability to pursue a claim for breach of contract provides those investors with the means to enforce any covenants uniquely available to them under the securities purchase agreement. There is no assurance that we and Marizyme will agree to any expanded relationship, or that any expanded relationship which is agreed to would be favorable to us. Under the Co-Development Agreement with Marizyme, we were entitled to an exclusivity period (the "Exclusivity Period") until May 31, 2024 for purposes of proposing and outlining a broader strategic relationship with Marizyme with regard to Marizyme's DuraGraft business. The Exclusivity Period has ended, and we do not intend to expand the Exclusivity Period. The co-development relationship with Marizyme could increase Funding Payments, a revised payback structure to us in respect of past or future Funding Payments, etc. However, we and Marizyme have not reached and may not ever reach any such agreement for an expanded relationship.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS This prospectus and the information incorporated herein by reference contain forward-looking statements by Qualigen Therapeutics, Inc. that involve risks and uncertainties and reflect our judgment as of the date of this prospectus. These statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Such forward-looking statements may relate to, among other things, potential future development, testing and launch of products and product candidates. Actual events or results may differ from our expectations due to a number of factors. These forward-looking statements include, but are not limited to, statements about: — our ability to procure sufficient working

capital to continue and complete the development, testing and launch of our prospective drug products; — our ability to successfully develop any drugs; — our ability to progress our drug candidates through preclinical and clinical development; — our ability to obtain the requisite regulatory approvals for our clinical trials and to begin and complete such trials according to any projected timeline; — our ability to complete enrollment in our clinical trials as contemplated by any projected timeline; — the likelihood that future clinical trial data will be favorable or that such trials will confirm any improvements over other products or lack negative impacts; — our ability to successfully commercialize any drugs; — the likelihood that patents will issue on our in-licensed patent applications; — our ability to protect our intellectual property; and — our ability to compete. By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, and healthcare, regulatory and scientific developments and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate, are consistent in some future periods with the forward-looking statements contained in this prospectus, they may not be predictive of results or developments in other future periods. Any forward-looking statement that we make in this prospectus speaks only as of the date of this prospectus, and we disclaim any intent or obligation to update these forward-looking statements beyond the date of this prospectus, except as required by law. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Future filings with the Securities and Exchange Commission (the “SEC”), future press releases and future oral or written statements made by us or with our approval, which are not statements of historical fact, may also contain forward-looking statements. Because such statements include risks and uncertainties, many of which are beyond our control, actual results may differ materially from those expressed or implied by such forward-looking statements. The forward-looking statements speak only as of the date on which they are made, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they are made. You should also consider carefully the statements under the section titled “Risk Factors” in this prospectus, and documents incorporated herein by reference including the sections titled “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” incorporated by reference from our most recent Annual Report on Form 10-K and in our Quarterly Reports on Form 10-Q, as well as any amendments thereto, filed with the SEC, which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements and could materially and adversely affect our business, operating results and financial condition. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the applicable cautionary statements. USE OF PROCEEDS We estimate that net proceeds from this offering will be approximately up to \$1.8 million (based on an assumed public offering price of \$0.13 per share) after deducting estimated Placement Agent fees and estimated offering expenses payable by us, and assuming no sale of any pre-funded warrants in this offering. A \$0.10 increase (decrease) in the assumed public offering price of \$0.13 per share would increase (decrease) the net proceeds to us from this offering by approximately \$1.3 million, using the same assumptions set forth above. Similarly, a 100,000 increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us by approximately \$12,000, using the same assumptions set forth above. We intend to use the net proceeds from the sale of the securities offered by us pursuant to this prospectus for our operations and for other general corporate purposes, including the IR Agency Payment of \$800,000 to increase awareness of the Company’s activities, general working capital, advancement of our clinical trial and preclinical studies, and possible future acquisitions. We have not determined the amount of net proceeds to be used specifically for such purposes and, as a result, management will retain broad discretion over the allocation of net proceeds. The occurrence of unforeseen events or changed business conditions could result in the application of the net proceeds from this offering in a manner other than as described in this prospectus. Pending their uses, we intend to invest the net proceeds of this offering in interest-bearing bank accounts or in short-term, interest-bearing, investment-grade securities. In the event that the gross proceeds from the sale of the securities offered are less than \$1,800,000, the IR Agency Payment shall not be due pursuant to the IR Agency Consulting Agreement. All net proceeds shall be allocated toward general working capital and the other purposes mentioned above. 21 DIVIDEND POLICY We have not paid cash dividends on our common stock, and we do not anticipate that we will declare or pay dividends on our common stock in the foreseeable future. Payment of dividends, if any, is within the sole discretion of our board of directors and will depend, among other factors, upon our earnings, capital requirements and our operating and financial condition. To the extent we have any earnings, we likely will retain earnings to pay down debt, or expand corporate operations and not use such earnings to pay dividends. CAPITALIZATION The following table sets forth our cash, total long-term liabilities and capitalization as of June 30, 2024 on: — an actual basis; — a pro forma basis to give effect to the September Offering; — a pro forma as adjusted basis, including the proceeds received from the September Offering, as disclosed in the Registration Statement on Form S-1 (File No. 333-272623), to give effect to this offering for aggregate gross proceeds of up to \$1.8 million, based on an assumed public offering price of \$0.13 per share of common stock, assuming no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis, and after deducting the Placement Agent fees and other estimated offering expenses payable by us. You should read this capitalization table together with the section titled “Use of Proceeds” in this prospectus, and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements and the related notes included in our Annual Report on Form 10-K for the year ended December 31, 2023, and Form 10-Q for the quarter ended June 30, 2024 which are incorporated by reference in this prospectus. At June 30, 2024 Actual Proforma September Offering This Offering As Adjusted (unaudited) (unaudited) Proforma (unaudited)

Cash	\$118,685	\$118,685	\$118,685	\$118,685
Total Liabilities	\$4,812,273	\$4,812,273	\$4,812,273	\$4,812,273
Stockholders’ equity	\$3,172,033	\$1,574,400	\$4,746,433	\$4,746,433

Qualigen Therapeutics, Inc. stockholders’ equity

(deficit):

	Common stock, \$0.001 par value; 225,000,000 shares authorized; 9,613,899 shares issued and outstanding as of June 30, 2024	Additional paid-in capital	Accumulated other comprehensive income	Accumulated deficit	Total stockholders' equity (deficit)
	47,514	62,238	14,000	76,238	
	116,086,316	119,124,940	1,560,400	120,685,340	
	120,411,693	120,411,693			
	120,411,693				
	1,574,400	1,574,400			
	349,885				
	534,410	3,587,758	1,574,400	5,162,158	22

The number of shares of common stock to be outstanding after this offering set forth in the table above is based on 9,613,899 shares of common stock outstanding on June 30, 2024, plus 14,724,058 shares of common stock and 11,972,754 prefunded warrants issued on September 6, 2024 per the Registration Statement on Form S-1 (File No. 333-272623) (the "September Offering"), does not give effect to the shares of common stock issuable upon exercise of the pre-funded warrants issued in this offering and excludes:

- 337,286 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024, at a weighted average exercise price of \$38.92 per share;
- 4,741,957 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024, at a weighted average exercise price of \$0.48 per share;
- 4,218,978 shares of common stock issuable under the 2022 Debenture, the 2024 Alpha Debenture and the 2024 Chen Debenture as of June 30, 2024, based on the conversion price of \$0.26 per share as of June 30, 2024;
- 418,429 shares of common stock available for future issuance under the Company's 2020 Stock Incentive Plan (the "2020 Plan") as of June 30, 2024; and
- 100,000 shares of common stock issuable under the Company's 2021 Employee Stock Purchase Plan (the "ESPP"), which has been temporarily suspended.

DILUTION Purchasers of common stock or pre-funded warrants in this offering will experience immediate dilution to the extent of the difference between the public offering price per share of common stock in this offering and the net tangible book value per share of common stock immediately after this offering. Our net tangible book value as of June 30, 2024 was approximately \$(4.3) million, or \$(0.44) per share of common stock. Net tangible book value per share is determined by dividing the net of total tangible assets less total liabilities, by the aggregate number of shares of common stock outstanding as of June 30, 2024. After giving further effect to the September Offering which closed on September 6, 2024 for aggregate gross proceeds of \$3.47 million, based on a public offering price of \$0.13 per share, and after deducting the estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2024 would have been \$(1,224,515) or \$(0.05) per share of common stock. This represented an immediate increase in the net tangible book value of \$0.39 per share to our existing stockholders and an immediate dilution in net tangible book value of \$0.18 per share to new investors purchasing securities in the offering. After giving further effect to this offering for aggregate gross proceeds of up to \$1.8 million, based on an assumed public offering price of \$0.13 per share, assuming no sale of pre-funded warrants issued in this offering, and after deducting the estimated offering expenses of \$100,000 payable by us for this offering, our as adjusted net tangible book value as of June 30, 2024 would have been \$349,885 or \$0.01 per share of common stock. This represents an immediate increase in the net tangible book value of \$0.06 per share to our existing stockholders and an immediate dilution in net tangible book value of \$0.12 per share to new investors purchasing securities in the offering. The calculations set forth in this section only reflect direct shares and pre-funded warrants.

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The table below illustrates this dilution on a per-share basis, assuming no sale of pre-funded warrants, which, if sold, would reduce the number of shares of common stock that we are offering on a one-for-one basis, and excludes the proceeds, if any, from the exercise of any pre-funded warrants issued in the offering.		
Assumed public offering price per share of common stock	\$0.13	
Net tangible book value per share as of June 30, 2024	\$(0.44)	
Increase in net tangible book value per share attributable to existing stockholders (prior offering)	\$0.39	
As adjusted net tangible book value per share as of June 30, 2024, after giving effect to prior offering (1)	\$(0.05)	
Increase in net tangible book value per share attributable to existing stockholders (this offering)	\$0.06	
As adjusted net tangible book value per share as of June 30, 2024, after giving effect to this offering (2)	\$0.01	
Dilution per share to new investors purchasing securities in this offering	\$0.12	

(1) Per Prospectus registration no. 333-272623 which closed on September 6, 2024. (2) An \$0.04 increase or decrease in the assumed public offering price per share of common stock, would increase (decrease) the dilution to investors participating in this offering by \$0.03 per share. The above table excludes:

- 337,286 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024, at a weighted average exercise price of \$38.92 per share;
- 4,741,957 shares of common stock issuable upon the exercise of warrants outstanding as of June 30, 2024, at a weighted average exercise price of \$0.48 per share;
- 4,218,978 shares of common stock issuable under the 2022 Debenture, the 2024 Alpha Debenture and the 2024 Chen Debenture as of June 30, 2024, based on the conversion price of \$0.26 per share as of June 30, 2024;
- 418,429 shares of common stock available for future issuance under the 2020 Plan as of June 30, 2024; and
- 100,000 shares of common stock issuable under the ESPP, which has been temporarily suspended.

The above table also excludes 2,934,077 shares issued from July 1, 2024 through September 30, 2024 from exercises of warrants listed above and voluntary conversions of the 2022 and 2024 Alpha Debentures into common stock.

24 To the extent that options or warrants are exercised, new options are issued under our 2020 Plan, shares are issued under the 2024 Alpha Debenture, the 2024 Chen Debenture, the 2024 Alpha Warrant or the 2024 Chen Warrant, or we issue additional shares of common stock in the future, there may be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders. Because there is no minimum offering amount required as a condition to the closing of this offering, the dilution per share to purchasers in the offering may be more than that indicated above in the event that the actual number of shares sold, if any, is less than the maximum number of shares of our common stock we are offering.

DESCRIPTION OF CAPITAL STOCK The following description of the terms of our securities is not complete and is qualified in its entirety by reference to our Certificate of Incorporation, and our amended and restated bylaws (the "Bylaws"), both of which are filed as exhibits to our Annual Report on Form 10-K. Under our Certificate of Incorporation and Bylaws, we are authorized to issue 240,000,000 shares of capital stock, consisting of 225,000,000 shares of common stock, par value \$0.001 per share, and 15,000,000 shares of preferred stock, \$0.001 par value per share, including 7,000 shares that have been designated as Series Alpha Preferred Stock. As of September 30, 2024, there were 27,414,185 shares of our common stock outstanding and no shares of our Series Alpha Preferred Stock outstanding.

Common Stock Pursuant to the terms of our Certificate of Incorporation, the holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders, except on matters relating solely to terms of preferred stock. Subject to preferences that may be applicable to any outstanding preferred stock, the

holders of common stock will be entitled to receive ratably such dividends, if any, as may be declared from time to time by our Board of Directors out of funds legally available therefor. In the event of liquidation, dissolution or winding up, the stockholders will be entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. The holders of our common stock will have no preemptive or conversion rights or other subscription rights. There will be no redemption or sinking fund provisions applicable to our common stock.

Preferred Stock Pursuant to the terms of our Certificate of Incorporation, our Board of Directors has the authority to issue preferred stock in one or more classes or series and to fix the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, including dividend rights, conversion right, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any class or series, without further vote or action by the stockholders.

The issuance of shares of preferred stock, or the issuance of rights to purchase such shares, may decrease the amount of earnings and assets available for distribution to the holders of common stock, could adversely affect the rights and powers, including voting rights, of the common stock, and could have the effect of delaying, deterring or preventing a change of control of us or an unsolicited acquisition proposal.

Stock Options As of September 30, 2024, we had outstanding options to acquire 336,996 shares of our common stock, having a weighted-average exercise price of \$42.07 per share.

Warrants As of September 30, 2024, we had outstanding warrants (including the 2022 Warrant, the 2024 Alpha Warrant and the 2024 Chen Warrant) to purchase an aggregate of 3,700,222 shares of our common stock, having a weighted-average exercise price of \$0.43 per share.

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If the offering price of the common stock in this offering is lower than \$0.26 share, which is the current lowest exercise price among our outstanding warrants with anti-dilution price protection provisions, as a result of this offering, certain of our outstanding warrants, which are exercisable for up to 3,674,792 shares of our common stock, will have their exercise prices reduced to at least the offering price per share in this offering. These warrants include: (i) warrants issued to Alpha and other holders in May 2020 which, before this offering, are exercisable for up to 74,668 shares of our common stock, (ii) 900,076 shares remaining on the 2022 Warrant, (iii) the 900,016-shares 2024 Alpha Warrant, and (iv) the 1,800,032-shares 2024 Chen Warrant.

2024 Debenture - Alpha On February 27, 2024, upon our receipt of a cash purchase price payment of \$500,000 (less expenses), we issued to Alpha an 8% Convertible Debenture (the “2024 Alpha Debenture”) in the principal amount of \$550,000. The 2024 Alpha Debenture matures no later than December 31, 2024 and is convertible, at any time, and from time to time, at Alpha’s option, into shares of common stock of the Company, at \$0.6111 per share, subject to adjustment as described in the 2024 Alpha Debenture. Except in respect of an Exempt Issuance, the 2024 Alpha Debenture contains a “ratchet” antidilution provision, with an \$0.1164 floor. Accordingly, if the offering price of the common stock in this offering is lower than the current conversion price, then this offering could be considered a “Dilutive Issuance” and the conversion price of the 2024 Alpha Debenture shall be reduced to equal the offering price per share in this offering. The 2024 Alpha Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, payable at maturity. In connection with this issuance, we also issued to Alpha the 2024 Alpha Warrant - a 5-year common stock purchase warrant to purchase (at \$0.26 per share) 900,016 shares of our common stock. We also granted to Alpha an option (the “2024 Option”), exercisable until July 1, 2024, to purchase from us additional 8% Convertible Debentures, of like tenor, with face amounts of up to an aggregate of \$1,100,000 (and with a proportional number of accompanying common stock warrants of like tenor, up to a total of 1,800,032 additional warrants). On April 8, 2024, Alpha assigned the 2024 Option to Yi Hua Chen (the “Chen”). Alpha has executed a waiver relinquishing its rights to receive prior notice of, and to participate in, this offering, and waived any provision of the 2024 Alpha Debenture that would otherwise result in the acceleration of the maturity date upon the completion of this offering to a date earlier than December 31, 2024.

2024 Debenture - Chen On April 11, 2024, Chen exercised the Alpha Option in full, and on April 12, 2024 Chen paid the Company a cash exercise/purchase price of \$1,000,000. Upon such payment, we issued to Chen an 8% Convertible Debenture (the “2024 Chen Debenture”) in the principal amount of \$1,100,000. The 2024 Chen Debenture matures no later than December 31, 2024 and is convertible, at any time, and from time to time, at Chen’s option, into shares of common stock of the Company, at \$0.6111 per share, subject to adjustment as described in the 2024 Debenture. Except in respect of an Exempt Issuance, the 2024 Chen Debenture contains a “ratchet” antidilution provision, with an \$0.1164 floor. Accordingly, if the offering price of the common stock in this offering is lower than the current conversion price, then this offering could be considered a “Dilutive Issuance” and the conversion price of the 2024 Chen Debenture shall be reduced to equal the offering price per share in this offering. The 2024 Chen Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, payable at maturity. Pursuant to the terms of the Alpha Option as exercised by Chen, on April 12, 2024 we also issued to Chen the 2024 Chen Warrant - a common stock purchase warrant, exercisable until February 27, 2029, to purchase 1,800,032 shares of our common stock at \$0.26 per share. Chen has executed a waiver relinquishing its rights to receive prior notice of, and to participate in, this offering, and waived any provision of the 2024 Chen Debenture that would otherwise result in the acceleration of the maturity date upon the completion of this offering to a date earlier than December 31, 2024.

Registration Rights In December 2022, pursuant to the terms of the 2022 Securities Purchase Agreement, we entered into a registration rights agreement with Alpha (the “Registration Rights Agreement”), pursuant to which we agreed to file one or more registration statements, as necessary, and to the extent permissible, to register under the Securities Act the resale of the remaining shares (underlying the 2022 Debenture and the 2022 Warrant) not otherwise registered under the Company’s registration statement on Form S-3 (File No. 333-266430). The Registration Rights Agreement requires that the Company file, within 30 days after signing, a resale registration statement and use commercially reasonable efforts to cause the resale registration statement to be declared effective by the SEC on or before the 60th calendar day following the date of signing of the Registration Rights Agreement (or 120 days if such registration statement is subject to full review by the SEC). We filed a resale registration statement on Form S-3 pursuant to the requirements of the Registration Rights Agreement on December 2022 (File Number 333-269088), which registration statement was declared effective by the SEC on January 5, 2023. On September 1, 2023, we filed a Post-Effective Amendment No. 1 to Form S-3 on Form S-1 (File No. 333-269088), which Post-Effective Amendment was declared effective by the SEC on September 7, 2023. On May 1, 2024, we filed a Post-Effective Amendment No. 2 to Form S-1 on Form S-3 (File No. 333-269088), which Post-Effective Amendment was declared effective by the SEC on May 2, 2024.

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We granted Alpha “piggyback” registration rights for the shares underlying the 2024 Alpha Debenture and the 2024 Alpha Warrant. Similarly, Chen has “piggyback” registration rights for the shares underlying the 2024 Chen Debenture and the 2024 Chen Warrant. Alpha and Chen have the contractual right (if not waived by them) to require us to, in the registration statement of which this Prospectus is a part, register for resale up to all of such underlying shares.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws The provisions of Delaware law

and our Certificate of Incorporation and Bylaws could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or in our best interests. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by the board of directors and to discourage certain types of transactions that may involve an actual or threatened change of our control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. Such provisions also may have the effect of preventing changes in our management.

Â Delaware Statutory Business Combinations Provision. We are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law (the “DGCL”). Section 203 prohibits a publicly-held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. For purposes of Section 203, a “business combination” is defined broadly to include a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and, subject to certain exceptions, an “interested stockholder” is a person who, together with his or her affiliates and associates, owns, or within three years prior, did own, 15% or more of the corporation’s voting stock.

Â Election and Removal of Directors. Except as may otherwise be provided by the DGCL, any director or the entire board of directors may be removed, with or without cause, at an annual meeting or a special meeting called for that purpose, by the holders of a majority of the shares then entitled to vote at an election of directors, provided a quorum is present. Vacancies on our board of directors resulting from the removal of directors and newly created directorships resulting from any increase in the number of directors may be filled solely by the affirmative vote of a majority of the remaining directors then in office (although less than a quorum) or by the sole remaining director. This system of electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of our directors. Our Certificate of Incorporation and Bylaws do not provide for cumulative voting in the election of directors.

Â Advance Notice Provisions for Stockholder Proposals and Stockholder Nominations of Directors. Our Bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a stockholder before a meeting of stockholders, the stockholder must first have given timely notice of the proposal in writing to our Secretary. For an annual meeting, a stockholder’s notice generally must be delivered not less than 90 days or more than 120 days before the anniversary of the previous year’s annual meeting.

Â Special Meetings of Stockholders. Special meetings of the stockholders may be called at any time only by the board of directors, the Chairman of the board of directors, the Chief Executive Officer or the President, subject to the rights of the holders of any series of preferred stock then outstanding.

Â Blank-Check Preferred Stock. Our board of directors is authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our board of directors does not approve.

Â 27 Â Â Transfer Agent Â The transfer agent and registrar for our common stock is Equiniti Trust Company. Its address is P.O. Box 64945, Saint Paul, MN 55164-0945 and its telephone number is (800) 468-9716.

Â Listing Â Our common stock is listed on The Nasdaq Capital Market under the symbol “QLGN.”

Â DESCRIPTION OF SECURITIES WE ARE OFFERING Â Common Stock Â The material terms and provisions of our common stock are described under the section titled “Description of Capital Stock” on page 25.

Â Pre-Funded Warrants Â The following summary of certain terms and conditions of the pre-funded warrants is not complete and is subject to, and qualified in its entirety by, the provisions of pre-funded warrant, the form of which is filed as an exhibit to the registration statement of which this prospectus forms 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.

Â General Â The term “pre-funded” refers to the fact that the purchase price of the pre-funded warrants 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 \$0.001. 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, at the election of the holder, 9.99%) of our outstanding common stock following the consummation of this offering the opportunity to invest capital into the Company without triggering their ownership restrictions, by receiving pre-funded warrants in lieu of shares of our common stock which would result in such ownership of more than 4.99% (or, at the election of the holder, 9.99%), and receiving the ability to exercise their option to purchase the shares underlying the pre-funded warrants at a nominal price at a later date.

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

Â Exercisability Â The pre-funded warrants are exercisable at any time after their original issuance and will be exercisable until exercised in full. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full by wire transfer or cashier’s check drawn on a United States bank for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as described below). A holder (together with its affiliates) may not exercise any portion of the pre-funded warrant to the extent that the holder would own more than 4.99% (or, at the election of the holder, 9.99%) of the outstanding common stock immediately after exercise, except that upon at least 61 days’ prior notice from the holder to us, the holder may increase or decrease such beneficial ownership limitation, provided that the limitation in no event exceeds 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. 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 or round up to the next whole share of common stock.

Â 28 Â Â Duration and Exercise Price Â The exercise price per whole share of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.001 per share of common stock. The pre-funded warrants will be immediately exercisable and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise price of the pre-funded warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Â Cashless Exercise Â If, at any time after the issuance of the pre-funded warrants, the holder exercises its pre-funded warrants and a

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

Transferability Subject to applicable laws, the pre-funded warrants and all right thereunder are transferable, in whole or in part, at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer and funds sufficient to pay any transfer taxes payable upon the making of such transfer.

Exchange Listing There is no established trading market for the pre-funded warrants, and we do not plan on applying to list the pre-funded warrants on The Nasdaq Capital Market any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of 50% or more of our outstanding voting power of the common equity, or any person or group becoming the beneficial owner of 50% or more of the voting power represented by our outstanding common equity, 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 before such fundamental transaction without regard to any limitations on exercise contained in the pre-funded warrants.

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

29 PLAN OF DISTRIBUTION Univest Securities, LLC has agreed to act as our exclusive placement agent in connection with this offering subject to the terms and conditions of the placement agency agreement dated October [*, 2024]. The Placement Agent is not purchasing or selling any of the securities offered by this prospectus, nor is it required to arrange the purchase or sale of any specific number or dollar amount of securities but has agreed to use its reasonable best efforts to arrange for the sale of all of the securities offered hereby. Therefore, we may not sell the entire amount of securities offered pursuant to this prospectus. We will enter into a securities purchase agreement directly with certain investors, at the investor's option, who purchase our securities in this offering. 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.

Alpha and Chen have participation rights, under their Debentures, which (if not waived by them) would entitle them to purchase in this offering up to all of the Securities. We will deliver the securities being issued to the investors upon receipt of such investor's funds for the purchase of the securities offered pursuant to this prospectus. We will deliver the securities being offered pursuant to this prospectus upon closing (or, if there are multiple closings (which would in any event be upon with the same terms, and all of which closings would occur by no later than October __, 2024) we will deliver such securities upon the applicable closing in which the particular investor participates). We expect this offering to be completed not later than two (2) business days following the commencement of this offering and we will deliver all securities to be issued in connection with this offering delivery versus payment (DVP)/receipt versus payment (RVP) upon receipt of investor funds received by us. We expect to deliver the securities being offered pursuant to this prospectus on or about October __, 2024.

We have agreed to indemnify the Placement Agent and specified other persons against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the Placement Agent may be required to make in respect thereof.

Fees and Expenses We have engaged Univest Securities, LLC as our exclusive placement agent in connection with this offering. This offering is being conducted on a "best efforts" basis and the Placement Agent has no obligation (nor does any placement agent syndicate member have any obligation) to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay the Placement Agent (inclusive of any placement agent syndicate members) a cash fee equal to 8% of the gross proceeds of the offering.

30 We have also agreed to reimburse the Placement Agent at closing (or, if there are multiple closings (which would in any event be upon the same terms, and all of which closings would occur by no later than October __, 2024) at the last such closing) (i) for legal and other expenses incurred by them in connection with the offering in an aggregate amount up to \$30,000. We estimate the total expenses payable by us for this offering, excluding the Placement Agent fees and expenses, will be approximately \$100,000.

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;^{3/4} 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.

Listing Our common stock is listed on The Nasdaq Capital Market under the trading symbol "QLGN." We do not plan to list the pre-funded warrants on the Nasdaq Capital Market or any other securities exchange or trading market.

Right of First Refusal We have agreed to grant the Representative for the 18-month period following the closing of this offering, a right of first refusal to provide investment banking services to us on an exclusive basis in all matters for which investment banking services are sought by us. In accordance with FINRA Rule 5110(g)(6)(A)(i), such right of first refusal shall not have a duration of more than three years from the commencement of sales of this offering or the termination date of the engagement between us and the underwriter.

Tail Financing Subject to certain exceptions set forth in the Letter of Engagement dated as of October 1, 2024, issued by Univest to the Company (the "Letter of Engagement"), if the Company terminates the Letter of Engagement or successfully consummates this offering and subsequently completes any public or private financing (other than pursuant to the exercise or conversion of any derivative securities which were outstanding on October 1, 2024), at any time during the twelve (12) months after terminating the Letter of Engagement or after the successful completion of this offering, with any investors contacted by Univest, then Univest shall be entitled to receive the compensation set forth above unless the Company has a pre-

existing and documented business relationship with the respective investor. **Lock-Up Agreements** Our directors and officers have entered into lock-up agreements. Under these agreements, these individuals agreed, subject to specified exceptions, not to sell or transfer any shares of common stock or securities convertible into, or exchangeable or exercisable for, common stock during a period ending 180 days after the completion of this offering, without first obtaining the written consent of the Placement Agent. Specifically, these individuals agreed, in part, subject to certain exceptions, not to: **Offer for sale, sell, pledge, or otherwise transfer or dispose of** (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of) any shares of common stock or securities convertible into or exercisable or exchangeable for common stock; **enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of common stock;** or **make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any of our securities.** **No Sales of Similar Securities** We have agreed, subject to certain exceptions, not to issue, enter into any agreement to issue or announce the issuance or proposed issuance of, any shares of common stock (or securities convertible into or exercisable for common stock) or, subject to certain exceptions, file any registration statement, including any amendments or supplements thereto (other than the prospectus supplement, registration statement or amendment to the registration statement relating to the securities offered hereunder and a registration statement on Form S-8), until 90 days after the completion of this offering. We have also agreed not to enter into a variable rate transaction (as defined in the securities purchase agreement) for 180 days after the completion of this offering. **Discretionary Accounts** The Placement Agent does not intend to confirm sales of the securities offered hereby to any accounts over which it has discretionary authority. **31 Other Activities and Relationships** The Placement Agent and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The Placement Agent and certain of its affiliates may in the future perform various commercial and investment banking and financial advisory services for us and our affiliates, for which they would receive customary fees and expenses. In the ordinary course of their various business activities, the Placement Agent and certain of its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the Placement Agent or its affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The Placement Agent and its affiliates may hedge such exposure by entering into transactions that consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The Placement Agent and certain of its affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments. The foregoing does not purport to be a complete statement of the terms and conditions of the placement agency agreement or the securities purchase agreement, copies of which are attached to the registration statement of which this prospectus is a part. See **Where You Can Find More Information.** **LEGAL MATTERS** The validity of the securities being offered will be passed upon for us by Sichenzia Ross Ference Carmel LLP, New York, New York. The Placement Agent is being represented by Sullivan & Worcester LLP, New York, New York in connection with this offering. **EXPERTS** The consolidated financial statements of Qualigen Therapeutics, Inc. as of December 31, 2023 and 2022 and for each of the two years in the period ended December 31, 2023, incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2023 have been audited by Baker Tilly US, LLP, an independent registered public accounting firm, as stated in their report thereon (which report includes an explanatory paragraph regarding the existence of substantial doubt about the Company's ability to continue as a going concern), incorporated herein by reference, and have been incorporated in this prospectus and registration statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing. **INCORPORATION OF CERTAIN INFORMATION BY REFERENCE** The SEC allows us to "incorporate by reference" into this prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. Any information referenced this way is considered to be part of this prospectus, and any information that we file later with the SEC will automatically update and, where applicable, supersede this information. We incorporate by reference the following documents that we have filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with the SEC's rules): **(1)** Our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, as filed with the SEC on April 8, 2024; **(2)** Our Periodic Report on Form 10-Q for the period ended March 31, 2024, as filed with the SEC on July 2, 2024 and Our Periodic Report on Form 10-Q for the period ended June 30, 2024, as filed with SEC on August 14, 2024; **(3)** Our Proxy Statement on DEF 14A filed with the SEC on September 10, 2024, and the DEFA 14A filed with the SEC on October 9, 2024; **(4)** Our Current Reports on Form 8-K filed with the SEC on February 22, 2024, February 27, 2024, March 28, 2024, April 16, 2024, May 30, 2024, July 11, 2024, July 15, 2024, July 15, 2024, July 18, 2024, August 5, 2024, September 5, 2024, September 9, 2024, September 20, 2024, September 26, 2024 and October 9, 2024; and **(5)** the description of our common stock, which is registered under Section 12 of the Exchange Act, in our registration statement on Form 8-A, filed with the SEC on June 15, 2015, as updated by Exhibit 4.9 to Amendment No. 1 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed on July 7, 2023. **32** Additionally, all documents filed by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after (i) the date of the initial filing of the registration statement and before effectiveness of the registration statement, and (ii) the date of this prospectus and before the termination or completion of any offering hereunder, shall be deemed to be incorporated by reference into this prospectus from the respective dates of filing of such documents, except that we do not incorporate any document or portion of a document that is "furnished" to the SEC, but not deemed "filed." We undertake to provide without charge to each person (including any beneficial owner) who receives a copy of this prospectus, upon written or oral request, a copy of all of the preceding documents that are incorporated by reference (other than exhibits, unless the exhibits are specifically incorporated by reference into these documents). We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the reports or documents that we incorporate by reference in this prospectus contained in the registration statement (except exhibits

to the documents that are not specifically incorporated by reference) at no cost to you, by writing or calling us at: Qualigen Therapeutics, Inc., Attn: Corporate Secretary, 5857 Owens Avenue, Suite 300, Carlsbad, California 92008, telephone number: (760) 452-8111. Any statements contained in a document incorporated by reference in this prospectus shall be deemed to be modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus (or in any other subsequently filed document which also is incorporated by reference in this prospectus) modifies, supersedes or replaces such statement. Any statement so modified, superseded or replaced shall not be deemed, except as so modified, superseded or replaced, to constitute a part of this prospectus. Statements contained in this prospectus and any document incorporated by reference as to the contents of any contract, agreement or other document referred to are not necessarily complete, and in each instance, reference is made to the copy of the contract, agreement or other document filed as an exhibit to the registration statement or any incorporated document, each statement being so qualified by this reference. WHERE YOU CAN FIND MORE INFORMATION We have filed with the SEC a registration statement on Form S-1 under the Securities Act for the shares of common stock and pre-funded warrants, and the shares of common stock issuable upon exercise of the pre-funded warrants being offered by this prospectus. This prospectus, which is part of the registration statement, does not contain all of the information included in the registration statement and the exhibits. For further information about us and the common stock and pre-funded warrants offered by this prospectus, you should refer to the registration statement and its exhibits. References in this prospectus to any of our contracts or other documents are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract or document. Additionally, we file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including us, at <http://www.sec.gov>. We make available, free of charge, on our website at www.qlgntx.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The contents of our and the SEC's websites are not part of this prospectus, and the reference to our and the SEC's websites do not constitute incorporation by reference into this prospectus of the information contained at those sites, other than documents we file with the SEC that are specifically incorporated by reference into this prospectus.

33 Up to 14,000,000 Shares of Common Stock Up to 14,000,000 Pre-Funded Warrants to Purchase up to 14,000,000 Shares of Common Stock Up to 14,000,000 to Shares of Common Stock Underlying the Pre-Funded Warrants PROSPECTUS Sole Placement Agent Univest Securities, LLC

Other Expenses of Issuance and Distribution. The following table sets forth costs and expenses paid or payable by the registrant in connection with the issuance and distribution of the securities being registered other than the Placement Agent fees. All amounts are estimates except the SEC registration fee and the Financial Industry Regulatory Authority, Inc. ("FINRA") filing fee. Amount to be Paid SEC registration fee \$276,000 FINRA filing fee \$2,300 Printing and engraving expenses \$1,000 Legal fees and expenses \$60,000 Accounting fees and expenses \$30,000 Transfer agent's fees \$1,000 Miscellaneous fees and expenses \$5,424 Total \$100,000

Item 14. Indemnification of Directors and Officers. Our amended and restated certificate of incorporation (as amended, the "Certificate of Incorporation") provides that we shall indemnify, to the fullest extent authorized by the Delaware General Corporation Law ("DGCL"), each person who is involved in any litigation or other proceeding because such person is or was a director or officer of Qualigen Therapeutics, Inc. or is or was serving as an officer or director of another entity at our request, against all expense, loss or liability reasonably incurred or suffered in connection therewith. Our Certificate of Incorporation provides that the right to indemnification includes the right to be paid expenses incurred in defending any proceeding in advance of its final disposition to the fullest extent authorized by the Delaware General Corporation Law. Section 145 of the Delaware General Corporation Law permits a corporation to indemnify any director or officer of the corporation against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with any action, suit or proceeding brought by reason of the fact that such person is or was a director or officer of the corporation, if such person acted in good faith and in a manner that he reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, if he or she had no reason to believe his or her conduct was unlawful. In a derivative action, (i.e., one brought by or on behalf of the corporation), indemnification may be provided only for expenses actually and reasonably incurred by any director or officer in connection with the defense or settlement of such an action or suit if such person acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, except that no indemnification shall be provided if such person shall have been adjudged to be liable to the corporation, unless and only to the extent that the court in which the action or suit was brought shall determine that the defendant is fairly and reasonably entitled to indemnity for such expenses despite such adjudication of liability. Pursuant to Section 102(b)(7) of the Delaware General Corporation Law, our Certificate of Incorporation eliminates the liability of a director to us or our stockholders for monetary damages for such a breach of fiduciary duty as a director, except for liabilities arising:

- from any breach of the director's duty of loyalty to us or our stockholders;
- from acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL; or
- from any transaction from which the director derived an improper personal benefit.

We have entered into indemnification agreements with each of our current directors and officers. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity. We believe that these indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us. We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended. The above discussion is qualified in its entirety by reference to the Company's Certificate of Incorporation and bylaws.

Item 15. Recent Sales of Unregistered Securities. The following is a summary of transactions during the preceding three years (since August 2, 2021) involving sales of our securities that were not registered under the Securities Act. All share and per share data have been adjusted retrospectively to reflect the Reverse Stock Split. On December 3, 2021, we issued a common stock warrant to a consultant, entitling the consultant to purchase up to 60,000 of our shares of common stock at an exercise price of \$13.20 per share. This warrant expired on September 14, 2023. No underwriter

The issuance was involved. The issuance was undertaken in reliance upon the exemption from registration described in Section 4(a)(2) of the Securities Act. On May 26, 2022, we issued 350,000 shares of our common stock and a pre-funded common stock purchase warrant to purchase 331,464 shares of our common stock to Alpha Capital Anstalt ("Alpha") in exchange for 2,232,861 preferred shares of NanoSynex Ltd. No underwriter was involved. The issuance to Alpha was undertaken in reliance upon the exemption from registration described in Section 4(a)(2) of the Securities Act. On December 22, 2022, we issued to Alpha an 8% Senior Convertible Debenture (the "2022 Debenture") in the aggregate principal amount of \$3,300,000 for a purchase price of \$3,000,000. The 2022 Debenture has a maturity date of December 22, 2025 and is convertible, at any time, and from time to time, at Alpha's option, into shares of our common stock, at a price initially equal to \$1.32 per share, subject to adjustment as described in the Debenture. (After the issuance, such conversion price has been adjusted to \$0.26 per share.) The 2022 Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, which interest is payable monthly or quarterly. Additionally, we issued a common stock purchase warrant exercisable from June 22, 2023 through June 22, 2028 (the "2022 Warrant") to Alpha to purchase up to 2,500,000 shares of our common stock at a price of \$1.65 per share, subject to adjustment as described in the 2022 Warrant. (After the issuance, such exercise price has been adjusted to \$0.26 per share.) No underwriter was involved. The issuance to Alpha was undertaken in reliance upon the exemption from registration described in Section 4(a)(2) of the Securities Act. Both the 2022 Debenture and the 2022 Warrant include a beneficial ownership blocker of 9.99%, which may only be waived by Alpha upon 61 days' notice to us. Between January 9 and 12, 2023, we issued 841,726 shares of our common stock upon Alpha's partial conversion of the 2022 Debenture at \$1.32 per share for a total of \$1,111,078 principal. The issuances to Alpha were undertaken in reliance upon the exemptions from registration described in Section 3(a)(9) of the Securities Act. In October and December 2023, we issued 309,665 shares of common stock to Alpha in lieu of cash for monthly redemption payments on the 2022 Debenture at a weighted average price of \$0.71 per share. No underwriter was involved. The issuances to Alpha were undertaken in reliance upon the exemptions from registration described in Section 3(a)(9) of the Securities Act. II-2 A In February, March April and May 2024, we issued a total of 1,604,612 shares of common stock to Alpha in lieu of cash for monthly redemption payments on the 2022 Debenture at a weighted average price of \$0.29 per share. No underwriter was involved. The issuances to Alpha were undertaken in reliance upon the exemptions from registration described in Section 3(a)(9) of the Securities Act. On February 27, 2024, we issued to Alpha an 8% Convertible Debenture (the "2024 Alpha Debenture") in the aggregate principal amount of \$550,000 for a purchase price of \$500,000. The 2024 Alpha Debenture matures no later than December 31, 2024 and is convertible, at any time, and from time to time, at Alpha's option, into shares of our common stock, at \$0.6111 per share, subject to adjustment as described in the 2024 Alpha Debenture. The 2024 Alpha Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, which interest is payable at maturity. Additionally, we issued a 5-year common stock purchase warrant (the "2024 Alpha Warrant") to Alpha to purchase up to 900,016 shares of our common stock at a price of \$0.26 per share, subject to adjustment as described in the 2024 Alpha Warrant. No underwriter was involved. The issuance to Alpha was undertaken in reliance upon the exemption from registration described in Section 4(a)(2) of the Securities Act. Both the 2024 Alpha Debenture and the 2024 Alpha Warrant include a beneficial ownership blocker of 9.99%, which may only be waived by Alpha upon 61 days' notice to us. Alpha has executed a waiver relinquishing its rights to receive prior notice of, and to participate in, this offering, and waived any provision of the 2024 Alpha Debenture that would otherwise result in the acceleration of the maturity date upon the completion of this offering to a date earlier than December 31, 2024. On April 12, 2024, we issued to Yi Hua Chen ("Chen") an 8% Convertible Debenture (the "2024 Chen Debenture") in the aggregate principal amount of \$1,100,000 for a purchase price of \$1,000,000. The 2024 Chen Debenture matures no later than December 31, 2024 and is convertible, at any time, and from time to time, at Chen's option, into shares of our common stock, at \$0.6111 per share, subject to adjustment as described in the 2024 Chen Debenture. The 2024 Chen Debenture accrues interest on its outstanding principal balance at the rate of 8% per annum, which interest is payable at maturity. Additionally, we issued a 5-year common stock purchase warrant (the "2024 Chen Warrant") to Chen to purchase up to 1,800,032 shares of our common stock at a price of \$0.26 per share, subject to adjustment as described in the 2024 Chen Warrant. No underwriter was involved. The issuance to Chen was undertaken in reliance upon the exemption from registration described in Section 4(a)(2) of the Securities Act. Both the 2024 Chen Debenture and the 2024 Chen Warrant include a beneficial ownership blocker of 9.99%, which may only be waived by Chen upon 61 days' notice to us. Our issuance to Chen of the 2024 Chen Debenture and the 2024 Chen Warrant was pursuant to Chen's exercise of a purchase option right which we had granted to Alpha in connection with the 2024 Alpha Debenture/2024 Alpha Warrant transaction, which purchase option right Alpha had then assigned to Chen. Chen has executed a waiver relinquishing its rights to receive prior notice of, and to participate in, this offering, and waived any provision of the 2024 Chen Debenture that would otherwise result in the acceleration of the maturity date upon the completion of this offering to a date earlier than December 31, 2024. On July 5, 2024, we issued a total of 1,218,931 shares of common stock to Alpha, the holder of the Company's 8% Senior Convertible Debenture due December 22, 2025, who completed its series of voluntary conversions of the entire principal amount of the debenture, which had an original principal balance of \$3,300,000, into Company common stock. On July 12, 2024, we issued a senior note to an institutional investor pursuant to certain securities purchase agreement ("2024 Senior Note Agreement") dated July 5, 2024, providing for the Company to issue to the investor at par a Senior Note with the following characteristics and terms, against the investor's loan of \$2,000,000 in cash: (a) an original principal amount of \$2,000,000, (b) unsecured, (c) nonconvertible, (d) scheduled maturity date of July 8, 2025, (e) interest at the rate of 18% per annum, (f) requirement for partial prepayments from a percentage of any future Company financings, and (g) otherwise, principal and interest on the senior note not payable until maturity. Pursuant to the 2024 Senior Note Agreement, which also required resignations and appointments by the Company's Board of Directors, on July 5, 2024, Richard David, Sidney Emery, Kurt Kruger, and Ira Ritter each resigned from their respective positions as members of the Company's Board of Directors, effective July 12, 2024. The Company's Board of Directors appointed Campbell Becher, Robert Lim, and Cody Price to serve as directors on the Board, effective July 12, 2024.

Item	Exhibits and Financial Statement Schedules	Exhibit No.	Description	Form	File No.
1.1*	Form of Placement Agency Agreement	A	A	A	A
2.1	Stock Purchase Agreement dated July 20, 2023 with Chembio Diagnostics, Inc., Biosynex, S.A. and Qualigen, Inc.	8-K	001-37428	2.1	7/26/2023
3.1	Amended and Restated Certificate of Incorporation of Ritter Pharmaceuticals, Inc.	8-K	001-37428	3.1	7/1/2015
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation	8-K	001-37428	3.1	9/15/2017
3.3	Certificate of Amendment to the Amended and Restated Certificate of				

Incorporation Â 8-K Â 001-37428 Â 3.1 Â 3/22/2018 Â Â Â Â Â Â Â Â Â Â 3.4 Â Certificate of Designation of Preferences, Rights and Limitations of Series Alpha Preferred Stock of the Company, filed with the Delaware Secretary of State on May 29, 2020 Â 8-K Â 001-37428 Â 3.1 Â 5/29/2020 Â II-3 Â Â 3.5 Â Certificate of Amendment to the Certificate of Incorporation of the Company, filed with the Delaware Secretary of State on May 22, 2020 [reverse stock split] Â 8-K Â 001-37428 Â 3.2 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 3.6 Â Certificate of Merger, filed with the Delaware Secretary of State on May 22, 2020 Â 8-K Â 001-37428 Â 3.3 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 3.7 Â Certificate of Amendment to the Certificate of Incorporation of the Company, filed with the Delaware Secretary of State on May 22, 2020 Â 8-K Â 001-37428 Â 3.4 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 3.8 Â Amended and Restated Bylaws of the Company, as of August 10, 2021 Â 8-K Â 001-37428 Â 3.1 Â 8/13/2021 Â Â Â Â Â Â Â Â Â Â 3.9 Â Certificate of Amendment to the Amended and Restated Certificate of Incorporation, filed with the Delaware Secretary of State on November 21, 2022 Â 8-K Â 001-37428 Â 3.1 Â 11/22/2022 Â Â Â Â Â Â Â Â Â Â 4.1 Â Warrant, issued by the Company in favor of Alpha Capital Anstalt, dated May 22, 2020 Â 8-K Â 001-37428 Â 10.13 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 4.2 Â Form of Warrant, issued by the Company in favor of GreenBlock Capital LLC and its designees, dated May 22, 2020 [post-Merger] Â 8-K Â 001-37428 Â 10.10 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 4.3 Â Common Stock Purchase Warrant in favor of Alpha Capital Anstalt, dated July 10, 2020 Â 8-K Â 001-37428 Â 10.2 Â 7/10/2020 Â Â Â Â Â Â Â Â Â Â 4.4 Â Common Stock Purchase Warrant in favor of Alpha Capital Anstalt, dated August 4, 2020 Â 8-K Â 001-37428 Â 10.3 Â 8/4/2020 Â Â Â Â Â Â Â Â Â Â 4.5 Â â€œTwo-Yearâ€ Common Stock Purchase Warrant for 1,348,314 shares in favor of Alpha Capital Anstalt, dated December 18, 2020 Â 8-K Â 001-37428 Â 10.3 Â 12/18/2020 Â Â Â Â Â Â Â Â Â Â 4.6 Â â€œDeferredâ€ Common Stock Purchase Warrant in favor of Alpha Capital Anstalt, dated December 18, 2020 Â 8-K Â 001-37428 Â 10.4 Â 12/18/2020 Â Â Â Â Â Â Â Â Â Â 4.7 Â Form of liability classified Warrant to Purchase Common Stock Â 10-K Â 001-37428 Â 4.13 Â 3/31/2021 Â Â Â Â Â Â Â Â Â Â 4.8 Â Form of â€œeservice providerâ€ compensatory equity classified Warrant Â 10-K Â 001-37428 Â 4.14 Â 3/31/2021 Â Â Â Â Â Â Â Â Â Â 4.9 Â Description of Common Stock Â 10-K/A Â 001-37428 Â 4.9 Â 7/7/2023 Â II-4 Â Â 4.10 Â Amended and Restated Common Stock Purchase Warrant to GreenBlock Capital LLC, dated April 25, 2022 Â 10-Q Â 001-37428 Â 4.15 Â 5/13/2022 Â Â Â Â Â Â Â Â Â Â 4.11 Â Amended and Restated Common Stock Purchase Warrant to Christopher Nelson, dated April 25, 2022 Â 10-Q Â 001-37428 Â 4.16 Â 5/13/2022 Â Â Â Â Â Â Â Â Â Â 4.12 Â Common Stock Purchase Warrant for 2,500,000 shares in favor of Alpha Capital Anstalt, dated December 22, 2022 Â 8-K Â 001-37428 Â 4.1 Â 12/22/2022 Â Â Â Â Â Â Â Â Â Â 4.13 Â Common Stock Purchase Warrant for 900,016 shares in favor of Alpha Capital Anstalt, dated February 27, 2024 Â 8-K Â 001-37428 Â 10.3 Â 2/27/2024 Â Â Â Â Â Â Â Â Â Â 4.14 Â Common Stock Purchase Warrant for 1,800,032 shares in favor of Yi Hua Chen, dated April 12, 2024 Â 8-K Â 001-37428 Â 10.3 Â 4/16/2024 Â Â Â Â Â Â Â Â Â Â 4.15* Â Form of Pre-Funded Warrant Â Â Â Â Â Â Â Â Â Â 4.16* Â Form of Securities Purchase Agreement Â Â Â Â Â Â Â Â Â Â 4.17** Â Securities Purchase Agreement dated July 5, 2024. (Incorporated by reference to Exhibit 10.1 of the Companyâ€™s Current Report on Form 8-K filed July 11, 2024.) Â Â Â Â Â Â Â Â Â Â 4.18** Â Senior Note dated July 8, 2024 (Incorporated by reference to Exhibit 10.2 of the Companyâ€™s Current Report on Form 8-K filed July 15, 2024.) Â Â Â Â Â Â Â Â Â Â 4.19** Â Promissory Note, dated July 12, 2024, issued by Qualigen Therapeutics, Inc. to Marizyme, Inc. (Incorporated by reference to Exhibit 10.1 of the Companyâ€™s Current Report on Form 8-K filed July 18, 2024.) Â Â Â Â Â Â Â Â Â Â 5.1* Â Opinion of Sichenzia Ross Ference Carmel LLP Â Â Â Â Â Â Â Â Â Â 10.1+ Â Executive Employment Agreement, by and between Qualigen, Inc. and Michael Poirier, dated as of February 1, 2017 and as amended on January 9, 2018 Â 8-K Â 001-37428 Â 10.1 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 10.2+ Â Executive Employment Agreement, by and between Qualigen, Inc. and Christopher Lotz, dated as of February 1, 2017 and as amended on January 9, 2018 Â 8-K Â 001-37428 Â 10.2 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 10.3+ Â 2020 Stock Equity Incentive Plan Â 8-K Â 001-37428 Â 10.20 Â 5/29/2020 Â Â Â Â Â Â Â Â Â Â 10.4+ Â Standard template of Stock Option Agreement for use under 2020 Stock Incentive Plan Â 8-K Â 001-37428 Â 10.1 Â 6/11/2020 Â Â Â Â Â Â Â Â Â Â 10.5 Â Exclusive License Agreement (RAS) between the Company and University of Louisville Research Foundation, Inc., dated as of July 17, 2020 Â 8-K Â 001-37428 Â 10.4 Â 8/4/2020 Â Â Â Â Â Â Â Â Â Â 10.6 Â Amendment 1 to the Exclusive License Agreement (RAS), by and between Qualigen, Inc. and University of Louisville Research Foundation, Inc., dated March 16, 2021 Â 10-K Â 001-37428 Â 10.11 Â 5/2/2023 Â II-5 Â Â 10.7 Â Novation Agreement (RAS) among the Company, Qualigen, Inc. and University of Louisville Research Foundation, Inc. dated January 30, 2021 Â 10-Q Â 001-37428 Â 10.1 Â 5/14/2021 Â Â Â Â Â Â Â Â Â Â 10.8+ Â Hire offer letter from the Company to Tariq Arshad, dated April 22, 2021 Â 10-Q Â 001-37428 Â 10.1 Â 8/16/2021 Â Â Â Â Â Â Â Â Â Â 10.9 Â License Agreement with UCL Business Limited dated January 12, 2022 Â 10-K Â 001-37428 Â 10.55 Â 3/31/2022 Â Â Â Â Â Â Â Â Â Â 10.10 Â First Deed of Variation to License Agreement with UCL Business Limited dated March 30, 2022 Â 10-K Â 001-37428 Â 10.21 Â 5/2/2023 Â Â Â Â Â Â Â Â Â Â 10.11 Â Series B Preferred Share Purchase Agreement between the Company and NanoSynex Ltd. dated April 29, 2022 Â 10-Q Â 001-37428 Â 10.1 Â 5/13/2022 Â Â Â Â Â Â Â Â Â Â 10.12 Â Share Purchase Agreement between the Company and Alpha Capital Anstalt dated April 29, 2022 Â 10-Q Â 001-37428 Â 10.2 Â 5/13/2022 Â Â Â Â Â Â Â Â Â Â 10.13 Â Master Agreement for the Operational and Technological Funding of NanoSynex between Qualigen Therapeutics, Inc. and NanoSynex Ltd., dated May 26, 2022 Â 8-K Â 001-37428 Â 10.1 Â 6/2/2022 Â Â Â Â Â Â Â Â Â Â 10.14+ Â Qualigen Therapeutics, Inc. 2022 Employee Stock Purchase Plan Â 10-Q Â 001-37428 Â 10.1 Â 11/14/2022 Â Â Â Â Â Â Â Â Â Â 10.15+ Â Amendment No. 2 to the 2020 Stock Incentive Plan of Qualigen Therapeutics, Inc. Â 8-K Â 001-37428 Â 10.1 Â 11/22/2022 Â Â Â Â Â Â Â Â Â Â 10.16+ Â Amendment No. 1 to the 2022 Employee Stock Purchase Plan of Qualigen Therapeutics, Inc. Â 8-K Â 001-37428 Â 10.2 Â 11/22/2022 Â Â Â Â Â Â Â Â Â Â 10.17 Â Securities Purchase Agreement, dated December 21, 2022, by and between Qualigen Therapeutics, Inc. and Alpha Capital Anstalt Â 8-K Â 001-37428 Â 10.1 Â 12/22/2022 Â Â Â Â Â Â Â Â Â Â 10.18 Â 8% Senior Convertible Debenture Due December 22, 2025 in favor of Alpha Capital Anstalt Â 8-K Â 001-37428 Â 10.2 Â 12/22/2022 Â Â Â Â Â Â Â Â Â Â 10.19 Â Registration Rights Agreement, dated December 22, 2022, by and between Qualigen Therapeutics, Inc. and Alpha Capital Anstalt Â 8-K Â 001-37428 Â 10.3 Â 12/22/2022 Â II-6 Â Â 10.20+ Â Letter to Michael Poirier, dated January 13, 2023, regarding compensatory changes Â 10-K Â 001-37428 Â 10.31 Â 5/2/2023 Â Â Â Â Â Â Â Â Â Â 10.21+ Â Letter to Amy Broidrick, dated January 13, 2023, regarding compensatory changes Â 10-K Â 001-37428 Â 10.32 Â 5/2/2023 Â Â Â Â Â Â Â Â Â Â 10.22+ Â Letter to Tariq Arshad, dated January 13, 2023, regarding compensatory changes Â 10-K Â 001-37428 Â 10.33 Â 5/2/2023 Â Â Â Â Â Â Â Â Â Â 10.23 Â Amendment No. 1 with regard to Securities Purchase Agreement dated

December 5, 2023 with Alpha Capital Anstalt Å 8-K Å 001-37428 Å 10.1 Å 12/7/2023 Å Å Å Å Å Å Å Å Å 10.24 Å Amendment and Settlement Agreement dated July 19, 2023 with NanoSynex, Ltd. Å 8-K Å 001-37428 Å 10.1 Å 7/26/2023 Å Å Å Å Å Å Å Å Å Å 10.25+ Å Separation Agreement and General Release dated June 20, 2023 with Amy Broidrick Å 10-Q Å 001-37428 Å 10.1 Å 8/14/2023 Å Å Å Å Å Å Å Å Å Å 10.26 Å Securities Purchase Agreement, dated February 26, 2024, by and between Qualigen Therapeutics, Inc. and Alpha Capital Anstalt Å 8-K Å 001-37428 Å 10.1 Å 2/27/2024 Å Å Å Å Å Å Å Å Å Å 10.27 Å 8% Convertible Debenture Due December 31, 2024 in favor of Alpha Capital Anstalt Å 8-K Å 001-37428 Å 10.2 Å 2/27/2024 Å Å Å Å Å Å Å Å Å Å 10.28 Å Option Exercise, dated April 11, 2024, by Yi Hua Chen, agreed to by Alpha Capital Anstalt and by Qualigen Therapeutics, Inc. Å 8-K Å 001-37428 Å 10.1 Å 4/16/2024 Å Å Å Å Å Å Å Å Å Å 10.29 Å 8% Convertible Debenture due December 31, 2024 in favor of Yi Hua Chen Å 8-K Å 001-37428 Å 10.2 Å 4/16/2024 Å Å Å Å Å Å Å Å Å Å 10.30 Å Co-Development Agreement, dated April 11, 2024, between Qualigen Therapeutics, Inc. and Marizyme, Inc. Å 8-K Å 001-37428 Å 10.5 Å 4/16/2024 Å Å Å Å Å Å Å Å Å Å 10.31* Å Form of Lock-Up Agreement Å 10.32* Å Consulting Agreement, between the Company and IR Agency, LLC Å 10.33 Å Director Agreement dated October 8, 2024 between the Company and Braeden Lichti Å 8-K Å 001-37428 Å 10.1 Å 10/9/2024 Å Å Å Å Å Å Å Å Å Å 14.1 Å Code of Business Conduct and Ethics Å 8-K Å 001-37428 Å 14.1 Å 5/29/2020 Å Å Å Å Å Å Å Å Å Å 21.1 Å Subsidiaries of the Registrant Å 10-K Å Å 001-37428 Å Å 21.1 Å Å 4/8/2024 Å Å Å Å Å Å Å Å Å Å 23.1* Å Consent of Baker Tilly US, LLP, independent registered public accounting firm Å 23.2* Å Consent of Sichenzia Ross Ference Carmel LLP (included in Exhibit 5.1) Å 24.1** Å Power of Attorney Å S-1 Å 333-272623 Å 24.1 Å 6/13/2023 Å Å Å Å Å Å Å Å Å Å 97.1 Å Clawback Policy Å 10-K Å 001-37428 Å 97.1 Å 4/8/2024 Å Å Å Å Å Å Å Å Å Å 107* Å Filing Fee Table Å Å Å Å Å Å Å Å Å Å * Filed herewith. ** Previously filed. *** To be filed by amendment. + Indicates management contract or compensatory plan or arrangement. Å II-7 Å Å Item 17. Undertakings Å (a) The undersigned registrant hereby undertakes that: Å (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: Å (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933; Å (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; Å (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; Å provided, however, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement. Å (2) That, for the purpose of determining any liability under the Securities Act of 1933, 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. Å (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. Å (4) That, for the purpose of determining liability under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: Å (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424 (Å§230.424 of this chapter); Å II-8 Å Å (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; Å (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and Å (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser. Å (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Å (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions referenced in Item 14 of this Registration Statement, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue. Å (i) The undersigned registrant hereby undertakes that: Å (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective. Å (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona

file offering thereof. **II-9 SIGNATURES** Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Carlsbad, State of California, on October 24, 2024. **Qualigen Therapeutics, Inc.** **By: /s/ Kevin A. Richardson II** **Kevin A. Richardson II** Chairman of the Board, Interim Chief Executive Officer, Interim Chief Financial Officer Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities and on the dates indicated: **Signature Title Date** **/s/ Kevin A. Richardson II** Chairman of the Board, Interim Chief Executive Officer, Interim Chief Financial Officer **October 24, 2024** **Kevin A. Richardson II** (Principal Executive Officer; Principal Financial Officer and Accounting Officer) **/s/ Campbell Becher** Director **October 24, 2024** **Campbell Becher** **/s/ Braeden Lichti** Director **October 24, 2024** **Braeden Lichti** **/s/ Robert B. Lim** Director **October 24, 2024** **Robert B. Lim** **/s/ Cody Price** Director **October 24, 2024** **Cody Price** **By: /s/ Kevin A. Richardson II** **Kevin A. Richardson II** Attorney-in-fact **II-10 EX-1.1 2 ex1-1.htm** **Exhibit 1.1** **Placement Agency Agreement** **October [â—], 2024** **Qualigen Therapeutics, Inc.** 5857 Owens Avenue, Suite 300 Carlsbad, California 92008 Attn: Kevin Richardson II, Interim Chief Executive Officer **Dear Mr. Richardson:** This letter (the “Agreement”) constitutes the agreement between Univest Securities, LLC, as placement agent (the “Placement Agent”), and Qualigen Therapeutics, Inc., a Delaware corporation (the “Company”), that the Placement Agent shall serve as the placement agent for the Company, on a reasonable “best efforts” basis, in connection with the proposed placement (the “Placement”) of shares (each a “Share” and, collectively, the “Shares”) of the Company’s common stock, par value \$0.001 per share (the “Common Stock”) or pre-funded warrants to purchase shares of Common Stock (the “Pre-Funded Warrants”, collectively with the Shares, the “Securities”) in lieu thereof, depending on the beneficial ownership percentage of the purchaser of the Common Stock following its purchase in the Placement. The Securities shall be offered and sold under the Company’s registration statement on Form S-1 (File No. 333-[â—]) (the “Registration Statement”). The Securities actually placed by the Placement Agent are referred to herein as the “Placement Agent Securities.” The terms of the Placement shall be mutually agreed upon by the Company and the purchasers (each, a “Purchaser” and collectively, the “Purchasers”); provided, however, that nothing herein shall obligate the Company to issue any Securities or complete the Placement. 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. 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. Certain affiliates of the Placement Agent may participate in the Placement by purchasing some of the Placement Agent Securities. The sale of Placement Agent Securities to certain Purchasers will be evidenced by a securities purchase agreement (the “Purchase Agreement”) between the Company and each such Purchaser, in a form reasonably acceptable to the Company and the Purchasers. Capitalized terms that are not otherwise defined herein have the meanings given to such terms in the Purchase Agreement. Prior to the signing of any Purchase Agreement, officers of the Company will be available to answer inquiries from prospective Purchasers. **SECTION 1. REPRESENTATIONS AND WARRANTIES OF THE COMPANY; COVENANTS OF THE COMPANY.** (A) Representations of the Company. With respect to the Placement Agent Securities, each of the representations and warranties (together with any related disclosure schedules thereto) and covenants 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 date of this Agreement and as the Closing Date, hereby made to, and in favor of, the Placement Agent. In addition to the foregoing, the Company represents and warrants that there are no affiliations with any FINRA member firm among the Company’s officers, directors or, to the knowledge of the Company, any five percent (5.0%) or greater stockholder of the Company, except as set forth in the Purchase Agreement and SEC Reports. **1 (B) Covenants of the Company.** (i) The Company covenants and agrees to continue to retain (i) a firm of independent PCAOB registered public accountants for a period of at least three (3) years after the Closing Date and (ii) a competent transfer agent with respect to Common Stock for a period of two (2) years after the Closing Date. Furthermore, the Company covenants and agrees that for ninety (90) days after the closing date of the Placement, the Company shall be restricted from issuing certain securities pursuant to the terms of Section 4.10 of the Purchase Agreement. (ii) The Company and the Placement Agent agree that for a period of twelve (12) months from the closing date of the Placement, the Placement Agent shall be entitled to compensation commensurate with those set forth under Section 3 hereunder, from the sale of any equity, debt and/or equity derivative instruments to any investor actually introduced by the Placement Agent to the Company during the period between the date of that certain engagement letter dated October 1, 2024, by and between the Company and the Placement Agent, and the closing of the Placement (each, a “Tail Financing”), and such Tail Financing is consummated at any time within the twelve (12) month period from the closing date of the Placement. (iii) The Company and the Placement Agent agree that for a period of eighteen (18) months from the closing date of the Placement, the Company grants the Placement Agent the right to provide investment banking services to the Company on an exclusive basis in the matters below, for which investment banking services are sought by the Company (such right, the “Right of First Refusal”), which right is exercisable in the Placement Agent’s sole discretion. For these purposes, investment banking services shall include, (a) acting as lead or joint-lead manager for any underwritten public offering; (b) acting as lead or joint book-runner and/or lead or joint placement agent, initial purchaser in connection with any private offering of securities of the Company; and (c) acting as financial advisor in connection with any sale or other transfer by the Company, directly or indirectly, of a majority or controlling portion of its capital stock or assets to another entity, any purchase or other transfer by another entity, directly or indirectly, of a majority or controlling portion of the capital stock or assets of the Company, and any merger or consolidation of the Company with another entity. The Placement Agent shall notify the Company of its intention to exercise the Right of First Refusal within 15 business days following notice in writing by the Company. Any decision by the Placement Agent to act in any such capacity shall be contained in separate agreements, which agreements would contain, among other matters, provisions for customary fees for transactions of similar size and nature, as may be mutually agreed upon, and indemnification of the Placement Agent and shall be subject to general market conditions. If the Placement Agent declines to exercise the Right of First Refusal, the Company shall have the right to retain any other person or persons to provide such services on terms and conditions which are not more favorable to such other person or persons than the terms declined by the Placement Agent. The Right of First Refusal granted hereunder may be terminated by the Company for “Cause,” which shall mean a

material breach by the Placement Agent of this Agreement or of a material failure by the Placement Agent to provide the services as contemplated by this Agreement. The services provided by the Placement Agent hereunder are solely for the benefit of the Company and are not intended to confer any rights upon any persons or entities not a party hereto (including, without limitation, securityholders, employees or creditors of the Company) as against the Placement Agent or its directors, officers, agents and employees.

SECTION 2. REPRESENTATIONS OF THE PLACEMENT AGENT. The Placement Agent represents and warrants that it (i) is a member in good standing of the Financial Industry Regulatory Authority ("FINRA"), (ii) is registered as a broker/dealer under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the securities laws of each state in which an offer or sale of Placement Securities is made (unless exempted from the respective state's broker-dealer registration requirements), (iii) is licensed as a broker/dealer under the laws of the United States of America, applicable to the offers and sales of the Placement Agent 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. COMPENSATION. In consideration of the services to be provided for hereunder, the Company shall pay to the Placement Agent and/or its respective designees a cash fee equal to eight (8.0%) of the gross proceeds from the total amount of Placement Agent Securities sold in the Placement (the "Cash Fee"). The Cash Fee shall be paid on the Closing Date. The Company shall not be required to pay the Placement Agent any fees or expenses except for the Cash Fee and the reimbursement of accountable legal fees and other reasonable and documented out-of-pocket expenses incurred by the Placement Agent in connection with the transaction in the amount of up to \$30,000, subject to compliance with FINRA Rule 5110(f)(2)(D); provided, that this sentence in no way limits or impairs the indemnification or contribution provisions contained herein. The Placement Agent reserves the right to reduce any item of compensation or adjust the terms thereof as specified herein in the event that a determination shall be made by FINRA to the effect that the Placement Agent's aggregate compensation is in excess of FINRA Rules or that the terms thereof require adjustment.

SECTION 4. INDEMNIFICATION.

(A) To the extent permitted by law, with respect to the Placement Agent Securities, the Company shall indemnify the Placement Agent and its affiliates, stockholders, directors, officers, employees, members, and controlling persons (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) against all losses, claims, damages, expenses and liabilities, as the same are incurred (including the reasonable fees and expenses of counsel), relating to or arising out of its activities hereunder, its status, title or role as Placement Agent or pursuant to this Agreement, except to the extent that any losses, claims, damages, expenses or liabilities (or actions in respect thereof) are found in a final judgment (not subject to appeal) by a court of law to have resulted primarily and directly from the Placement Agent's fraud, willful misconduct or gross negligence in performing the services described herein. Notwithstanding anything set forth herein to the contrary, the Company agrees to indemnify the Placement Agent and its counsel, Blank Rome LLP, to the fullest extent set forth in this Section 4, against any and all claims asserted by any person or entity alleging that the Placement Agent was not permitted or entitled to act as a placement agent herein, or that the Company was not permitted to hire or retain the Placement Agent herein, including but not limited to any claims arising out of any purported right of first refusal another person or entity claims to have to act as a placement agent or any similar role with respect to the Company or its securities.

(B) Promptly after receipt by the Placement Agent of notice of any claim or the commencement of any action or proceeding with respect to which the Placement Agent is entitled to indemnity hereunder, the Placement Agent will notify the Company in writing of such claim or of the commencement of such action or proceeding, but failure to so notify the Company shall not relieve the Company from any obligation it may have hereunder, except and only to the extent such failure results in the forfeiture by the Company of substantial rights and defenses. If the Company so elects or is requested by the Placement Agent, the Company will assume the defense of such action or proceeding and will employ its own counsel reasonably satisfactory to the Placement Agent and will pay the reasonable fees and expenses of such counsel. Notwithstanding the preceding sentence, the Placement Agent will be entitled to employ its own counsel separate from counsel for the Company and from any other party in such action if counsel for the Placement Agent reasonably determines that it would be inappropriate under the applicable rules of professional responsibility for the same counsel to represent both the Company and the Placement Agent. In such event, the reasonable fees and disbursements of no more than one (1) such separate counsel will be paid by the Company, in addition to fees of local counsel. The Company will have the right to settle the claim, action or proceeding, provided that the Company shall not settle any such claim, action or proceeding without the prior written consent of the Placement Agent, which may not be unreasonably withheld. The Company shall not be liable for any settlement of any action effected without its written consent, which will not be unreasonably withheld.

(C) The Company agrees to notify the Placement Agent promptly of the assertion against it or any other person of any claim or the commencement of any action or proceeding relating to a transaction contemplated by this Agreement.

(D) If for any reason the foregoing indemnity is unavailable to the Placement Agent or insufficient to hold the Placement Agent harmless, then the Company shall contribute to the amount paid or payable by the Placement Agent as a result of such losses, claims, damages or liabilities in such proportion as is appropriate to reflect not only the relative benefits received by the Company on the one hand and the Placement Agent on the other, but also the relative fault of the Company on the one hand and the Placement Agent on the other that resulted in such losses, claims, damages or liabilities, as well as any relevant equitable considerations. The amounts paid or payable by a party in respect of losses, claims, damages and liabilities referred to above shall be deemed to include any legal or other fees and expenses incurred in defending any litigation, proceeding or other action or claim. Notwithstanding the provisions hereof, the Placement Agent's share of the liability hereunder shall not be in excess of the amount of fees actually received, or to be received, by the Placement Agent under this Agreement.

(E) These indemnification provisions of this Section 4 shall remain in full force and effect whether or not the transaction contemplated by this Agreement is completed and shall survive the termination of this Agreement, and shall be in addition to any liability that the Company might otherwise have to any indemnified party under this Agreement or otherwise.

SECTION 5. ENGAGEMENT TERM. The Placement Agent's engagement hereunder will be exclusive until the earlier of (i) January 10, 2025 and (ii) the Closing Date. The date of termination of this Agreement is referred to herein as the "Termination Date." In the event, however, in the course of the Placement Agent's performance of due diligence it deems, it necessary to terminate the engagement, the Placement Agent may do so prior to the Termination Date. The Company may elect to terminate the engagement hereunder for any reason prior to the Termination Date but will remain responsible for fees pursuant to Section 3 hereof with respect to the Placement Agent

Securities if sold in the Placement. Notwithstanding anything to the contrary contained herein, the provisions concerning the Company's obligation to pay any fees actually earned pursuant to Section 3 hereof and the provisions concerning confidentiality, indemnification and contribution contained herein will survive any expiration or termination of this Agreement. If this Agreement is terminated prior to the completion of the Placement, all fees due to the Placement Agent shall be paid by the Company to the Placement Agent on or before the Termination Date (in the event such fees are earned or owed as of the Termination Date). The Placement Agent agrees not to use any confidential information concerning the Company provided to the Placement Agent by the Company for any purposes other than those contemplated under this Agreement.

SECTION 6. PLACEMENT AGENT INFORMATION. The Company agrees that any information or advice rendered by the Placement Agent in connection with this engagement is for the confidential use of the Company only in its evaluation of the Placement and, except as otherwise required by law, the Company will not disclose or otherwise refer to the advice or information in any manner without the Placement Agent's prior written consent.

SECTION 7. NO FIDUCIARY RELATIONSHIP. This Agreement does not create, and shall not be construed as creating rights enforceable by any person or entity not a party hereto, except those entitled hereto by virtue of the indemnification provisions hereof. The Company acknowledges and agrees that the Placement Agent is not and shall not be construed as a fiduciary of the Company and shall have no duties or liabilities to the equity holders or the creditors of the Company or any other person by virtue of this Agreement or the retention of the Placement Agent hereunder, all of which are hereby expressly waived.

SECTION 8. CLOSING. The obligations of the Placement Agent, and the closing of the sale of the Placement Agent Securities hereunder 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 in the Purchase Agreement, and to each of the following additional terms and conditions, except as otherwise disclosed to and acknowledged and waived by the Placement Agent:

(A) All corporate proceedings and other legal matters incident to the authorization, form, execution, delivery and validity of each of this Agreement, the Placement Agent Securities, and all other legal matters relating to this Agreement and the transactions contemplated hereby with respect to the Placement Agent Securities have been completed or resolved in a manner reasonably satisfactory in all material respects to the Placement Agent.

(B) The Placement Agent has received the opinion and negative assurance statement of Sichenzia Ross Ference Carmel LLP, U.S. counsel for the Company, addressed to the Placement Agent, dated as of the Closing Date, and in form and substance reasonably satisfactory to the Placement Agent and the Placement Agent's counsel.

(C) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date, in the Placement Agent's sole judgment after consultation with the Company, there shall not have occurred any Material Adverse Effect or any material adverse change or development involving a prospective material adverse change in the condition or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement, Preliminary Prospectus and Final Prospectus ("Material Adverse Change").

(D) The Placement Agent has received customary certificates of the Company's Chief Executive 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.

(E) The Common Stock, including the Shares and the Warrant Shares, shall be registered under the Exchange Act and, as of the Closing Date, the Shares and the Warrant Shares shall be listed and admitted and authorized for trading on the Trading Market or other applicable U.S. national exchange and satisfactory evidence of such action shall have been provided to the Placement Agent. 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 Trading Market or other applicable U.S. national exchange, nor has the Company received any information suggesting that the Commission or the Trading Market or other U.S. applicable national exchange is contemplating terminating such registration or listing.

(F) The Securities have been registered under the Securities Act as of the Closing Date, and the Placement Agent has received reasonably satisfactory evidence of such registration. The Company has not taken any action designed to, or likely to have the effect of terminating the registration of the Securities under the Securities Act. The Company has not received any information suggesting that the Commission or other regulatory authority is contemplating terminating such registrations.

(G) No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would, as of the Closing Date, prevent the issuance or sale of the Placement Agent Securities or materially and adversely affect or potentially and adversely affect the business or operations of the Company; and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued as of the Closing Date which would prevent the issuance or sale of the Placement Agent Securities or materially and adversely affect or potentially and adversely affect the business or operations of the Company.

(H) The Placement Agent shall have received, and the Company shall have caused to be delivered to the Placement Agent, a cold comfort letter and a bring-down comfort letter, respectively, from Baker Tilly, dated as of the date hereof and the Closing Date, respectively, in form and substance satisfactory to the Placement Agent. The letter shall not disclose any change in the condition (financial or other), earnings, operations, business or prospects of the Company from that set forth in the Registration Statement or the applicable Prospectus or prospectus supplement, which, in the Placement Agent's sole judgment, is material and adverse and that makes it, in the Placement Agent's sole judgment, impracticable or inadvisable to proceed with the Placement of the Securities as contemplated by such Prospectus.

(I) The Company shall have entered into a Purchase Agreement with certain of the several Purchasers of the Placement Agent Securities, and such agreements shall be in full force and effect and contain representations, warranties and covenants of the Company as agreed upon between the Company and the Purchasers.

(J) FINRA shall have raised no objection to the fairness and reasonableness of the terms and arrangements of this Agreement. In addition, the Company shall, if requested by the Placement Agent, make or authorize Placement Agent's counsel to make on the Company's behalf, any filing with the FINRA Corporate Financing Department pursuant to FINRA Rule 5110 with respect to the Placement and pay all filing fees required in connection therewith.

(K) The Placement Agent shall have received an executed lock-up agreement from each of the Company's executive officers and directors prior to the Closing Date.

(L) The Placement Agent shall have received an executed

FINRA questionnaire from each of the Company and the Company's executive officers, directors and 5% or greater securityholders. (M) On or before the Closing Date, the Placement Agent and counsel for the Placement Agent have received such information and documents as they may reasonably require for the purposes of enabling them to pass upon the issuance and sale of the Placement Agent Securities as contemplated herein, or in order to evidence the accuracy of any of the representations and warranties of the Company, or the satisfaction of any of the conditions or agreements, herein contained. If any of the conditions specified in this Section 8 shall not have been fulfilled when and as required by this Agreement, all obligations of the Placement Agent hereunder may be cancelled by the Placement Agent at, or at any time prior to, the Closing Date. Notice of such cancellation shall be given to the Company in writing or orally. Any such oral notice shall be confirmed promptly thereafter in writing.

SECTION 9. GOVERNING LAW. This Agreement will be governed by, and construed in accordance with, the laws of the State of New York applicable to agreements made and to be performed entirely in such State, without regard to its conflict of laws principles. This Agreement may not be assigned by either party without the prior written consent of the other party. This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns. Any right to trial by jury with respect to any dispute arising under this Agreement or any transaction or conduct in connection herewith is waived. Any dispute arising under this Agreement may be brought into the courts of the State of New York or into the Federal Court located in New York, New York and, by execution and delivery of this Agreement, the Company hereby accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of aforesaid courts. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by delivering a copy thereof via overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. If either party shall commence an action or proceeding to enforce any provisions of this Agreement, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorney's fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

SECTION 10. ENTIRE AGREEMENT/MISCELLANEOUS. This Agreement embodies the entire agreement and understanding between the parties hereto, and supersedes all prior agreements and understandings, relating to the subject matter hereof. If any provision of this Agreement is determined to be invalid or unenforceable in any respect, such determination will not affect such provision in any other respect or any other provision of this Agreement, which will remain in full force and effect. This Agreement may not be amended or otherwise modified or waived except by an instrument in writing signed by both the Placement Agent and the Company. The representations, warranties, agreements and covenants contained herein shall survive the Closing Date of the Placement and delivery of the Placement Agent Securities. 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 the other party, it being understood that both parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or a .pdf format file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or .pdf signature page were an original thereof.

SECTION 11. NOTICES. Any and all notices or other communications or deliveries required or permitted to be provided hereunder must be in writing and will be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is sent to the email address specified on the signature pages attached hereto prior to 6:30 p.m. (New York City time) on a Business Day, (b) the next Business Day after the date of transmission, if such notice or communication is sent to the email address on the signature pages attached hereto on a day that is not a Business Day or later than 6:30 p.m. (New York City time) on any Business Day, (c) the third business day following the date of mailing, if sent by U.S. internationally recognized air 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 are as set forth on the signature pages hereto.

SECTION 12. PRESS ANNOUNCEMENTS. The Company agrees that the Placement Agent shall, on and after the Closing Date, have the right to reference the Placement and the Placement Agent's role in connection therewith in the Placement Agent's marketing materials and on its website and to place advertisements in financial and other newspapers and journals, in each case at its own expense.

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

6 Please confirm that the foregoing correctly sets forth our agreement by signing and returning to the Placement Agents the enclosed copy of this Agreement.

Very truly yours,

UNIVEST SECURITIES, LLC

By: Name: Bradley Richmond Title: Chief Operating Officer and Head of Investment Banking

Address for notice: 75 Rockefeller Plaza, 18C New York, New York 10019

Attn: Bradley Richmond, Chief Operating Officer and Head of Investment Banking

Email: brichmond@univest.us

[Signature Page to Placement Agency Agreement.]

7 Accepted and Agreed to as of the date first written above:

QUALIGEN THERAPEUTICS, INC.

By: Name: Kevin Richardson II Title: Interim Chief Executive Officer and Interim Chief Financial Officer

Address for notice: 5857 Owens Avenue, Suite 300 Carlsbad, California 92008

Attention: Kevin Richardson II, Interim Chief Executive Officer and Interim Chief Financial Officer

Email: [a—]

[Signature Page to Placement Agency Agreement.]

8 EX-4.15 3 ex4-15.htm Exhibit 4.15 FORM OF PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK QUALIGEN THERAPEUTICS, INC.

Warrant Shares: [] Initial Exercise Date: []

THIS PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK (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") until this Warrant is exercised in full (the "Termination Date"), but not thereafter, to subscribe for and purchase from Qualigen Therapeutics, 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. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

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

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (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 VWAP of the Common Stock for such date (or the nearest preceding date)

on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of 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. "SEC" means the United States Securities and Exchange Commission. "Common Stock" means the common stock of the Company, par value \$0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. "Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. "1" 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. "Purchase Agreement" shall mean that certain Securities Purchase Agreement, dated October [], 2024, among the Company and the purchasers signatory thereto. "Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-[]-[]). "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. "Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. "Trading Day" means a day on which the Common Stock is traded on a Trading Market. "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing). "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. "Warrants" means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement. 2 Section 2. Exercise. (a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto as Exhibit A (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the number of 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 purchasable hereunder and the Warrant has been exercised in full, at which time 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 purchasable hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder by the number of Warrant Shares equal to the applicable number of Warrant Shares purchased in connection with such partial exercise. 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. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 9:00 a.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Purchase Agreement, the Company agrees to deliver, or cause to be delivered, the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date, and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date. 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 will be less than the amount stated on the face hereof. For the avoidance of doubt, there is no circumstance that would require the Company to net cash settle the warrants. (b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.001 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 \$0.001 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, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per Warrant Share under this Warrant shall be \$0.001, subject to adjustment hereunder (the "Exercise Price"). (c) Cashless Exercise. Notwithstanding anything to the contrary set forth herein, if at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of, the Warrant Shares to the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall

be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing $[(A-B) (X)]$ by (A), where: \hat{A} 3 \hat{A} (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of regular trading hours (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during regular trading hours on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of regular trading hours on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of regular trading hours on such Trading Day; \hat{A} (B) = the Exercise Price, as adjusted hereunder; and \hat{A} (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. \hat{A} If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c). \hat{A} (d) Mechanics of Exercise. \hat{A} i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to, or resale of, the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of the Warrant Shares, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares set forth in the Notice of Exercise to the address specified by the Holder in such Notice of Exercise by the date that is the earliest of (i) three (3) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company, and (iii) 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) three (3) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder in cash for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after 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 (the "Transfer Agent") that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. 4 \hat{A} 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. \hat{A} iii. Rescission Rights. Except in connection with an exercise on the Initial Exercise Date, 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. \hat{A} iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the Warrant Shares 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 Warrants 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 satisfactory to the Company with respect to 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 Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof. \hat{A} v. No Fractional Shares or Scrip. No fractional Warrant Shares or scrip representing fractional Warrant Shares shall be issued upon the exercise of this Warrant. As to any fraction of a Warrant Share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall in lieu of the issuance of such fractional Warrant Share round up to the next whole Warrant Share. \hat{A} vi. Charges, Taxes and Expenses. The issuance and delivery 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, the Notice of Exercise shall be accompanied by the Assignment Form, attached hereto as Exhibit B, 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 and this Warrant shall be surrendered to the Company and, if any portion of this Warrant remains unexercised, a new Warrant in the form hereof shall be delivered to the assignee. 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. Â 5

Â Â 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. Â (e) Holderâ€™s Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise all or any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance upon exercise as set forth on the applicable Notice of Exercise, the Holder (together with (i) the Holderâ€™s Affiliates, (ii) any other Persons acting as a group together with the Holder or any of the Holderâ€™s Affiliates, and (iii) any other Persons whose beneficial ownership of shares of Common Stock would or could be aggregated with the Holderâ€™s for the purposes of Section 13(d) (such Persons, â€œAttribution Partiesâ€)), 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 the Warrant Shares 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 Holderâ€™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 Companyâ€™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 â€œBeneficial Ownership Limitationâ€ 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 Warrant Shares 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 share of Common Stock outstanding immediately after giving effect to the issuance of Warrant Shares 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. If the Warrant is unexercisable as a result of the Holderâ€™s Beneficial Ownership Limitation, no alternate consideration is owed to the Holder. Â 6 Â Â Section 3. Certain Adjustments. Â (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 Warrant Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares 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 remains 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 reclassification. Â (b) [RESERVED] Â (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, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). (d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). 7 (e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company (or any Subsidiary), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of the Company's 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 of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of shares of Common Stock or any compulsory share exchange pursuant to which 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 of the Company (not including any shares of Common Stock held by the other Person or Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction (and in the same proportion), at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall 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. 8 (f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share of Common Stock, 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 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 declares a dividend (or any other distribution in whatever form) on the shares of Common Stock, (B) the Company declares a special nonrecurring cash dividend on or a redemption of the shares of Common Stock, (C) the Company authorizes the granting to all holders of the shares of Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any shareholders of the Company is required in connection with a Fundamental Transaction, or (E) the Company authorizes the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the 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 Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein. Section 4. Transfer of Warrant. (a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto as Exhibit B 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. 9 (b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto. (c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. Section 5. Miscellaneous. (a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant. (b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate. (c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a 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 underlying 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, and the Warrant Shares, delivered, as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares underlying this Warrant, 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). 10 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 shares of Common Stock 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 shares of Common Stock 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 if 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. 11 (j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate. (k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares. (l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, 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. (o) Currency. All dollar amounts referred to in this Warrant are in United States Dollars ("U.S. Dollars"). All amounts owing under this Warrant shall be paid in U.S. Dollars. All amounts denominated in other currencies shall be converted in the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Warrant, the U.S. Dollar exchange rate as published in the Wall Street Journal (NY edition) on the relevant date of calculation.

***** (Signature Page Follows) 12 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. QUALIGEN THERAPEUTICS, INC. By: Kevin A. Richardson II Title: Interim Chief Executive Officer EXHIBIT A NOTICE OF EXERCISE TO: QUALIGEN THERAPEUTICS, INC. (1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any. (2) Payment shall take the form of (check applicable box): ☐ in lawful money of the United States; or ☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c). (3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below: The Warrant Shares shall be delivered to the following DWAC Account Number: [SIGNATURE OF HOLDER] Name of Investing Entity Signature of Authorized Signatory Name of Authorized Signatory Title of Authorized Signature Date 14 EXHIBIT B ASSIGNMENT FORM (To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.) FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to Name:

(Please Print) Address:
(Please Print) Phone Number:
Email Address:
Dated:
Holder's Signature:
Holder's Address:

SECURITIES PURCHASE AGREEMENT Â This SECURITIES PURCHASE AGREEMENT (this "Agreement") is dated as of October [], 2024, between Qualigen Therapeutics, 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"). Â WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to an effective registration statement under the Securities Act (as defined below), the Company desires to issue and sell to each Purchaser, and each Purchaser, severally and not jointly, desires to purchase from the Company, securities of the Company as more fully described in this Agreement. Â 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: Â

Section 1. DEFINITIONS Â

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: Â

Â "Acquiring Person" shall have the meaning ascribed to such term in Section 4.5. Â

Â "Action" shall have the meaning ascribed to such term in Section 3.1(j). Â

Â "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. Â

Â "Applicable Laws" shall have the meaning ascribed to such term in Section 3.1(n). Â

Â "Authorization" shall have the meaning ascribed to such term in Section 3.1(n). Â

Â "BHCA" shall have the meaning ascribed to such term in Section 3.1(mm). Â

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

Â "Business Day" means any day other than Saturday, Sunday, or other day on which banking institutions in the State of New York are authorized or required by law to remain closed. Â

Â "Closing" means the closing of the purchase and sale of the Securities pursuant to Section 2.1. Â

Â "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 at the Closing and (ii) the Company's obligations to deliver the Securities, in each case, at the Closing have been satisfied or waived, but in no event later than the second (2nd) Trading Day following the date hereof. Â

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

Â "Common Stock" means the common stock of the Company, par value \$0.001 per share. Â

Â "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. Â

Â "Company Counsel" means Sichenzia Ross Ference Carmel LLP with offices located at 1185 Avenue of the Americas, 31st floor, New York, NY 10036. Â

Â "Debentures" (or each, a "Debenture"): (i) that certain 8% Senior Convertible Debenture in the aggregate principal amount of \$550,000 issued by the Company to Alpha on February 26, 2024, a copy of which was filed with the Commission on February 27, 2024 as Exhibit 10.2 to the Company's Current Report on Form 8-K; and (ii) that certain 8% Senior Convertible Debenture in the aggregate principal amount of \$1,100,000 issued by the Company to Yi Hua Chen (Chen) on April 11, 2024, a copy of which was filed with the Commission on April 16, 2024 as Exhibit 10.2 to the Company's Current Report on Form 8-K. Â

Â "Disclosure Schedules" means the Disclosure Schedules of the Company delivered concurrently herewith. Â

Â "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. Â

Â "DVP" shall have the meaning ascribed to such term in Section 2.1(v). Â

Â "EDGAR" means the Commission's Electronic Data Gathering, Analysis and Retrieval System. Â

Â "Evaluation Date" shall have the meaning ascribed to such term in Section 3.1(r). Â

Â "Environmental Laws" shall have the meaning ascribed to such term in Section 3.1(m). Â

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

2 Â "Exempt Issuance" means the issuance of (a) shares of Common Stock, restricted share units or options, or other equity awards, to employees, officers, or directors of the Company pursuant to any share, option or other equity incentive plan in existence as of the date hereof; (b) shares of Common Stock upon the exercise or exchange of or conversion of securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement (including without limitation upon conversion or redemption of the Debentures), provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities (for the avoidance of doubt, the waiver by either Debenture holder of any provisions of the Debentures, including the "Equity Conditions,"); (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith during the prohibition period in Section 4.10(a) herein, and provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities (for avoidance of doubt, securities issued to a venture arm of a strategic investor shall be deemed an "Exempt Issuance"); (d) issuances of shares of Common Stock to consultants or vendors of the Company, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights; (e) issuances of shares of Common Stock to existing holders of the Company's securities in compliance with the terms of agreements entered into with, or instruments issued to, such holders, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights (other than shares of Common Stock issuable to holders of the Company's outstanding warrants upon the exercise of such warrants, as registered under the Registration Statement on Form S-1 (File No. 333-[]), provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities; and (f) shares of Common Stock issuable upon conversion or redemption of any outstanding convertible

debenture, including pursuant to the Company's election to pay the Monthly Redemption Amount of the Debentures in shares of Common Stock (whether or not the holders of the Debentures has waived the "Equity Conditions" to such payment in shares of Common Stock). "FCPA" means the Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder. "FDA" shall have the meaning ascribed to such term in Section 3.1(n). "FDCA" shall have the meaning ascribed to such term in Section 3.1(n). "Federal Reserve" shall have the meaning ascribed to such term in Section 3.1(mm). "FTC" shall have the meaning ascribed to such term in Section 3.1(n). "GAAP" means generally accepted accounting principles in the United States. "General Disclosure Package" means the Preliminary Prospectus, together with any Issuer Free Writing Prospectus relating to the Registration Statement. "Hazardous Materials" shall have the meaning ascribed to such term in Section 3.1(m). "Indebtedness" shall have the meaning ascribed to such term in Section 3.1(z). "Intellectual Property Rights" shall have the meaning ascribed to such term in Section 3.1(p). "Issuer Free Writing Prospectus" shall have the meaning ascribed to such term in Section 3.1(f)(ii). "IT Systems and Data" shall have the meaning ascribed to such term in Section 3.1(jj). "Liens" means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction. "Lock-Up Agreement" means the Lock-Up Agreement, dated as of the date hereof, by and among the Company and the directors, officers and 5% stockholders of the Company, in the form of Exhibit B attached hereto. "Material Adverse Effect" shall have the meaning assigned to such term in Section 3.1(b). 3 "Material Permits" shall have the meaning ascribed to such term in Section 3.1(m). "Monthly Redemption Amount" shall have the meaning ascribed to such term in the Debentures. "Per Share Purchase Price" equals \$[], subject to adjustment for reverse and forward share splits, share dividends, share combinations and other similar transactions of shares of Common Stock that occur between the date hereof and the Closing Date. "Per Pre-Funded Warrant Purchase Price" equals \$0.001, subject to adjustment for reverse and forward share splits, share dividends, share combinations and other similar transactions relating to shares of Common Stock that occur after the date of this Agreement. "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 Agency Agreement" means the Placement Agency Agreement, dated as of the date hereof, by and among the Company and the Placement Agent, in the form of Exhibit C attached hereto. "Placement Agent" means Univest Securities, LLC. "Placement Agent Counsel" means Sullivan & Worcester LLP with offices located at 1251 Avenue of the Americas, 19th Floor, New York, New York 10020. "Pre-Funded Warrants" means the warrants delivered to the Purchasers at Closing in accordance with Section 2.2(a) hereof, which Pre-Funded Warrants shall be exercisable immediately upon issuance and shall expire when exercised in full, in the form of Exhibit A attached hereto. "Preliminary Prospectus" means the preliminary prospectus included in the Registration Statement at the time the Registration Statement is declared effective. "Proceeding" means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition) pending or, to the Company's knowledge, threatened in writing against or affecting the Company before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign). "Prospectus" means the final prospectus filed pursuant to the Registration Statement. "Purchaser Party" shall have the meaning ascribed to such term in Section 4.8. "Registration Statement" means the effective registration statement with the Commission on Form S-1 (File No. 333-[]), as amended, which registers the sale of the Securities and includes any Rule 462(b) Registration Statement. "Required Approvals" shall have the meaning ascribed to such term in Section 3.1(e). "Rule 144" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule. 4 "Rule 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule. "Rule 462(b) Registration Statement" means any registration statement prepared by the Company registering additional Securities, which was filed with the Commission on or prior to the date hereof and became automatically effective pursuant to Rule 462(b) promulgated by the Commission pursuant to the Securities Act. "SEC Reports" shall have the meaning ascribed to such term in Section 3.1(h). "Securities" means the Shares, the Pre-Funded Warrants, and the Warrant Shares. "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. "Shares" means the shares of Common Stock issued and issuable to each Purchaser pursuant to this Agreement. "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 or Pre-Funded Warrants (in lieu of Shares) 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. "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 shares of Common Stock are 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 Pre-Funded Warrant, the Lock-Up Agreements, the Placement Agency Agreement and all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder. "Transfer Agent" means the current transfer agent and registrar for the Common Stock, which is Equiniti Trust Company with an address of P.O. Box 64945, Saint Paul, Minnesota 55164-0945, and any successor transfer agent of the Company. "Variable Rate Transaction" shall have the meaning ascribed to such term in Section 4.10(b). "Warrant Shares" means the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants. 5 Section 2. 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, (i) the number of shares of Common Stock set forth under the heading "Subscription Amount" on the Purchaser's signature page hereto, at the Per Share Purchase Price,; 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 of Common Stock, such Purchaser may elect to purchase Pre-Funded Warrants in lieu of shares of Common Stock

in such manner to result in the full Subscription Amount being paid by such Purchaser to the Company. The "Beneficial Ownership Limitation" shall be 4.99% (or, at the election of the Purchaser, 9.99%) of the number of shares of Common Stock, in each case, outstanding immediately after giving effect to the issuance of the Securities 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 designees. The Company shall deliver to each Purchaser its respective Shares and Pre-Funded Warrants as determined pursuant to Section 2.2(a), and the Company and each Purchaser shall deliver the other items set forth in Section 2.2 at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.2 and 2.3, the Closing shall occur remotely via the exchange of documents and signatures or such other location as the parties 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 Depository 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). Unless otherwise directed by the Placement Agent, the Pre-Funded Warrants shall be issued to each Purchaser in originally signed form. 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 any Securities to be issued hereunder to such Purchaser at the Closing (collectively, the "Pre-Settlement Securities"), such Person shall, automatically hereunder (without any additional required actions by such Purchaser or the Company), be deemed to be a Purchaser under this Agreement unconditionally bound to purchase, and the Company shall be deemed unconditionally bound to sell, such Pre-Settlement Securities to such Person at the Closing; provided, that the Company shall not be required to deliver any Pre-Settlement Securities to such Purchaser prior to the Company's receipt of the Subscription Amount for such Pre-Settlement Securities hereunder; and provided, further, that the Company hereby acknowledges and agrees that the foregoing shall not constitute a representation or covenant by such Purchaser as to whether or not such Purchaser will elect to sell any Pre-Settlement Securities during the Pre-Settlement Period. The 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 9:00 a.m. (New York City time) on the Closing Date, which may be delivered at any time after the time of execution of this Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Closing Date and the Closing Date shall be the Warrant Share Delivery Date (as defined in the Pre-Funded Warrants) for purposes hereunder.

6 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) the Company's wire instructions, on Company letterhead and executed by the Company's Chief Executive Officer or Chief Financial Officer; (iii) subject to the provision of Section 2.1 that settlement of the Shares shall occur via DVP, 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 shares of Common Stock equal to the portion of such Purchaser's Subscription Amount divided by the Per Share Purchase Price, registered in the name of such Purchaser; (iv) 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 sum of the Per Pre-Funded Warrant Purchase Price plus the exercise price per Warrant Share underlying such Pre-Funded Warrants, subject to adjustment therein; (v) the Preliminary Prospectus and the Prospectus (which may be delivered in accordance with Rule 172 under the Securities Act); (vi) Pre-Funded Warrants, as applicable, with an exercise price equal to \$0.001 per share, subject to adjustment therein; (vii) the duly executed Lock-Up Agreements; (viii) a legal opinion and negative assurance statement of Company Counsel, in form reasonably acceptable to the Placement Agent, the Placement Agents Counsel and the Purchasers; (ix) an Officer's Certificate, in form and substance reasonably satisfactory to the Placement Agent and the Purchasers; (x) a Secretary's Certificate, in form and substance reasonably satisfactory to the Placement Agent and the Purchasers; (xi) a waiver by the holders of the Debentures waiving any rights to receive pre-notice of and participate in Subsequent Financings, as defined therein, piggyback registration rights, and provisions of the Debentures whereby a Subsequent Financing results in the maturing of such Debenture. (xii) a cold "comfort letter" and a bring-down "comfort letter", respectively, from Baker Tilly, dated as of the date hereof and the Closing Date, respectively, in form and substance satisfactory to the Placement Agent; (b) On or prior to the Closing Date, each Purchaser shall deliver or cause to be delivered to the Company, the following: (i) this Agreement duly executed by such Purchaser; and (ii) such Purchaser's Subscription Amount with respect to the Securities purchased by such Purchaser, which shall be made available for DVP settlement with the Company or its designees.

7 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 as of a specific date therein in which case they shall be accurate as of such date); (ii) all obligations, covenants and agreements of each Purchaser required to be performed at or prior to the Closing Date shall have been performed; and (iii) the delivery by each Purchaser of the items set forth in Section 2.2(b) of this Agreement. (b) The respective obligations of the Purchasers hereunder in connection with the Closing are subject to the following conditions being met: (i) the accuracy in all material respects (or, to the extent representations or warranties are qualified by materiality or Material Adverse Effect, in all respects) when made and on the Closing Date of the representations and warranties of the Company contained herein (unless as of a specific date therein in which case they shall be accurate 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 Trading Market, and, at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on any Trading Market, nor shall a banking moratorium have

been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of such Purchaser, makes it impracticable or inadvisable to purchase the Securities at the Closing. Â 8 Â SECTION 3.

REPRESENTATIONS AND WARRANTIES Â 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: Â (a) **Subsidiaries.** There are no direct and indirect subsidiaries (each, a “Subsidiary” and, collectively, the “Subsidiaries”) of the Company. The Company owns, directly or indirectly, all of the capital shares or other equity interests of each Subsidiary, free and clear of any Liens, except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, 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. 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 capital stock or equity interests, as applicable, of any Subsidiary, or contracts, commitments, understandings or arrangements by which any Subsidiary is or may become bound to issue capital stock or equity interests, as applicable. Â (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 are formed, in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective memorandum of association, articles of association, certificate or articles of incorporation, bylaws, operating agreement, or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, or (iii) a material adverse effect on the Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a “Material Adverse Effect”) and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. Â 9 Â (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. Â (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 memorandum of association, articles of association, certificate or articles of incorporation, bylaws, operating agreement, 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 (other than under the Debentures) (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect. Â (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) notices and/or application(s) to and approvals by each applicable Trading Market for the listing of the applicable Securities for trading thereon in the time and manner required thereby, and (iv) filings required by the Financial Industry Regulatory Authority (“FINRA”) (collectively, the “Required Approvals”). Â 10 Â (f) **Issuance of the Securities; Registration.** (i) The Shares and Warrant 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 non-assessable, free and clear of all Liens imposed by the Company. The Pre-Funded Warrants are duly authorized and, when issued in accordance with this Agreement, will be duly and validly issued, and free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized share capital 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 October [], 2024, including the Prospectus, and such amendments and supplements thereto as may have been required to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the 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 Preliminary Prospectus or the Prospectus with the Commission pursuant to Rule 424(b). At the time the Registration Statement and any amendments thereto became effective as determined under the Securities Act, at the date of this Agreement and at the Closing Date, the Registration Statement and any amendments thereto conformed and will conform in all material respects to the requirements of the Securities Act and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; and the Prospectus and any amendments or supplements thereto, at the time the Preliminary Prospectus, 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. Â (ii) Any "issuer free writing prospectus" (as defined in Rule 433 under the Securities Act) relating to the Securities is hereafter referred to as an "Issuer Free Writing Prospectus". Any reference herein to the Preliminary Prospectus and the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein as of the date of filing thereof; and any reference herein to any "amendment" or "supplement" with respect to any of the Preliminary Prospectus and the Prospectus shall be deemed to refer to and include (i) the filing of any document with the Commission incorporated or deemed to be incorporated therein by reference after the date of filing of such Preliminary Prospectus or Prospectus and (ii) any such document so filed. Â All references in this Agreement to the Registration Statement, the Preliminary Prospectus, the General Disclosure Package, the Prospectus, or any Issuer Free Writing Prospectus, or any amendments or supplements to any of the foregoing, shall be deemed to include any copy thereof filed with the Commission on EDGAR. Â (iii) Securities Act Compliance. The Registration Statement complies, and the Preliminary Prospectus and the Prospectus and any further amendments or supplements to the Registration Statement or the Prospectus will comply, in all material respects, with the applicable provisions of the Securities Act. Each part of the Registration Statement, when such part became effective, did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as of its filing date, and any amendment thereof or supplement thereto, did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. Â (iv) No Stop Orders. No order preventing or suspending the use of the Registration Statement, the Preliminary Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission. Â 11 Â (g) Capitalization. The capitalization of the Company as of the date hereof is 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. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. Except as set forth in Schedule 3.1(g), no Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as set forth in Schedule 3.1(g) and as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. Except as set forth in Schedule 3.1(g), the issuance and sale of the Securities will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. Other than the Debentures, 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. Other than the Debentures, 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 share appreciation rights or "phantom share" plans or agreements or any similar plan or agreement. All of the outstanding shares of the Company are duly authorized, validly issued, fully paid and non-assessable, have been issued in compliance with all federal and state securities laws where applicable, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except for the Required Approvals, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's share capital to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders. Â (h) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such materials) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Preliminary Prospectus, the General Disclosure Package 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 (or waiver from the Commission). As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has never been an

issuer subject to Rule 144(i) under the Securities Act. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with 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. Â 12 Â (i) Material Changes; Undisclosed Events, Liabilities or Developments. Except as set forth on Schedule 3.1(i), since the date of the latest financial statements filed by the Company with the SEC, the General Disclosure Package and the Prospectus, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and strategic acquisitions 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 of its shares 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, or as set forth on Schedule 3.1(i), no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least one (1) Trading Day prior to the date that this representation is made. Â (j) Litigation. There is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action"). None of the Actions set forth on Schedule 3.1(j), (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents, the Shares or the Warrant Shares, or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty, which could reasonably be expected to result in a Material Adverse Effect. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act. Â (k) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all 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 could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Â 13 Â (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 of (i), (ii) and (iii) as could not have or reasonably be expected to result in a Material Adverse Effect. Â (m) Environmental Laws. The Company and its Subsidiaries (i) are in compliance with all federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("Environmental Laws"); (ii) have received all permits licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (iii) are in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect. Â (n) Regulatory Permits. (1) The Company possesses all certificates, licenses, authorizations, approvals, clearances, consents, registration and permits issued by the appropriate federal, state, local or foreign regulatory authorities including, without limitation, those administered by the U.S. Food and Drug Administration ("FDA") of the U.S. Department of Health and Human Services, the Federal Trade Commission (the "FTC"), or by any foreign, federal, state or local governmental or regulatory authority performing

functions similar to those performed by the FDA and the FTC, or reasonably necessary to conduct their respective businesses as described in the Registration Statement, the General Disclosure Package or the Prospectus, except where the failure to possess such permits would not reasonably be expected to result in a Material Adverse Effect (each, an "Authorization"), and the Company has not received any notice of proceedings relating to the revocation or modification of any Authorization or the noncompliance with any ordinance, law, rule or regulation applicable to the Company. The disclosures in the Registration Statement, if any concerning the effects of federal, state, local and all foreign regulation on the Company's business as currently contemplated are correct in all material respects. The Company is and has been in material compliance with any term of any such Authorizations, except for any violations which would not reasonably be expected to have a Material Adverse Effect. The Company has not failed to file with the applicable regulatory authorities (including the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) any filing, declaration, listing, registration, report or submission that is required to be so filed for the Company's business operation as currently conducted. All such filings were in material compliance with applicable laws when filed and no deficiencies have been asserted in writing by any applicable regulatory authority (including, without limitation, the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) with respect to any such filings, declarations, listings, registrations, reports or submissions. Â 14 Â (2) The Company: (i) are and at all times has been in substantial compliance with all statutes, rules, or regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, labeling, promotion, advertising, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, including but not limited to the U.S. Food, Drug and Cosmetic Act (the "FDCA") (21 U.S.C. Â§ 301 et seq.), the Federal Trade Commission Act (15 U.S.C. Â§ 41-58) and the rules and regulations of the Consumer Product Safety Commission ("Applicable Laws"), except as could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; (ii) has not received any warning letter, untitled letter or other correspondence or notice from any other governmental authority alleging or asserting noncompliance with any Applicable Laws or any Authorizations; (iii) possesses all material Authorizations and such Authorizations are valid and in full force and effect and are not in material violation of any term of any such Authorizations; (iv) has not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any governmental authority or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations and has no knowledge that any such governmental authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (v) has not received notice that any governmental authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations and has no knowledge that any such governmental authority is considering such action and the FDA has not sent any warning letters; imposed any fines, penalties or injunctions; or required or requested termination of any distribution of the Company's products; requested or required any recalls or seizures of products; or withdrawals or suspensions of clearances or approvals, resulting in prohibitions on sales of our products; (vi) has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct on the date filed (or were corrected or supplemented by a subsequent submission); and (vii) to the Company's knowledge, has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, post-sale warning, or other notice or action relating to the alleged lack of safety or efficacy of any product or any alleged product defect or violation and, to the Company's knowledge, no third party has initiated, conducted or intends to initiate any such notice or action. Â (3) The Company is not aware of any manufacturing site (whether Company-owned or that of a third-party manufacturer for the Company's products) that performs manufacturing activity for the Company subject to a governmental authority (including the FDA) shutdown or import or export prohibition. Â 15 Â (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 in all material respects. Â (p) Intellectual Property. To the knowledge of the Company, 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 Registration Statement, the General Disclosure Package and the Prospectus except as would not reasonably be expected to have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). None of, and neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement except as would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the Registration Statement, the General Disclosure Package or the Prospectus, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as could not have or reasonably be expected to not have a Material Adverse Effect. To the actual knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Â (q) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage in an amount deemed commercially reasonable. 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. Â (r) Transactions with Affiliates and Employees. 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, shareholder, member or partner, in each case in excess of \$120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company or a Subsidiary and (iii) other employee benefits, including share option agreements under any share option plan of the Company. Â 16 Â Â (s) Sarbanes-Oxley; Internal Accounting Controls. The Company and the Subsidiaries are in material compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date, and 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 Form 10-K under the Exchange Act (such date, the "Evaluation Date"). The Company presented in its most recently filed Form 10-K under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries. Â (t) Certain Fees. Except for fees payable to the Placement Agent, no brokerage or finder's fees or commissions are or will be payable by the Company or any Subsidiary to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents (for the avoidance of doubt, the foregoing shall not include any fees and/or commissions owed to the Depository). Other than for Persons engaged by any Purchaser, if any, 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. Â (u) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities, will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended. Â (v) Registration Rights. Except as set forth on Schedule 3.1(v), no Person has any right to cause the Company to effect the registration under the Securities Act of any securities of the Company or any Subsidiary. Â 17 Â Â (w) Listing and Maintenance Requirements. The shares of Common Stock are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock are or have been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The shares of Common Stock are currently eligible for electronic transfer through The Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to The Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer. Â (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 the laws of its state of incorporation that is or could become applicable to the Purchasers as a result of the Purchasers and the Company fulfilling their obligations or exercising their rights under the Transaction Documents, including without limitation as a result of the Company's issuance of the Securities and the Purchasers' ownership of the Securities. Â (y) Disclosure. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, the Company confirms that it has not 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 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 in all material respects and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made and when made, not misleading. The Company acknowledges and believes, to its best knowledge, 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. Â (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 stockholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated. Â 18 Â (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 \$50,000 (other than trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness. Â (bb) Tax Compliance. 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 federal, state and local income and all foreign tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges, fines or penalties that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its financial statements provision reasonably adequate for the payment of all material tax liability of which has not been finally determined and 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. Â (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. Â 19 Â (dd) Accountants. The Company's independent registered public accounting firm is as set forth in the Prospectus. To the knowledge and belief of the Company, such accounting firm (i) is a registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ending December 31, 2024. The Company changed its independent registered public accounting firm on July 11, 2024. The newly engaged independent registered public accounting firm qualifies as a registered public accounting firm as required by the Exchange Act. Â (ee) Acknowledgment Regarding Purchasers' Purchase of Securities. The Company acknowledges and agrees that each of the Purchasers is acting solely in the capacity of an arm's length purchaser with respect to the Transaction Documents and the transactions contemplated thereby. The Company further acknowledges that no Purchaser is acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated thereby and any advice given by any Purchaser or any of their respective representatives or agents in connection with the Transaction Documents and the transactions contemplated thereby is merely incidental to the Purchasers' purchase of the Securities. The Company further represents to each Purchaser that the Company's decision to enter into this Agreement and the other Transaction Documents has been based solely on the independent evaluation of the transactions contemplated hereby by the Company and its representatives. Â (ff) Acknowledgment Regarding Purchaser's Trading Activity. Anything in this Agreement or elsewhere herein to the contrary notwithstanding (except for Sections 3.2(i) 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 shares of 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, 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. Â (gg) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the

price of any security of the Company to facilitate the sale or resale of any of the shares of Common Stock, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the shares of Common Stock, 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 shares of Common Stock. Â (ii) Stock Option Plans. Each stock option granted by the Company under the Company's stock incentive plans was granted (i) in accordance with the terms of such plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No stock option granted under the Company's stock option plan has been backdated. Â 20 Â (jj) Cybersecurity. Except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, (i) 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 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 to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification; (ii) 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 (iii) the Company and the Subsidiaries have implemented backup and disaster recovery technology consistent with commercially reasonable industry standards and practices. Â (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"). Â (ll) 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, suit 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. Â (mm) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries 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 owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Subsidiaries 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. Â 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): Â (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. Â 21 Â (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). Â (c) 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. Â (d) 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 reports filed with the Commission, including the SEC Reports, the Registration Statement, the Preliminary Prospectus and the General Disclosure Package, and has been afforded: (i) the opportunity to ask such questions as it has deemed necessary of, and to receive answers from, representatives of the Company concerning the terms and conditions of the offering of the Securities and the merits and risks of investing in the Securities; (ii) access to information about the Company and its financial condition, results of operations, business, properties, management and prospects sufficient to enable it to evaluate its investment; and (iii) the opportunity to obtain such additional information that the Company possesses or can acquire without unreasonable effort or expense that is necessary to make an informed investment decision with respect to the investment. Such Purchaser acknowledges and agrees that neither the Placement Agent, nor any Affiliate of the Placement Agent, has provided such Purchaser with any information or advice with respect to the Securities nor is such information or advice necessary or desired. Neither the Placement Agent nor any Affiliate has made or makes any representation as to the Company or the quality of the Securities and the Placement Agent and any Affiliate may have acquired non-public information with respect to the Company which such Purchaser agrees need not be provided to it. In connection with the issuance of the Securities to such Purchaser, neither the Placement Agent, nor any of its Affiliates has acted as a financial advisor or fiduciary to such Purchaser. Â (e) 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, which terms include definitive pricing terms, of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, in the case of a Purchaser that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement or to such Purchaser's representatives, including, without limitation, its officers, directors, partners, legal and other advisors, employees, agents and Affiliates, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to locating or borrowing shares order to effect Short Sales or similar transactions in the future.

22 (f) No Voting Agreements. The Purchaser is not a party to any agreement or arrangement, whether written or oral, between the Purchaser and any other Purchaser and any of the Company's stockholders as of the date hereof, regulating the management of the Company, the stockholders' rights in the Company, the transfer of shares in the Company, including any voting agreements, stockholder agreements or any other similar agreement even if its title is different or has any other relations or agreements with any of the Company's stockholders, directors or officers.

(g) Brokers. Except as set forth on Schedule 3.2(h) or in the Preliminary Prospectus or Prospectus, no agent, broker, investment banker, person or firm acting in a similar capacity on behalf of or under the authority of the Purchaser is or will be entitled to any broker's or finder's fee or any other commission or similar fee, directly or indirectly, for which the Company or any of its Affiliates after the Closing could have any liabilities in connection with this Agreement, any of the transactions contemplated by this Agreement, or on account of any action taken by the Purchaser in connection with the transactions contemplated by this Agreement.

(h) Independent Advice. Each Purchaser understands that nothing in this Agreement or any other materials presented by or on behalf of the Company to the Purchaser in connection with the purchase of the Securities constitutes legal, tax or investment advice. 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, except as set forth in this Agreement, with respect to locating or borrowing shares in order to effect Short Sales or similar transactions in the future.

Section 4. OTHER AGREEMENTS OF THE PARTIES

4.1 Legends. The shares of Common Stock and, 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 Warrant Shares or if the Pre-Funded Warrant is exercised via cashless exercise, the Warrant Shares shall be issued free of legends. If at any time following the date hereof the Registration Statement is not effective or is not otherwise available for the sale of the shares of Common Stock, the Pre-Funded Warrants or the Warrant Shares, the Company shall immediately notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale of the Shares, the Pre-Funded Warrants or the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any Purchaser to sell, any of the Shares, the Pre-Funded Warrants or the Warrant Shares in compliance with applicable federal and state securities laws). The Company shall use commercially reasonable best efforts to keep a registration statement (including the Registration Statement) registering the issuance of the Warrant Shares effective during the term of the Pre-Funded Warrants.

23 4.2 Furnishing of Information; Public Information. Until no Purchaser owns Securities, the Company covenants to maintain the registration of the Common Stock under Section 12(b) or 12(g) of the Exchange Act and 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, except in the event that the Company consummates (in each case on or after the date as of which the Purchasers may sell all of their Securities without restriction or limitation pursuant to Rule 144): (a) any transaction or series of related transactions as a result of which any Person (together with its Affiliates) acquires then outstanding securities of the Company representing more than fifty percent (50%) of the voting control of the Company; (b) a merger or reorganization of the Company with one or more other entities in which the Company is not the surviving entity; or (c) a sale of all or substantially all of the assets of the Company, where the consummation of any such transaction referenced in clauses (a), (b) or (c) results in the Company no longer being 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 or agents 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 Securities-relevant 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, agents, employees or Affiliates on the one hand, and any of the Purchasers or any of their Affiliates on the other hand, shall terminate. The Company and each Purchaser shall consult with each other in issuing any other press releases with respect to the transactions contemplated hereby, and neither the Company nor any Purchaser shall issue any such press

release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of each Purchaser, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name of any Purchaser, or include the name of any Purchaser in any filing with the Commission or any regulatory agency or Trading Market, without the prior written consent of such Purchaser, except (a) as required by federal securities law in connection with the filing of final Transaction Documents (or forms thereof, as permissible) 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). Â 24 Â 4.5 Stockholder 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. Â 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 the Company reasonably believes constitutes material non-public information, unless prior thereto such Purchaser shall have entered into a written agreement with the Company regarding the confidentiality and use of such information. 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 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, agents, employees or Affiliates, or a duty to the Company, and of its Subsidiaries or any of their respective officers, directors, agents, employees or Affiliates 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 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. Â 4.7 Use of Proceeds. The Company shall use the net proceeds from the sale of the Securities hereunder for working capital purposes and general corporate procedures, including the purchase of any pending or future acquisitions or otherwise disclosed in the Prospectus, and shall not use such proceeds: (a) for the satisfaction of any portion of the Company's debt (other than payment of trade payables in the ordinary course of the Company's business or repayment of obligations outstanding as of the date of this Agreement, including the Debentures), (b) for the redemption of any shares of Common Stock or Common Stock Equivalents, (c) for the settlement of any litigation outstanding as of the date of this Agreement or (d) in violation of FCPA or OFAC regulations or similar applicable regulations. Â 25 Â 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 (including a Purchaser Party's status as an investor), or any of them or their respective Affiliates, any stockholder of the Company who is not an Affiliate of such Purchaser Party, arising out of or relating to any of the transactions contemplated by the Transaction Documents (unless such action is based upon a material breach of such Purchaser Party's representations, warranties, covenants or agreements made by such Purchaser Party in any Transaction Document or any conduct by a Purchaser Party which is finally judicially determined to constitute fraud, gross negligence or willful misconduct). If any action shall be brought against any Purchaser Party in respect of which indemnity may be sought pursuant to this Agreement, such Purchaser Party shall promptly notify the Company in writing, and the Company shall have the right to assume the defense thereof with counsel of its own choosing reasonably acceptable to the Purchaser Party. Any Purchaser Party shall have the right to employ separate counsel in any such action and participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Purchaser Party except to the extent that (i) the employment thereof has been specifically authorized by the Company in writing, (ii) the Company has failed after a reasonable period of time to assume such defense and to employ counsel or (iii) in such action there is, in the reasonable opinion of counsel to the applicable Purchaser Party, 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 for any settlement by a Purchaser Party effected without the Company's prior written consent, which shall not be unreasonably withheld or delayed, or 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 and other payment obligations required by this Section 4.8 shall be made by periodic payments of the amount thereof during the course of the investigation, defense, collection, enforcement or action, as and when bills are received or are incurred; provided, that if any Purchaser Party is finally judicially determined not to be entitled to indemnification or payment under this Section 4.8, such Purchaser Party shall promptly reimburse the Company for any payments that are advanced under this sentence. 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. Â 4.9 Listing of Shares. The Company hereby agrees

to use commercially reasonable best efforts to maintain the listing or quotation of the shares of Common Stock on each Trading Market on which each is currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the shares of Common Stock on such Trading Markets and promptly secure the listing of all of the shares of Common Stock on such Trading Markets. 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 of Common Stock and Warrant Shares, and will take such other action as is necessary to cause all of the shares of Common Stock and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of the Common Stock on a Trading Market and will comply in all material respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. The Company agrees to use commercially reasonable efforts 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.

26 4.10 Subsequent Equity Sales.

(a) From the date hereof until 90 days after the Closing Date, neither the Company nor any Subsidiary shall (i) issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents or (ii) file any registration statement or amendment or supplement thereto, other than (a) the Prospectus, (b) filing a registration statement on Form S-8 in connection with any employee benefit plan, or (c) a resale registration statement for shares issuable upon conversion or redemption of the Debentures and upon exercise of outstanding warrants.

(b) From the date hereof until 180 days after the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of shares of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the Common Stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for shares of Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at the market offering," whereby the Company may issue securities at a future determined price regardless of whether shares pursuant to such agreement have actually been issued and regardless of whether such agreement is subsequently canceled. Any Purchaser shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

(c) Notwithstanding the foregoing, this Section 4.10 shall not apply (1) in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance, and (2) to an "at the market offering" so long as Univest Securities, LLC is serving as sales agent for such "at the market offering".

4.11 Equal Treatment of Purchasers. No consideration (including any modification of the Transaction Documents) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of the Transaction Documents unless the same consideration is also offered to all of the parties to the Transaction Documents. For clarification purposes, this provision constitutes a separate right granted to each Purchaser by the Company and negotiated separately by each Purchaser, and is intended for the Company to treat the Purchasers as a class and shall not in any way be construed as the Purchasers acting in concert or as a group with respect to the purchase, disposition or voting of the shares of Common Stock 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. 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 or its Subsidiaries 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.

27 4.13 Exercise Procedures. The form of Notice of Exercise included in the Pre-Funded Warrants set 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 Warrant Shares in accordance with the terms, conditions and time periods set forth in the Transaction Documents.

4.14 Reservations of Shares. 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 of Common Stock pursuant to this Agreement and Warrant Shares pursuant to any exercise of the Pre-Funded Warrants.

4.15 Lock-Up Agreements. The Company shall not amend, modify, waive or terminate any provision of any of the Lock-Up Agreements without the prior written consent

of the Placement Agent, except to extend the term of the lock-up period, and shall enforce the provisions of each Lock-Up Agreement in accordance with its terms. If any party to a Lock-Up Agreement breaches any provision of a Lock-Up Agreement, the Company shall promptly use its best efforts to seek specific performance of the terms of such Lock-Up Agreement. Â Section 5. MISCELLANEOUS Â 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). Â 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). The Company shall pay any issuance, stamp or documentary taxes (other than transfer taxes) or charges imposed by any governmental body, agency or official (other than income taxes) by reason of the issuance of Shares to the Purchasers. Â 5.3 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, the Preliminary 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. Â 28 Â Â 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. Â 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 the Purchasers who purchased at least 50.1% in interest of the sum of (i) the Shares and (ii) the Pre-Funded Warrant Shares initially issuable upon exercise of the Pre-Funded Warrants based on the initial Subscription Amounts hereunder (unless any Purchaser has disposed of all their Securities, in which case that Purchaser's interest shall not count in such calculation), 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 the disproportionately impacted Purchaser (in the case of a single disproportionately impacted Purchaser) or at least 50.1% in interest of such disproportionately impacted Purchasers (in the case of a group of disproportionately impacted 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. Â 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. Â 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." Â 5.8 No Third-Party Beneficiaries. The Placement Agent shall be the third-party beneficiary of the representations and warranties of the Company in Section 3.1 and the representations and warranties of the Purchasers in Section 3.2. 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. Â 29 Â Â 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 suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any

provisions of the Transaction Documents, then, in addition to the obligations of the Company under Section 4.8, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. Â 5.10 Survival. The representations and warranties contained herein shall survive the Closing and the delivery of the Securities for the applicable statute of limitations. Â 5.11 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by e-mail delivery of a "pdf" format data file, by other electronic signing created on an electronic platform (such as DocuSign) or by digital signing (such as Adobe Sign), such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such "pdf" signature page were an original thereof. Â 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. Â 30 Â 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), provided that any such rescission of a Pre-Funded Warrant exercise, if made after receipt of shares of Common Stock issuable upon exercise, may not be made after the third Business Day following such receipt of shares. Â 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. Â 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. Â 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. Â 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 Placement Agent Counsel, the legal counsel of the Placement Agent. Placement Agent Counsel 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. Â 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. Â 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 relating to shares of 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] 31 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. QUALIGEN THERAPEUTICS, INC. Address for Notice: 5857 Owens Avenue, Suite 300 Carlsbad, California 92008 By: Name: Kevin A. Richardson II Email: Title: Interim Chief Executive Officer With a copy to (which shall not constitute notice): Sichenzia Ross Ference Carmel LLP 1185 Avenue of the Americas, 31st floor New York, NY 10036 Attn: Ross D. Carmel, Esq. Email: rcarmel@srfc.law [REMAINDER OF PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGES FOR PURCHASERS FOLLOW.] 32 [PURCHASER SIGNATURE PAGES TO QUALIGEN THERAPEUTICS, 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 Securities to Purchaser (if not same as address for notice): _____
DWAC for Common Stock: Subscription Amount: \$ _____ Shares of Common Stock: _____ Pre-Funded Warrant Shares: _____ Beneficial Ownership Blocker ~ 4.99% or ~ 9.99% Beneficial Ownership Blocker ~ 4.99% or ~ 9.99% EIN Number: _____
Notwithstanding anything contained in this Agreement to the contrary, by checking this box (i) the obligations of the above-signed to purchase the securities set forth in this Agreement to be purchased from the Company by the above-signed, and the obligations of the Company to sell such securities to the above-signed, shall be unconditional and all conditions to Closing shall be disregarded, (ii) the Closing shall occur on the second (2nd) Trading Day following the date of this Agreement and (iii) any condition to Closing contemplated by this Agreement (but prior to being disregarded by clause (i) above) that required delivery by the Company or the above-signed of any agreement, instrument, certificate or the like or purchase price (as applicable) shall no longer be a condition and shall instead be an unconditional obligation of the Company or the above-signed (as applicable) to deliver such agreement, instrument, certificate or the like or purchase price (as applicable) to such other party on the Closing Date. [SIGNATURE PAGES CONTINUE] 33 Exhibit A Form of Pre-Funded Warrant (See Attached) 34 Exhibit B Form of Lock-Up Agreement (See Attached) 35 Exhibit C Placement Agency Agreement (See Attached) 36 EX-5.1 5 ex5-1.htm Exhibit 5.1 October 24, 2024 Qualigen Therapeutics, Inc. 5857 Owens Avenue, Suite 300 Carlsbad, California 92008 Ladies and Gentlemen: We have acted as counsel for Qualigen Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing of a Registration Statement on Form S-1 (the "Registration Statement"), including a related prospectus filed with the Registration Statement (the "Prospectus"), with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), covering the offer and sale of up to 14,000,000 shares of common stock of the Company, par value \$0.001 per share (each a "Share" and collectively the "Shares"), or up to 14,000,000 shares of pre-funded warrants, each pre-funded to purchase one Share (each a "Pre-Funded Warrant" and collectively the "Pre-Funded Warrants"). This opinion is being rendered in connection with the filing of the Registration Statement with the Commission. In connection with this opinion, we have examined originals or copies (certified or otherwise identified to our satisfaction) of (i) the Company's Certificate of Incorporation, as currently in effect, (ii) the Company's Bylaws as currently in effect, (iii) the Registration Statement and related Prospectus and (vi) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials or of officers and representatives of the Company, as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth. In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, conformed or photostatic copies, and the authenticity of the originals of such latter documents. As to certain questions of fact material to this opinion, we have relied upon certificates or comparable documents of officers and representatives of the Company and have not sought to independently verify such facts. Based on the foregoing, and in reliance thereon, and subject to the qualifications, limitations, exceptions and assumptions set forth herein, we are of the opinion that, (i) the Shares and the Pre-Funded Warrants have been duly authorized and when issued as described in the Registration Statement will be duly and validly issued, fully paid and non-assessable and (ii) the shares of common stock issuable upon the exercise of the Pre-Funded Warrants have been duly authorized and, upon the exercise of the Pre-Funded Warrants in accordance with the terms thereof, such shares will be duly and validly issued, fully paid and non-assessable shares of common stock of the Company. 1185 AVENUE OF THE AMERICAS | 31ST FLOOR | NEW YORK, NY | 10036 T (212) 930-9700 | F (212) 930-9725 | WWW.SRFC.LAW We express no opinion herein as to the laws of any state or jurisdiction other than the federal laws of the United States of America, and, with respect to our opinion relating to the enforceability of the Pre-Funded Warrants, the laws of the State of New York. This opinion speaks only as of the date hereof and we assume no obligation to update or supplement this opinion if any applicable laws change after the date of this opinion or if we become aware after the date of this opinion of any facts, whether existing before or arising after the date hereof, that might change the opinions expressed above. This opinion is furnished in connection with the filing of the Registration Statement and may not be relied upon for any other purpose without our prior written consent in each instance. We assume no obligation to update or supplement any of our opinions to reflect any changes of law or fact that may occur. We hereby consent to the filing of this letter as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus which is a part of the Registration Statement. In giving such consents, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission promulgated thereunder. Very truly yours, Very truly yours, /s/ Sichenzia Ross Ference Carmel LLP Sichenzia Ross Ference Carmel LLP 1185 AVENUE OF THE AMERICAS | 31ST FLOOR | NEW YORK, NY | 10036 T (212) 930-9700 | F (212) 930-9725 | WWW.SRFC.LAW EX-10.31 6 ex10-31.htm Exhibit 10.31 Form of Lock-Up Agreement October [], 2024 Univest Securities, LLC 75 Rockefeller Plaza, Suite 1838 New York, New York 10019 Re: Qualigen Therapeutics, Inc."Public Offering Ladies and Gentlemen: The undersigned, an officer, director and/or a

holder of shares of common stock, \$0.001 par value per share (the "Common Stock"), or rights to acquire Common Stock, of Qualigen Therapeutics, Inc. (the "Company"), understands that you are the placement agent (the "Placement Agent") named in the final form of the placement agency agreement (the "Placement Agency Agreement") to be entered into among the Placement Agent and the Company, providing for the public offering (the "Public Offering") of shares of Common Stock and if applicable, other securities (collectively, the "Securities") pursuant to a registration statement filed or to be filed with the U.S. Securities and Exchange Commission (the "SEC"). Capitalized terms used herein and not otherwise defined shall have the meanings set forth for them in the Placement Agency Agreement. In consideration of the Placement Agent's agreement to enter into the Placement Agency Agreement and to proceed with the Public Offering, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Undersigned hereby agrees, for the benefit of the Company and the Placement Agent that, without the prior written consent of the Placement Agent, the Undersigned will not, during the period commencing on the date of this Lock-up Agreement and continuing and including the date that is six (6) months after the date of the Placement Agency Agreement (the "Lock-Up Period"), unless otherwise provided herein, directly or indirectly (a) offer, sell, agree to offer or sell, solicit offers to purchase, grant any call option or purchase any put option with respect to, pledge, encumber, assign, borrow or otherwise dispose of (each a "Transfer") any Relevant Security (as defined below) or otherwise publicly disclose the intention to do so, or (b) establish or increase any "put equivalent position" or liquidate or decrease any "call equivalent position" with respect to any Relevant Security (in each case within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder) with respect to any Relevant Security or otherwise enter into any swap, derivative or other transaction or arrangement that Transfers to another, in whole or in part, any economic consequence of ownership of a Relevant Security, whether or not such transaction is to be settled by the delivery of Relevant Securities, other securities, cash or other consideration, or otherwise publicly disclose the intention to do so. As used herein, the term "Relevant Security" means any Share, any warrant to purchase Shares or any other security of the Company or any other entity that is convertible into, or exercisable or exchangeable for, Shares or any other equity security of the Company, in each case owned beneficially or otherwise by the Undersigned on the date of closing of the Public Offering or acquired by the Undersigned during the Lock-Up Period. [Signature page to Lock-Up Agreement] The restrictions in the foregoing paragraph shall not apply to (a) any exercise (including a cashless exercise or broker-assisted exercise and payment of tax obligations), vesting or settlement, as applicable, by the Undersigned of options or warrants to purchase Shares or other equity awards pursuant to any share incentive or award plan or share purchase plan of the Company; provided that any Shares received by the Undersigned upon such exercise, conversion or exchange will be subject to the Lock-Up Period, (b) any establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the Transfer of Shares (a "Trading Plan"); provided that (i) the Trading Plan shall not provide for or permit any Transfers, sales or other dispositions of Shares during the Lock-Up Period and (ii) the Trading Plan would not require any filing under Section 16(a) of the Exchange Act and no such filing is voluntarily made, (c) any Transfer of Shares acquired in open market transactions following the closing of the Public Offering, provided the Transfer would not require any filing under Section 16(a) of the Exchange Act and no such filing is voluntarily made, (d) the Transfer of the Undersigned's Shares or any security convertible into or exercisable or exchangeable for shares of Common Stock to the Company in connection with the termination of the Undersigned's employment with the Company or pursuant to contractual arrangements under which the Company has the option to repurchase such shares, provided that no filing by any party under the Exchange Act shall be required or shall be made voluntarily within 45 days after the date the Undersigned ceases to provide services to the Company, and after such 45th day, if the Undersigned is required to file a report under the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock during the Lock-Up Period, the Undersigned shall clearly indicate in the footnotes thereto that the filing relates to the termination of the Undersigned's employment, and no other public announcement shall be made voluntarily in connection with such transfer (other than the filing on a Form 5 made after the expiration of the Lock-Up Period), (e) the conversion of the outstanding securities into Shares, provided that any such Shares received upon such conversion shall be subject to the restrictions on Transfer set forth in this Lock-Up Agreement, or (f) the Transfer of Shares or any security convertible into or exercisable or exchangeable for Shares pursuant to a bona fide third-party tender offer for securities of the Company, merger, consolidation or other similar transaction that is approved by the board of directors of the Company, made to all holders of shares of Common Stock involving a change of control (as defined below), provided that all of the Undersigned's Relevant Securities subject to this Lock-Up Agreement shall remain subject to the restrictions herein. For purposes of this Lock-Up Agreement, "change of control" means any bona fide third-party tender offer, merger, consolidation, or other similar transaction, in one transaction or a series of related transactions, the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of affiliated persons, other than the Company, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of 50% or more of the total voting power of the voting shares of the Company (or the surviving entity). In addition, the Undersigned further agrees that, except for the Registration Statement or any registration statement on Form S-8, during the Lock-Up Period, the Undersigned will not, without the prior written consent of the Placement Agent: (a) file or participate in the filing with the SEC any registration statement or circulate or participate in the circulation of any preliminary or final prospectus or other disclosure documents, in each case with respect to any proposed offering or sale of a Relevant Security beneficially owned by the Undersigned, or (b) exercise any rights the Undersigned may have to require registration with the SEC of any proposed offering or sale of a Relevant Security beneficially owned by the Undersigned. In furtherance of the Undersigned's obligations hereunder, the Undersigned hereby authorizes the Company during the Lock-Up Period to cause the transfer agent for the Relevant Securities to decline to Transfer, and to note stop transfer restrictions on the register of members and other records relating to, Relevant Securities for which the Undersigned is the record owner and the Transfer of which would be a violation of this Lock-Up Agreement and, in the case of the Relevant Securities for which the Undersigned is the beneficial owner but not the record owner, the Undersigned agrees that, during the Lock-Up Period, it will use its reasonable best efforts to cause the record owner to authorize the Company to cause the relevant transfer agent to decline to transfer and to note stop transfer restrictions on the register of members and other records relating to such Relevant Securities to the extent such transfer would be a violation of this Lock-Up Agreement. Notwithstanding the foregoing or anything contained herein to the contrary, the Undersigned may Transfer the Undersigned's Relevant Securities: (i) as a bona fide gift or gifts; (ii) to any immediate family member of the Undersigned, or to any trust, partnership, limited liability company, or other legal entity commonly used for estate planning purposes which are established for the direct or indirect benefit of the Undersigned or a member or members of the immediate family of the Undersigned; (iii) if the

Undersigned is a corporation, partnership, limited liability company, trust or other business entity, (1) to another corporation, partnership, limited liability company, trust, or other business entity that is a direct or indirect Affiliate (as defined in Rule 405 under the Securities Act of 1933, as amended) of the Undersigned, (2) to partners, limited liability company members, shareholders or stockholders of the Undersigned or holders of similar equity interests in the Undersigned, or (3) in connection with a sale, merger or transfer of all or substantially all of the assets of the Undersigned or any other change of control of the Undersigned, not undertaken for the purpose of avoiding the restrictions imposed by this Lock-Up Agreement; (iv) if the Undersigned is a trust, to the trustee or beneficiary of such trust or to the estate of a beneficiary of such trust; (v) by testate or intestate succession; (vi) by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement; (vii) pursuant to the Placement Agency Agreement; or (viii) to the withholder of Shares by, or surrender of Shares to, the Company pursuant to a "net" or "cashless" exercise or settlement feature to cover taxes due upon or the consideration required in connection with the exercise of securities issued under an equity incentive plan or share purchase plan of the Company; provided, in the case of clauses (i)-(vi), that (A) such transfer shall not involve a disposition for value, (B) the transferee agrees in writing with the Placement Agent and the Company to be bound by the terms of this Lock-Up Agreement and (C) such transfer would not require any filing under Section 16(a) of the Exchange Act and no such filing is voluntarily made. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage, or adoption, not more remote than the first cousin. If the Undersigned is an officer or director of the Company, (i) the Placement Agent agrees that at least three business days before the effective date of any release or waiver of the foregoing restrictions in connection with a Transfer of Shares, the Placement Agent will notify the Company of the impending release or waiver substantially in the form of Exhibit A hereto and (ii) the Company has agreed in the Placement Agency Agreement to announce the impending release or waiver by press release substantially in the form of Exhibit B hereto through a major news service at least two (2) business days before the effective date of the release or waiver. Any release or waiver granted by the Placement Agent hereunder to any such officer or director shall only be effective two (2) business days after the publication date of such press release. The provisions of this paragraph will not apply if (a) the release or waiver is effected solely to permit a transfer not for consideration and (b) the transferee has agreed in writing to be bound by the same terms described in this Lock-Up Agreement to the extent and for the duration that such terms remain in effect at the time of the transfer. The Undersigned, whether or not participating in the Public Offering, understands that the Placement Agent is entering into the Placement Agency Agreement and proceeding with the Public Offering in reliance upon this Lock-Up Agreement. The Undersigned hereby represents and warrants that the Undersigned has full power and authority to enter into this Lock-Up Agreement and that this Lock-Up Agreement has been duly authorized (if the Undersigned is not a natural person) and constitutes the legal, valid, and binding obligation of the Undersigned, enforceable in accordance with its terms. Upon request, the Undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the Undersigned shall be binding upon the successors and assigns of the Undersigned from the date of this Lock-Up Agreement. This Agreement shall be delivered to the Placement Agents prior to the execution of the Placement Agency Agreement and shall automatically terminate upon the earliest to occur, if any, of (1) either the Placement Agent, on the one hand, or the Company, on the other hand, advising the other in writing, they have determined not to proceed with the Offering, (2) termination of the Placement Agency Agreement before the sale of the Securities, (3) the withdrawal of the Registration Statement or (4) the termination of the Offering prior to the sale of the Securities. This Lock-Up Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof. Delivery of a signed copy of this Lock-Up Agreement by facsimile or e-mail/pdf transmission shall be effective as the delivery of the original hereof. [Signature page follows] Very truly yours, Signature: Name (printed): Title (if applicable): Entity (if applicable): [Signature page to Lock-Up Agreement] EXHIBIT A FORM OF WAIVER OF LOCK-UP , 2024 [Name and Address of Officer or Director Requesting Waiver] Dear Mr./Ms. [Name]: This letter is being delivered to you in connection with the offering by QUALIGEN THERAPEUTICS, INC. (the "Company") of shares of its common stock, par value \$0.001 (the "Common Stock"), and the lock-up agreement dated , 2024 (the "Lock-up Agreement"), executed by you in connection with such offering, and your request for a [waiver] [release] dated , 2024, with respect to [—] shares of Common Stock (the "Shares"). The undersigned hereby agree to [waive] [release] the transfer restrictions set forth in the Lock-up Agreement, but only with respect to the Shares, effective , 2024; provided, however, that such [waiver] [release] is conditioned on the Company announcing the impending [waiver] [release] by press release through a major news service at least two (2) business days before effectiveness of such [waiver] [release]. This letter will serve as notice to the Company of the impending [waiver] [release]. Except as expressly [waived] [released] hereby, the Lock-up Agreement shall remain in full force and effect. Very truly yours, [—] By: Name: Title: cc: QUALIGEN THERAPEUTICS, INC. Exhibit A EXHIBIT B FORM OF PRESS RELEASE QUALIGEN THERAPEUTICS, INC. [Date] Qualigen Therapeutics, Inc. (the "Company") today announced that Univest Securities, LLC, the placement agent in the Company's public offering of [—] shares of common stock is [waiving][releasing] a lock-up restriction with respect to [—] shares (the "Shares") of the Company held by [certain officers or directors] [an officer or director] of the Company. The [waiver][release] will take effect on , 2024, and the Shares may be sold on or after such date. This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended. Exhibit B EX-10.32 7 ex10-32.htm Exhibit 10.32 CONSULTING AGREEMENT IR Agency LLC (the "Consultant" or "IR Agency") is pleased to provide certain consulting services to Qualigen Therapeutics Inc ("you," the "Client" or the "Company") as more fully described in this agreement (the "Agreement"). This Agreement sets forth the terms and conditions pursuant to which the Company engages the Consultant to provide such services. 1. Consulting Services. (a) Commencing on October 15th, 2024 (the "Start Date"), Consultant will provide marketing and advertising services ("Advertising" or "Services") to communicate information about the Company (trading symbol: "QLGN") to the financial community. (b) Consultant does not make any representation about the response, if any, to the public release of Advertising for the Company. (c) Client acknowledges that the Consultant carries no professional licenses. Consultant will not participate in discussions or negotiations with potential investors. Consultant will not solicit orders, make recommendations or give investment advice. Consultant will not affect transactions of Company securities for potential investors or anyone else. Consultant and Client agree that Consultant is not being engaged for, and is not

permitted to engage in, activities that would give rise to Consultant being required to register federally or in any state or other jurisdiction as a broker or an investment advisor. If a financial intermediary expresses interest in the Company to Consultant, Consultant will refer the intermediary to the Company. In providing the Services under the Agreement, Consultant agrees to comply in all materials respects with all applicable U.S. securities laws. The Client acknowledges and agrees that (a) it and its affiliates each have relied and will continue to rely on the advice of its own legal, regulatory, and securities law advisors for all matters and (b) neither the Client nor any of its affiliates has received, or has relied upon, the advice of Consultant or any of its affiliates regarding legal, regulatory, or securities law matters. Â Â Â (d) The Services of the Consultant shall not be exclusive to the Client, and the Client acknowledges that Consultant will be performing similar Services for other clients and Consultant shall be free to perform Services for such other persons. Â 2. Independent Contractor. Client and Consultant agree that Consultant shall perform its duties under this Agreement as an independent contractor. Nothing contained herein shall be considered as creating a relationship of agent-principal, employer-employee or joint venturers between the Consultant and the Client. Â Â Â Â 3. Compensation. Â Â (a) As consideration for the performance of the Services hereunder during the Term (defined below), the Client shall pay to the Consultant the sum of Eight-Hundred Thousand US Dollars \$800,000 (the "Fee") upon the Company raising \$1.8 million or more in an equity financing over the next thirty (30) days (the "Financing") in cash via Bank Wire Transfer. Such consideration shall be deemed earned in full upon receipt. In the event the Financing does not occur, the fee set forth above shall not be due. Â Â Â Â (b) Unless otherwise provides in this Agreement, all other services, including out-of-scope assignments, rendered by Consultant shall be subject to additional compensation under a separate agreement between Consultant and Company. Consultant shall be responsible for all out-of-pocket expenses incurred or paid in connection with its performance of the Services hereunder. Â 4. Term and Termination. Â Â (a) The term of this Agreement shall commence on the Start Date and continue for a period of One Month(s) (the "Term") unless otherwise extended by mutual agreement of the parties (the "Extended Term"). This Agreement may be terminated, with or without cause, by either Client or Consultant at any time by written notice to the other Party. If the Agreement is terminated by Client during the Term for any reason, Client will not be entitled to return of any of the Fee. If the Client files for bankruptcy, becomes insolvent or is in material breach of this Agreement ("Cause"), Consultant may terminate the Agreement and Client will not be entitled to the return of any of the Fee. If the Consultant terminates the Agreement without Cause, then Consultant must return the unused portion (if any) of the Fee. Within ten days after the termination or expiration of this Agreement, each party shall return to the other all Proprietary or Confidential Information (defined below) of the other party (and any copies thereof) in the party's possession or, with the approval of the party, destroy all such Proprietary or Confidential Information. Â Â Â (b) In the event the Client elects to purchase and the Consultant agrees to supply additional Services during the Term or the Extended Term of this Agreement, the terms and condition of this Agreement will apply to such additional Services. Â 5. Information. Â Â (a) In connection with Consultant's performance of its Services, Consultant will rely on the Company's press releases and the Company's most recent reports, if any, filed with the Securities and Exchange Commission (collectively, the "Company Information"). In this regard, Company agrees to use its best efforts to make all filings required by the exchange act and all other applicable laws, in each case on a timely basis in accordance with such laws. Client hereby grants to Consultant the right to use the name and service marks of Company in its Services. Company will be entitled to require that certain or all materials created by Consultant in performing its Services be submitted to Company for its review and approval, such approval not to be unreasonably withheld, conditioned or delayed. Â Â Â Â (b) The Client hereby acknowledges and agrees that, in performing its Services hereunder, Consultant will be using and relying on the Company Information without independent verification thereof. Consultant will also be under no obligation to determine whether there have been, or to investigate any changes in, such information. Consultant will be entitled to submit any materials created by Consultant to Company for its review and approval. Client represents and warrants that that the Company Information and all information provided by Company or its affiliate or representatives to Consultant shall, at the time provided, not contain any untrue statement or material fact or omit to state a material fact necessary in order to make the statement made, in light of the circumstances under which they were made, not misleading. Â Â Â Â (c) The Client, by its authorization or approval of the Advertising, represents and warrants to Consultant that, to its knowledge, the Advertising is complete and correct in all material respects and does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading. The Client agrees to promptly notify Consultant upon the occurrence of any material adverse change in the business or affairs of the Company or upon the occurrence of any event which causes Client to believe that the Advertising contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. Â 6. Securities Laws. The Client represents and warrants that the Company Information and all information provided by the Company or its affiliate or representatives complies in all material respects with the U.S. federal and applicable state securities laws, and are not and will not be or constitute a part of any activity that is or may be deemed to be illegal under the U.S. federal or applicable state securities laws, including, without limitation, being a part of any illegal offering, illegal pump-and-dump, illegal scalping, illegal touting schemes, or an effort to assist with a violation of any court order including, but not limited to, any order banning or limiting a person's involvement in the securities markets. Â Â 7. Work Product. All information and materials produced for the Client shall be the property of the Consultant, free and clear of all claims thereto by the Client, and the Client shall have no claim of authorship therein. Consultant shall retain all right, title, and interest in and to, including any intellectual property rights with respect to, any data, designs, processes, specifications, software, applications, course, code, object code, utilities, methodologies, know-how, materials, information and skills (and any derivative works, modifications and enhancements thereto) owned, acquired or developed by or for Consultant's databases. Â Â Â 8. Confidentiality. The parties agree to hold each other's Proprietary or Confidential Information in strict confidence. "Proprietary or Confidential Information" shall include, but is not limited to, written or oral contracts, trade secrets, know-how, business methods, business policies, memoranda, reports, records, computer retained information, notes, or financial information. Proprietary or Confidential Information shall not include any information which: (i) is or becomes generally known to the public by any means other than a breach of the obligations of the receiving party; (ii) was previously known to the receiving party or rightly received by the receiving party from a third party not under a duty of confidentiality to the disclosing party; (iii) is independently developed by the receiving party without use of, or reference to, any Proprietary or Confidential Information; or (iv) is subject to disclosure under applicable law, regulation, stock exchange rule, court order or other lawful process. The parties agree not to make each other's Proprietary or Confidential Information available in any form to any third party or to use each other's Proprietary or Confidential Information for any purpose other than as specified in this Agreement. Each party's

Proprietary or Confidential Information shall remain the sole and exclusive property of that party. The parties agree that in the event of use or disclosure by the other party other than as specifically provided for in this Agreement, the non-disclosing party may be entitled to equitable relief. Notwithstanding termination or expiration of this Agreement, the parties acknowledge and agree that their obligations of confidentiality with respect to Proprietary or Confidential Information shall continue in effect for a total period of three (3) years from the termination date.

9. Non-Public Material Information. Consultant acknowledges that in order to prepare appropriate Advertising in a timely manner it may be made aware of price sensitive or confidential information that has not been publicly disclosed yet. Consultant confirms that it is fully aware of its obligations in relation to such information and will ensure that the confidentiality of such information is maintained at all times and that it, and its employees and contractors, are all fully aware of and comply with, all appropriate securities laws and regulations in relation to insider trading and related matters.

10. Limitation of Liability. Consultant shall not be liable to Client or any other person for any damages in connection with the provision of Services under the Agreement, whether because of Consultant's negligence or otherwise, and regardless of the form of action, except in the event of Consultant's deliberate fault, will full misconduct or gross negligence. Nevertheless, regardless of the form of action, whether in contract, tort or otherwise, Consultant shall not be liable to Client for any lost profits, business interruption, or for any indirect, incidental, special, consequential, exemplary or punitive damages arising out of or relating to this Agreement, nor shall Consultant's aggregate liability for any other damages arising out of this Agreement exceed the Fee paid by Company to Consultant.

11. Indemnification. Client shall indemnify and hold Consultant harmless from and against any and all actions, claims, investigations (including but not limited to any formal or informal investigations brought by any state or federal regulator and any subpoenas or requests for documents issued in connection therewith), liabilities, losses, or damages arising from the preparation, presentation or dissemination of any Advertising covered by this Agreement including, but limited to, the costs of defense and attorneys' fees except for any claims as a result of Consultant's deliberate fault, willful misconduct or gross negligence.

12. Notices. Any notice or other communication required or permitted to be given to either party hereunder shall be in writing and shall be given to such party at such party's address set forth below or such other address as such party may hereafter specify by notice in writing to the other party. Any such notice or other communication shall be addressed as aforesaid and given by (a) certified mail, return receipt requested, with first class postage prepaid, (b) hand delivery, or (c) via electronic communication (i.e., e-mail) or reputable overnight courier. Any notice or other communication will be deemed to have been duly given (i) on the fifth (5) day after mailing, provided receipt of delivery is confirmed, if mailed by certified mail, return receipt requested, with first class postage prepaid, (ii) on the date of Service if served personally or (iii) on the business day after delivery to an overnight courier service or by sending of an electronic communication, provided the notifying party specifies next day delivery and receipt of delivery has been confirmed:

If to the Client: Email: If to Consultant: IR Agency LLC 23 Downing Street, Newark NJ 07105 E-mail: [Raf@ir.agency]

13. Waiver of Breach. Any waiver by either party of a breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent breach by any party.

14. Assignment. Neither this Agreement nor any of the rights, interests or obligations hereunder may be assigned by either party hereto without the prior written consent of the other party, which will not be delayed or withheld unreasonably; provided that the Client shall not be required to consent to any assignment by Consultant of its cash and compensation payable pursuant to this Agreement. Any assignment without such consent, when required, shall have no legal validity; subject to the foregoing, this Agreement and all of the provisions hereof will be binding upon and inure to the benefit of the parties to this Agreement and their respective successors and permitted assigns.

15. Governing Law and Jurisdiction. This Agreement shall be governed and construed under State of New Jersey. The parties consent to the exclusive jurisdiction of the federal and state courts located in New Jersey, to hear and determine any dispute that may arise under this Agreement.

16. Entire Agreement. This Agreement contains the complete agreement between the parties with respect to the subject matter hereof and supersedes any prior proposals, understandings, agreements or representations by or between the parties, written or oral.

17. Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held by any court of competent jurisdiction to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

18. Waiver and Modification. Any waiver, alteration, or modification of any of the provisions of this Agreement shall be valid only if made in writing through an amendment of this Agreement and signed by the parties hereto.

19. Acceptance. Please confirm that the foregoing is in accordance with the Company's understanding by signing and returning this Agreement, which will thereupon constitute a binding Agreement between the Company and IR Agency, LLC as of October 09, 2024. The undersigned officers of IR Agency, LLC and the Company represent that they have the authority to bind IR Agency and the Company, respectively. This Agreement may be executed in counterparts and with electronic or facsimile signatures.

IR Agency LLC By: /s/ Rafael Pereira Print Name: Rafael Pereira Qualigen Therapeutics Inc. By: Kevin Richardson II Print Name: Kevin Richardson II Position: Interim CEO /s/ Kevin Richardson II

IR Agency wire Instructions Capital One Bank Account Beneficiary- IR Agency LLC Address:

EX-23.1 8 ex23-1.htm Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement and Prospectus on Form S-1 of Qualigen Therapeutics, Inc. of our report dated April 5, 2024 (which report includes an explanatory paragraph regarding the existence of substantial doubt about the Company's ability to continue as a going concern), relating to the consolidated financial statements of Qualigen Therapeutics, Inc. as of and for the year ended December 31, 2023, appearing in the Annual Report on Form 10-K of Qualigen Therapeutics, Inc.

We also consent to the reference to our firm under the heading "Experts" in such Registration Statement and Prospectus.

/s/ Baker Tilly US, LLP San Diego, California October 24, 2024 EX-FILING FEES 9 ex107.htm Exhibit 107 Calculation of Filing Fee Table FORM S-1 (Form Type) Qualigen Therapeutics, Inc. (Exact Name of Registrant as Specified in its Charter) Table 1: Newly Registered Securities Security TypeA Security Class TitleA Fee Calculation RateA Amount RegisteredA Proposed Maximum Offering Price Per UnitA Maximum Aggregate Offering Price (1) A Fee RateA Amount of Registration Fee A Fees to be paidA EquityA Common Stock (2) A 457(o)A -A \$ 1,800,000.00 A 0.00015310 A \$ 275.58 A Fees to be PaidA EquityA Pre-Funded WarrantsA 457(q)A -A (3)A -

Â Â Â - Â Fees to be PaidÂ EquityÂ Common Stock issuable upon exercise of Pre-Funded Warrants (2)Â Â 457(o)Â Â -
 Â Â Â -Â Â Â Â (4)Â Â -Â Â Â - Â Â Â Â Â Total Offering AmountÂ \$ 1,800,000.00 Â Â Â Â Â \$ 275.58 Â Â Â Â Â
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 Â Â Net Fee DueÂ Â Â Â Â Â Â Â \$ 275.58 Â Â (1) Estimated solely for the purpose of calculating the amount of the
 registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act"). Â Â
 (2) Pursuant to Rule 416 under the Securities Act, this registration statement shall also cover an indeterminate number
 of shares of common stock that may be issued and resold resulting from stock splits, stock dividends or similar
 transactions. Â Â (3) Pursuant to Rule 457(g) under the Securities Act, no separate registration fee is required for the
 warrants. Â Â (4) The proposed maximum aggregate offering price of the common stock will be reduced on a dollar-for-
 dollar basis based on the offering price of any pre-funded warrants sold in the offering, and the proposed maximum
 aggregate offering price of the pre-funded warrants to be issued in the offering will be reduced on a dollar-for-dollar
 basis based on the offering price of any common stock issued in the offering. Accordingly, the proposed maximum
 aggregate offering price of the common stock and pre-funded warrants (including the common stock issuable upon
 exercise of the pre-funded warrants), if any, is \$1,800,000. Â Â GRAPHIC 10 image_002.jpg begin 644 image_002.jpg
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 X^\\2; M,Z9;O@XS.P]/[O\ C43DH*].FC2=27*CTWX&_#N?JHCXH0Z!\$9(O"M@!:=M= M1\&2,' C!];SQ]-
 Q[5^H&EZ7::+IUM86%O':65M&L4,\$*[4C11@*!Z 5]?L M' _#6/P-#/[59H=FI^(I#?S,1AA'JV)?H%&?^!&I_O[1WB?
 Q1^T5K/@*[\\+ MK:::/-B7 5 _C\$?W9')^4J _:]J.37QV-Q:]JE-[NR/U#*,HJ5(M<>1;*!E0)"FZ21V.%51ZFIE)0 M3E)V2-
 :5*=>I&E25Y2=DEU9U=%<7\ BQHGGC\K)KVA-,+?S6@EAN\$VR12+@
 ME2/H0' _\$G>*M'M=6TF\BU#3KI/,@N83E77U M%:-)IJZ.2490;C)6:"BBBF28'CCP/HOQ\$-W>A: 8QW^G7*X:-QRI[.I_A8
 M=B*_ _]H?X ZM!%(MIO,O= O&9M.U+;PX' _+ _20=QWZBOU'0?>D0]F!_J.]=-&LZ3\CCQ.'5>/F?CDS5!(U=/ M\2O
 6J?" P _:KX9U=-MY8R1!(A9HSRDB+S+@URC-7LWYE="SCBXNS&N>#7 MJ6DL9-.M/5HE_E7E,C?*.J:TV/R]/M5'
 \$2\Z"NBCNSAQ?PHN6\TEI-%/" MVV:)Q(C>C Y'ZBOU\$!>)\$8>]"\$UI#D7UI',\>*C=^N: _+M5K[R_8]UTZ
 MM\';>U=MSZ==S6W _\$D.OZ/C*YFI=CMR:IRUI4^Z (JQH H H K Y^P"B MBB@ H H H H **** "BBB@ H H H H **** "BBB@
 H H H H **** "BBB@ H H H H **** M* "BBB@ H H H H **** "BBB@ H H H H **** "BBB@ H H H H **** "BBB@ H H H H M ^*1?
 VX]0+ZQX4L-WRQP33X_WF _^RU]=5\8 MO,?^%@>'QV&EM_Z:O0P*O M77S/&S=VPDOE^9\Z-
 3&IY)/ _UZZOXB:D9KV"R4 _+\$-[C _:/3]/YU5\$G(G;JWD(R\$D5OR85 MYU:7-*W8] _"T^2',JV?
 MCX1T:P[X4T;2H@%CL;*&V4#IA\$" P!U/+56+A0 M'/!;)]J+3[A+JQMIHVW1R1JZMZ@@\$&IS7S!JNMC\ ?VH?
 CQ\1O#7QLU33+'6 MKS0+#3FC%C:V^%29"H/F\$\$/N.1Z<8K[<!:]J&K_#W0]7UN#)]J5QI\5S=P MXV['!FX[?3M6EJ?
 A;1]:O+:[U#2K^N;8YAFN(%=X_JTD<5^ _MF_ '+6_A7 MI&E:-H,<<5SK22^=>S)N\N-0 50=-

QW=3T%>2HO!..I7JS;B^A)O*M'B&&%&RO M 8;*L59RVO9;02_2[O=VV. _9 \4ZUXRT07J5U2]>[MI-09+-6 C0#.!@=M,%?RJG^U>=%8WGP?O;"_ @6X%Y<0Q1*>JN&WE]" IKC/V% _B'<>, /AJJVE75J MD4VCW8'VB,8\$ZR@L,C^\-ITQ72?M ,?\$ /C7P%X70Y%Q>?)5_V0P/_Z.^=> MI1j4\6E-+W7W/SW,L-C^-:4L-5G;\$0LN9/[3:LT]^MT=S&?ASI?PO\ A]IF MC:5;?9U,8N+@LQ9I)F4;V8^OO?0"OG#[MGXOWOC#Q]X3O]*NT?4-OB_LX6V:^QU4*, < 5X;XD_XJK]ISOK'[T.BV?GOZ!L%A_Z\$H_"L MIX6E71^RDO=78]*.>X *,1#^8>=ZTI*.Y>]>FWO??2YUGP/^`\$GP6^\$JAH%WM=_,[FT62XN)(0=F)B694SS@=!ZU\>7/[=WCY?'#WT<=B/#ZW!4:2T')A#8P9 M/O;\=_7M7Z\$D9Z]\J^2/AQ\!/!'C[XT>,-:FTG.EZ;?,X+*.0BW:4N3EE[C* MD[>950Q:->=475G6ORV2>NKEU5KJUL?6&G7J MZC86UVBLB7\$2RJKC! 8X/O5SFOFW[KG]H?7?@NFAZ5X;@\@34-11YGO+B/+L M4:D#:J"]Q)[!6_^R?\ /5/C;X/U.;[6:]5+=N5@EGMT*1SRJ[E8+V/!! M'MXXNFZWU> O'#4R/&1RY9KRKV3=M]= [7MVOH>YT4E+7?:/'QM_P44^&\$>H> M%M(\=VD(%WITHL;UE'+O.?D) P!U_P!'-? 3-7[#?'[PU'XN^"OC32Y%W"32MY Y%' ^VBEU_ 'E'%CGO+*">N*]7#2O#E['A8V"C4YEU);6%KJ\@A7K)(JC\3_M7L:H%P , <"O-?]C[LUY)" /DMU,A^OO?Y]]]-5:]C#QT;/FL9+WE\$(["95_WE8\$_ .BOD=17U#^PU(1K7BJ/G!\@A; QYA48Y7H2+ MRN5L7#Y_D?7=%%%?*GWX4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ M% !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 M %%%%\ !1110 4444 %%%%\ !7QI^W!;E?/\AR;^%M.=/Q\$I/;^RZ^5_VY]*+ M:?X4U-1PDLUN[?559?Y-7?@96KQ)/S6/-A)?+SY*9JB8^M.9JH:K\ 9]-N MY>ZQ,1^5?3MV1)&/,['E>JW9U#5+JX]SYDA(^G0?I43*D=#21KGKUJ917E M;L^CV1^NO[, CB/X@? PEJBOOG2S2SN!G)\$L0\ML^YV@_C7J%?GU_P3]^,L M7AGQ+>^ [4G\NRUA M&GLYX2Y PT?MO4#'NOO7Z'5XE:'LYM'TV']j*K33%KD MOB/*_#/Q8T>/3? \$VFij)%O\$ _F1-N*21-T)1QR,BNMHGGE&,URR5T=M&M4Q153 M6E)QDMFM(CA)-(\^?)@9.]5'AS25MK'3[:.^>&,DO.Z(6.YCDQG;C)KX.\, M_M2>+ +7^.-A>*92VUI3<);+8MQ45BBD;A,<[ANR">1%?3]\$DT;QNH='&U ME89\J(BO)-_91 (^&OAKQDOB6QT+;?1R^?#"S-!#)G.Y\$/ (/3J!7FXG#UY M.'U>7*D?693F.5PIXAYO0]M.>L6[-WUZ09WL^9:GK998T+,0J@9)8XP/>O#/ M@=(OBGXH>/O%"LLL/G?8X9%.X8W=C]\$YUL_M4^&?\$WBWX+ZOIWA432ZBSQO M);V[8DGA#9>-?4GCCOC%>,?L)? #WQMX2U;Q'? :WIU]HVA7%ND4=K?(8S+>%W#/O6\L5*G75!0NI+<)\.0T<9E[S2>)494I:4^LM+=_-VT>Q]9>(M4 M31-U'4'.U;:WDF)_PIU2:\N_9=TMH/A_=KE3T+##8JZZ(XB#J2H6=)]_(NMD^(Y*;2E'V?O12O[W-I MK;M9? U8<21K@!PI'8EES]*[B'2_"7], M?PGU*[L; VFCZ;\$;F=8R7EGD.%&6/)9F*C)Z5T7B;X=Z9XL\1:'K%ZTWVC2)M#)#&CX1B>?F'U%:'C#PEIOCKPOJ6@:O\$9]-U"(PS(IVG!Y![\$\$ @^HHJ4XV MYZ:7/?\@P>(Q)*JNCBZLGA^:+Y\$W:R^)\;)O4+^ W[8=E\9C>&KO07T.] MFC>6S=;CSEE"#+*WRC:V.?0U]&5X;\%_V2?#'P8\43>(+6_O=7U'8T5L]YM MMT;AL!1R2.,GMFM);]I_PS;-_IJ3X;-WO_)E6V-[M'DB**VMZDD;#_1H<.*WMV7: ^DP<6[V/SK,)]F^AVO@7231^CB:1<2W)W MG/9?X1_7\;Z912(H P!P *DQB0HXQY58^)]J3^#.HSHNZ339H[T>R@[6\ WRQ_*09ZMSO\$6BP>)-!U'2KD!H+RW>!\C/#*1G]:TIS]G-2[&%>G[:E*GW1^5C-61XG8CM0;X@_P#+/'ZBNAUS1[CP]K5]I5VI2YLIWYMY%;KE6(_I7/^((_.T:]3J/+-.?7 MR=XNQ^=07+-))SS)5J5%IJC-3QK7G'ND]G<365S#Q!K].OV4_VDK7XT>&4TS59D@|8Z?&! =0G^U(!.@_]XAV/L17YB*M;'AGQ M%)?@_7+/6-&O)-/U*T<20W\$)P5/H?4'H0>#656BJL;=3>AB'0E?H?L]2UX!^ MSC^U9H_QBLX-)U9HM)\8(N'M6.V.[QU>\$GOZIU'N*]^%>+* H/ED?24ZD:D> M:#T%H[H]J#02C%+10 F**6B@_HHHH 3K7+O\##PI)XT7QN*XFO(OVAOCS9 !SPVT5IY=]XJO8RNGV!/"JO.D](U_4#\V%3JJ MU&UV/ZQ+#1E-3Y5:SUMIV_X!\S_%!_B@WBCQ%HWPTT:3SOL3"^U+8?E\$I&(_MD;_ =4EC_RUX+H>CPZ+8I;1WFDOKW4;ZY> U:_E:XO+V7[_MLC']/L,JJN*M?68>@J,4NI^>X[&/\$S;6PYO/PIP];.=J=78>2Q*_0?\9H). MGP[&= 1U*S72>.",]'XQ89_P"[.:#O"?AV?Q_XFTK1!;U;:YZ2>p8C)_M_9K].M.L8M+T^VLXI\M@MXEB0>BJ!^@KQ5_] ?8U^9]);3Z?=SVMU\$T_M%S [12Q.,%'4X/(TKZ)!>;:4^5[H^*S+##^QK\ZVEK\SRT1F-BIZJ]<&I56K^MN6OV;5)L#"N=X'_ .O515JK692E)=CE%3QK3\$6IT7%-\$.DUO([K-%-\$[0S1 ML'22-BK(PZ\$\$=#7UA)\\$OVY=4-\QV^D^X.9=:T] \$358_/M48_P!M>D@]^#]: M^3T7/-6(UI3I0]*TD53KSHOF@S)=O!/Q&\-?%;3%OO#NL6NJ0\$980O\ .GLRM'YE/U%= '7X[Z+JU_X?OH[W2[ZXTZAC^[/:RF-Q^(->[^!]_VUOB%X95)=(2>T\ M2VR)^Z='LFQ_OIC)^H->;/ R7P.Y[/-(/2Jk'Z(45\K>'_V_/#MTJ+K\AK4 MM/D/5K61)T'Y]3^E=K9_MH?#"Z4;]2OK5NZS6\$GVP"*Y'AZL?LG?'&8>6TT>MZ45Xi+^V)\+XUW#6;F3V2QE)_P#0.Y[5_P!N3P-9J]?L&GZOJ3]LOK\$OXEFS^ ME"P]5[182QF'CO-?>?1E5[Z^MM-M9+F[N(K6WC&YYIG"(H)23P^_,/7%[+0-#L](4)":Z_J2^/0\ZMF]&E-G83JWBR^UW\$>;2T,%N2.#,XY(_W5S_WU7V77("GP#! M\?- NF:%M:M:6%(-JQ*H_UDSAZ'WP>]?955MM2TWZVU:(QN+*)@2YM+B-HI89!E74C!!'TK>C5=&:DCEQ:CB;IR/QW\1VGGVZ_MRJ,M%U^E<[YKZ._.,^!%W\?'\$C/DEQX7OG)J[D\^7W,+G^\.Q[C\:^?KNS M^RW!4?U2JM-45/&M4C)LHJ5%J[K5,J]ZH8Y5J0M4BCCWIZK5(S'*M3+356I5]^M69L!Z4ZA:6@S'OJG]D'X.MO'CG5H,#F/2XY! MU[_[C])^]*P_9^~"%S5_\$ NKV-X?#5DX-U-T\YASY*'U/<[A]:^^+.S@T M^UAMK:)(+>%)'"&,*J@8]*['8GE7LH][3Z?*, 'YR6J+1;?YDM+117@' MV(4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ M!1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ !1110 4444 M %%%%\ !1110 4444 %%%%\ !1110 4444 %%%%\ &-XN\):5XXV/WFB:S:+>:=)LDC;J/1E/9@>017Y MQ?M!_ L[ZO\'=58L)+ PW.Y^QZFJ_=](Y)?[K?H>WI7Z;51UK0[#Q]I=SIN]6< M-_87"&.6WG4,CJ>Q%=5&O*B_(XL3A8XA=FNI^ -GE-&Q5A@U-&M?4_P ?/V+] M3)*M<:UX)CFUC1AEY--^]=6P[[/^>BC+_Z'O7R]Y9C=D8%64X*L,\$T('(&O M+ /EJU*=&7+-"QKTJ95IJC14RK6R.63Z#HUJ=5XIJ"147=6B,6QT:UM*JTBBID6J,V.1:E5?RIJKTJ7';M5(R;%6I56FJM3O>PK(;%5:>*/04^.-I)%MC16=V.%51DD^@>F9,2O4O@C\]4^+FIK(/)+#PY'^+B^QC@OCJD?JWOT'Z5W MGP7_&3;[Q\&K^,TDT[3>'CTP';//Z;_P"XOMU/M7U_I>EVFBV%\$C86T5G9MP*\$BAA4*J@=@!7D8K*%\$X4M7W/I,!E4JC52NK+MW*_AOPYIWA+1;32=*M4L[M"V39'\$@_4GN3U)[UIT45_ =O5GV22BK(****OPHHHH **** "BBB@ HHHH * M*** "BBB@ HHHH **** "BBB@ HHHH **** "BBB@ HHHH **** "BBB@ HH MHH **** "BBB@ HHHH **** "BBB@ HHHH **** "BBB@ HHHH **** "BBB M@!\>^, [+?@ [XM-+>R6YT77F'&IV*@,_Y_Z:JT?>?>O8J]J,I0=XNQ\$X1J+ MEFKH_-;XE'LH^//AP\TZZ?\)!I29(OM+4N0OJ]? WE_4>]>1B,H[(P*NIPR ML,\$T(KJA,5P_CCX(^)/B(KMK?AZTN

M8\#?'SQ[V=3BN],\27TR*P+VE].UQ#*.ZLK\$_F,\$5X\$LYI*=E%M=SJ3I^'N M83P_M)58J?\\ +KJS?Y->9^L=%<'\\%/BO9?
&7P!8^(K2/[/*^8;JUSDP3+JY M<]QW!]"*[RO=A.-2*G%W3/S&O0J86K*A65I1=FO-!1115F 4444 %%% %!11 M10 4444
%% % %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% % M !1110 4444 %%% %!1110 4444 %%% %!1110
4444 %%% %!1110 4444 M%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110
4444 %%% %!1110 4444 M%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110
4444 %%% %!1110 4444 M%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110
&_8E?C_7=A_A/Q7Q(XE_WA_OW;\\?\\BWI/ 7I# Z M^ "3^?)X?SKJ\\V_# (MZ3_ UZ0_ @\\ "IQ'0O"?:-.O)/VKK.[OOV??
&_&F&:0 M6H=U7J8U=2P (\\&O6ZAO+.'4+6:VN(EFMYD:2-QE74C!!\\H17GU(>TA*=6/ M;P>
(^JXFGB+7Y)VJ'<_ &+Z45]7?%[A'Q#IFLW-[X\$:'5-(EWR M?N GAU';D&N:\\#?L- \$/Q)J<2:W%;^&M-W?
O9YIEEEV]]B*3D_4@5\\%+ XF, M^3D= P /O/ZCI\\49/4P_UGZQ%*VS?O+RMO?T:/^>"-G=P_#[Q1<2!A9S:HH
MAST)6)0Y'Z#*^LJYSX?^ J]^&OA/3O#NBP^386;:5W'+.QY9V/=B>371UJO MA:+H48TWNC^:ZQT*%% %!1110
4444 %%% %! M1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110 4444 %%% %!1110
(LIK^NH;*TA7=)<7\$@2-!ZEB<'O_P!H+J]HGPW^SWX5&HZN_ MVO5+D%;#286'G7+ #O_LH.'I[GBORR^-
/[1'C7X\\:J]QXCU)DTU6)M]'M6*6 ML [#; &?]ILGZ=*VITG/7H<]2M&GIU/T-^(' !0+X3^"II+:_QO[OQ5=H<%= 'MAW19]/-
K>!?^"B?PK\\531P:K)J'A2= MSC=J4&Z'/_72,L /=@* +.BAT8,%B:BW/WH/6M*OQ#^% P_8/%WP;UI=3\\):S-
IDF09;.:ZWG&?NR1GAA^OH: 3; M]F#J\\L'O/C]:KI5ZD>A^,X8]TNFL^8[D /M;^*7_AW7+J]TF?[/+;+ #Y;G:&RN7!Q
MSW^F3I!(M^&\$18L18=K'CBO6Z^^(?^"7/ M_ (F_>_ \\L(V_HMJ+\\WJY*B49-([Z4G*"DPHHHK,U/[C]^V#X: 9Z\\46&AZU
MHVJZC<7EKJ\\22Q\$915W<^<'8;74I/NZ?J8-M,3Z_-PW_FHJ: !+!0JP<@?P*6OI;]GCJN M+Q=\\[BVTQK#-XJ) A#;W#
[KJU7UAD/) _N-QZ8K"=#K\$Z*>*3TF?JQ17. M^ /B!H/Q.\\+V?B'PWJ\$6I:7=+E)(SRK=T=>JL.X=%7(=YXC^VI_R;!X]_Z\\
ME_ \\B5^/J?L!^VI_P FP>/?^O)?_1B5^\\ 7=A_A/Q7Q(XE_WA_OW;\\ M?\\BWI\\
UZ0_ @\\ "OPD_B7_>\\Z_ =OPQ_R+>D_P#7I#_ Z_*G\$=")]HTZBNK@_M6MK-.P)6-&<@=>\\FI:I:U_R!
[[_KA)_Z":XST#Y%D_X*=> XY'0^%O\$1*,5/ MRP=CC_GI3?\\ AY[X" _Z%7Q' _-P?_*_-^Z_P"/NX_ZZO\\ ^A&HJJ'V,#R?
MK%0_ ;SX0_ \$ZP^,7P]TKQ=IEK<65EJ*LT<%WM/Q=K%3G:2.H]:_F*O!OV&_ P#D_MU_P3_P!<9O\\ T<]>\\UP25I-
'J1=XIL*1F"*68X4#)] [5S/Q&^)'A_P"/A.\\ M\\1^);]-TRU'+^EY&/W8T7J]SGL!7Y>_ M#_MH>.,/C;=7.G:=-/X9(\\\$E4TZUD
M*RW"^^L[CDY_NCY1[]:N%-SV,ZE6--.GWQ\\2_VSOA5\\+YY;2\\0KJVI1\\-8Z. MGVEP?0L/E7\\6%>\$:Y_P5(TF&1ET;P#?74?)
#)?7Z0G\\556_G7YJH48 P** MZU0@M]3@EB9O;0^[[;_ @J5<+*#'_&;K-L6ZA7ZE#N_\\
'_ ;^BJ=&#Z\$K\$5.Y^XO@/XH^X^_B?IOV[PMK]CK< M &6^RR@NG^\\GWE_\$5U%?A+X9\\3ZOX,UF#5M!U.ZT?
4X3N2ZLY3&X^N.H)CQ7 MZ" LM_M(P>.,KRS]?\$=H_.UJ4B*BTUM0([>Z;H%E'2-SZ_ =/M7-.BXZK4[*>(\\
M4)]:_^UJ*2EKF.L***HZWK=AX;TF[U35+N&PTZTC::>YG8*D: 9))_ %VO*O_MBE^_U#\\-?A!
(JOX@\\2V_ JHKUTVR!N+GZ%\$SM_X%BOB+J]I7O?7?B!=7>@?#^> M?P_X9R8WU),I>7HZ\$@]8D/H/F/VA<<5)?%J?O-
17P7^RO^WW+> M7=GX3^)]JTGf2\$16?B1@%!;H\$N_.3VD^X^M?>22"10RD%2,@@Y!%
<_\$WPM\\+)]I>*>=V_L#0HX=5;7\$>]89#F*Q0)]<=>H3OU.!U_7QIXXU_XBZ_/K?B75_M;G6=3F.3/_+Q#X7U?
00QP9K>1+N-?QXJ)4(OX=#2.*DOBU/W;HKY)_9%_8@^+LMOX1\\9&&P8!<6UTF\$AU+_ M_Y
_O?;T/;TKZVKBE%Q=F>A&2FKH****DL*XCXS?%C2/@KV=4\\5:PV8;5_M-L%NIPJQ,W"1+[D_D_3VKMZ_,C_@HQ\\7I?
%_Q4M_!=I/G2?#;:ID4_+)=R*" MQ/KL4JOL2U:4X\\K&56I[.SYQ^)OQ+U[XN>-+ _Q/XBNFN;^Z;Y4!\\EV^?\\
M#%&_Rj/SY)Y-%="0"YNFW37#@F.VA^WY7]@.W-K)^9SF@^'j4\\4ZI#IFC::=Kj,QQ':V<1DD;\\!V]^E?0'A?_ (])
M_&'Q';/Q5,XKJ)O@E'O?P^\\1Z9X>L5-VRC[7JDR_M@W-T_ =F;L/11P/UKTBN.6(?V3T(856JYGY5>(?\\
@GC\\7]MFGM;32M;"C<8 M.[]OJ'_R?QKY_6>#=>\\ZL^E^^(J'O^U!>MO>Q%&N#T8>X)?NK7&_ %+
MX2>%_C'X9FT3Q1ID= ;_#YF7)U.OP->@_ M"? O5OV? (A3^'KjVN[&5?/T_M[4-N\\15Z[^U
MQ_RG3^!'C5OXC/[[_@FM_RT^&W@/'7_%%]_Q[MZ79R7)7.-[?*GU9L#\\:Y*WQG?A]*=SY(_ ;^ :@F\\+6S_ #7PM>&'5;N(-
K%[M"V&MX6'\$*D=&<)-3U[59FN-2U*X>ZN)&/5_MV.=4J.I*X5WWPU^ WC[XO-GPIX:N]1M=VTWS@16RG_K_MHV ?
PS7OO[%/[\\'Q9*^-O&5NS>\$X)2MEIYRO]H2*>68]?*4_.>PK]*M- MTVTT>Q@LK"UAL[.10D5O;QA(T4=
JC@"L:E;E=D=%+ #Zyi;'YAVG_!-[XL7_M%JLDMQH-
M*1DPM=LQ'MD+BN!^('I&_Q;^%G+>WWA=J2L(P6>YT>47051W*K_M\\P_*OV"i:P5>?4Z'AH=#\\\$CP2",,\$!!X/I25^G_
_UY^QKI7Q1T: ^\\4^\$;* M+3O&MNAF>&W4)'J2@9*L!QYF.C=SP>N1^84D;PR/'(C1R(Q1T<896!P01V(-
M=D)J:NC@J4W3=F>U?LJ_ M&ZA^S[X]BEEEDF)ZBZQZK9#D!>@G0?WT_49%?K
MSI!_JEC;WEI,EQ:W\$S:RQ31G*P^NC#*L#Z\$&OP:Kj/_P#@G3\\5)/&WP=N/\\#5[;_M9;_PQ\\ 9HRQY-LX+1?j]_OT_K'O#
[2.G5#>1GH/[G_]L'CW_*E_P#1 MB5^/?!L!^VI_R;X] Z\\E_ \\B5^/j/#_ "3BOB?Q+_ O#^=?NWX8_P"1;TG_M_*)[(?
0!7X2?Q+ O#^=?NWX8_P"1;TG_*)[(?_0!4XCH7A/M&G5+6O\\D#W_M_\\UPD_\\035V]6M?@>_P"N\$G_H)KC/0/PCNO\\
C[N/^NK_ /H1]I;K_C[MN\\ KJ_ *_\$BKV#P'N?KK^PW_R: P""^N,W_HYZ]MUC5K30M+N]1U"X2TL
M;2)IYYY#A8T4\$LQ]@!7B7[?#_)K_() ZXS?^CGKRS_@I^\\7I?#/@/2O_VGS_MF.Z\\0.9KW8<\$6L9'R_1G(!37F\\O-
4:/9YN2FI/L?(7[4'[16I?M">)/+O?) M;^%[!VCTG3SP%3.#,X[N_7V&!7C5%6=,TV[UK4K33["WDN[Z[E6""WB&6DD8
MX50/4DUZ*2BK(>4G-W9!'&\\j11(TLLC!4CC4LS\$].IKW7P+^Q'\\7O'EK_M%=Q>&QHMG)@K+K\$ZV[\$'H1'RWY@5]U?
LL_L@Z%\\#M%M=6UBV@U;QS.@:>]D4_M.MF2.8H<],=" 4_2OHRN25?I\$]]>%TO,_+C4?^"7TS^V5^R>?@1K\$7
MB#PZLLW@K4I?+5')9K"8Y(B8J.T.#M)]"#7S-79&2DKHVZ47!V9^CO[7]3ES
MXXL#\\.O%\$XUQK>GP[+O)FR]U;KUC8GJZ#OW7Z5]HU^%W@7QG?\\ P[\\9Z+XG_MTQV2^TJZ2Y3;_?F0^S+D?
C7[>>?%\$-KXM\\:-7K=BXD\\1M8J]@<_*ZAA_M.N&M#E=UU/3P]3GC9[HU"<D\\5^77[<[45Q\\6/%5QX.V7C+X-
TF8I^\\+8& MH7"G!?'<@GTK[?;?^+TOPG!^H"PF\\G6MM>'9I,9D2R@_3)3%?IQ17&Z\\ST%AH6U/Q
MC^\\)W[,7Q+^\$4#W7B'PQ.-3[VH6+TPMU_P!YD^\\(^%>6@\\CD5^\\W7\$84GF>)1]W'2_MCC'(Z&Mj]=;F=I'/5P_*N:))\\
(D!@01D5^AW_!O\\ ::N/\$EN/AEXGNS/J%I\$9_M-&O)FR\\T^CYH&)ZL@Y7_ &_M-Y(=-%\$^('I'J7,LNIW"9X8(D?
Y%FKSX1YI),I/E@Y(^\$/'7B'4?%VO:A_MK>KW3WNJ:A.UQS\$S3Z'DVW/VG6!:0%_W2-_%(Y_B9CR2:Z:N^5>5]#THX6-
O>/Q\\A_BE!_'P8N\$3Q;X?_MFT^"1ML5]&1+;2-Z"1>,^QP:X&OW7\\6>\$)]<>'K[0]2UN[>1989XFVO&ZG*L#V(-?
L3^RO!:\\<_@_I_M>NW#+_.-N39:FB\\8N\$RP'8,"&_\$CM7XX5]H?\\\$Q_&\\FF_\$3Q1X4DD_T?4[%_M;Z*/_IK\$P5C_-
\\N/RI5HT;]@P^\\6=NY^CU%%>>>J1W\$Z6MO+-(<1QJ78^MP&37X9^/O\$4_B_QUXCURY;?j]&HW%RS?[TA(3%?
MMXT9E\\&Z4^++?";j?+ M:OPJc+,@+?>[6NS#]6>?BWL A: 2?_@FK\\,H="^&I.^-X1_..NW3012,.5M_MHC@_T+[B?
H*_-BOV\$ 8P2*/J'F'P (>4^QN?^!&;3=^N:TKNT3"/J[GM5%_M%>>>H% % % 'S) P4\$^&<'C?X#WFM)"#j?
A]5;^&3'/E\$A)E^FTAO^ 5^5E?M_M9^T,D4GP)^('S_ZDZ>;OIY35^*2_ =TKOP[\\UH\$S%+WDR6WO)=/N;(N [9[
M>19HSZ,I#_F'7I]>8-B'PIHVJ_Y^V4-QG_?0- 6OPH;[I^E?M;^SS,UQ_M"?"A_*WFT.S)[_LEJ<1LF5A7JT?
EA^UQ_R15TQ^%\\j4^<GZ'_P#!+G_DV3?^_81M_P#T6U?];?\$'_M_!+G_D3?^?V\$+?_P!%M7V_7G5?
C9ZM#^&@HHHK(W/S2_X*;\\)8_#7_8%_M_P#S:5\\25]@_\\%O^2Q^&O\\L" _^UFKX^KTZ?P(\\M_\$9]7?\\\$UO^3@-0_ [\\
M4_\\Z-BKZ1_X*2>*GT3X#6VDQ2%'UG5(8' /WHT!D8?FJ_E7S= _P36_Y_U#
M_L!3_P#HV*O8/^"I3,!O@!1_JSJ=QGZ^3Q_6L):UD=;'@S\\:V!/WAFX;_M>+]\$V6F?M.JWL-
G^CL7<+G\\B:QZ]>_9%CAE_ :5^'XG"E!j(8;O[P1BOZXKK_M;LFSABKR2/UY)>%[#P7X9TO0=+A6#3].MDMH(U&_%4
#3U_&M>BBO(/>"B_MBB@!*_)] [JO3X9P?#OX_7US8PB'3_!!NJ(BC"K(25E^KJ6_P"15^L5?GK_M
,%25B'B;X>.,>>2j#>NT/%M_4M6]!VF;1=JB/O;]M_M3_DU_P>_P#7DO\\Z,2OQ_K]@/VU/^37'_O_%Y+_P"C\$K\\?
ZQP_PG1BOB0?MQ+_O#^=?NWX8_P"1;TG_*)[(?_0!7X2?Q+_O#^=?NWX8_P"1;TG_*)[(?_0! M4XCH7A/M&G5+6O\\
D#W_\\UPD_\\035V]6M?@>_P"N\$G_H)KC/0/PCNO\\ MC[N/^NK_ /H1]I;K_C[N\\A_KJ_ *_\$BKV#P'N?

KK^PW R: P""O^N,W HY MZ^\$OV^/%3^)/VEM=@W%H-)M[>PB'883>W CTC?E7W;^PW R: P""^N,W HY
MZ .'lJQI&_.0^(9E^_].T@' ^Z ,?I7'3 B2/0K/JS'Y'E%?77 !-WX9P>*OB MOJGBFJA\$MOXE?(M?HE_P \$N5C_ .\$\$=\,O^N.J
MPA_H(1C^M;5G:#. ;J]17/MRBBBO-/8"BBB@#C?C\;/XJ?#/Q%X7O8P\>H M6CI&UG79/!
(T,B^CJ2K#P: >BOP\^+<\$<? MQ4\9);?>ZZQ=[IYK?US79AWNCS\4MF%Q*V^73S-IY M.>R2':/P4J/PK\DJ_3_
(J)R&3JGF\!Z+KUT!]/+A/].TKKW+F>?%OV/\$/^ M"GGBJ2^ ^)A+P\KDV^GZ:]VRJ\O,EDV ^@QK^=?%]?3G_
44>5OVDKD/J@+ MM?+^F&S^N^: ^8ZTIJT\$95G>HSKOA+XVL AO \$71/%%]HZZ?%iQAV+^L5.Y]X?V29 M_P#HGD?
(-# P#&ZKZA P %.VU/3[FSN/AM!;/W\$30RQ2:H=KJP(93^ZZ\$\$ MU\+T4>QAV#ZQ4[DEPTF^20G T&OI?
M @F\& X9W8G[IU>ZQ_XI[7RS_ ,%/'^3DF [EG_Z'-7%!O6>C4?A? (^7Z^ ML \ @FKX?CU3X[:GJ4J;CIFCR/\$V/NO(Z)G_
+Y+ G7R97VE_P \$OO\ D\I'C M3_L%1? \ HZNBK\#.6C_\$1^CE%%>8>R?%GG_ ,%1/#\4/B;P)KB(!-<6MS9R
MMCD\A'5T_]#>OT,KX5_X*D? \ (" \]?]=U_Z+6MJ/QHYZ_P##9^?=> ?L)ZD^ MG?M0>%%0X%TEU;M]# [?'^R"O
:]N_8H_Y.D\!/? 7>X_]9J[Y "SRZ?QH_7_M4M%>4>X07MJE]9SVTG,W=#V M^R,*_ =BORN_X*"?"J7P\;YM?
@A*Z3XH3[8D@'RBY4!9ESZGY7_X\$?2NK#RL MVCBQ4;Q3['S%7Z<_ \ \$W_ (BP>)/@O<>&)]?(E)=&'MN+C*_ , M:O2/V? \
XW:I\ _B-9^);!6N;1A]GU&QW8%S;D@E?9@1N4]B/ /BW\X5MO\$'AC48]0L)@-P4XDA;NDBJ58>A_E75UYA[%
M[ZH***PO&OCCO_AWX\1:E!I>EVJ[I]YVP/95'5F/8#DT#/\$?V]/B+!X& M_9ZUFQ\T+J'B!ETNWC\SR58YE./0(&'_
A7Y.5['^U% ^T+>_ M#?F)M2"26GAZ MP#0:59/U5'?FD.5Z=*)&S'/KU':3TV!ONFOVH_9R_Y(V?_
M^P%9_P#HE: %>ONFOVH_9R_Y(V?^P%9 \ HE:RQ&R-L+V3/S#_ &TM/?3? MVG/'" OYFGBN\QV:),5XG7UO_
,%*O!CAY7A;L6***Q?&7C#2/ \AC4?&\$&NWD=CI=C\$ M9III#C@#H/5B>_ .Y- \ @I=X:?.5/@CI6K(AC(RAE/Y&KM?
GO^PK^UU8^&[&U^&_ C6 M]6TLU; ;HVJW#8CCR?^/>0G[HR?E8\OCY)IEG*];3P[:+8,RG(\DO+^(+*I_W: M^R_VL/VL-
(^!/AVXTO2[B&_<7D16UL\8-JD!' ^NFQT_ZA3RQQVYK\G[R\N- M1O+B[NYGN;JXD:::0Y:1V.68GU)-=#OS,X,345N1\$-?
1/[?_ "&W?7? 7QYI48S)/I,Y4>I5=_ LM?BS&VY%;ID9K'#_ "S MIQ7Q(7^)?JX?SKJVO^K!_ #&D,IRILX2#_ P %?A(R[E(Z9%?
K \ L>_ &"Q^+ M7P3T)DN\$;6=(MX].U&WS\;QJ%5B.N&4 @]^?2EB\$]AA6KM^N%4M: _Y]_ M -<)/_ 035VJ6M? \ ('O
/KA) Z":XCTC\([K_C[N\ KJ_ *\$:BJ6Z_P"/ MNX_ZZO\ ^A&HJ])@!\[GZZ_L- P#)K_@K_KC- P"CGKX(;L\>R>'VFO%#%2
ML6HI;W\1/O\$ P#@IGV*9=0T/P \ M0+*\$N=-8Z=J!4=(7.8W/L'R/^!UPPE:JSTZL>:BO(/:OLS_)F \$.'0_B% MXB\
(W,HC&MVRW5)_J. TT.=R_4HV?^ ^&OC.M3POXFU+P;XBTW7='N6L]4TZ=; MBWF7^%U.>?4'H1W!KKG'FBT>?
3ER24CJ]J*: 9O_ :6V?M!>%HIK6:.Q\2V M\;C4='= WD3XY=; ,>C)Z\$=.AYKV6O+<79GM]2DKH***ANKJ&QMIBXFCMX(
ME+R2RL%1%)X %?9@?%GQK9_ #GP%KWB6_D\$5MIEG< ,3W8#Y5'N6P![FOP
M]OKZ;5+^ZOKC_CXNIGN)?JYV+^]2: ^LOVX?VLK;XL72^"?-SYOA6RF\R\OD MR!S?E" ^L:GG\ \$>>@%?
(U>A1@XJ[ZGE8BHIRLN@5^GO\ P31_Y-YOO^Q@ MNO\ T7#7YA5^GO\ P31_Y-YOO^Q@NO\ T7#3K_+#?
Q#PC_@IQX9>P^+'AG6_MPA\$&H:48"WK)% (8!+M)12,C[Q&/J17U\ _PZVE_Z*#_ .4[_P"SKX2M;J:QN8;FVE:"
MYA=98IHSAD=3E6!J00#7ZO?LE?M7:5\=/#>OI.K7_-EXYLH@MU:;P47@_QY\ M7KGJRC'D:/IJN<=8E4(TY>
]:GAO_#K6;_ HH0_ \ !=_]G1_PZUF_Z*\$/_ !=_ M]G7WYQ17+[:?<[?J]/L? ? \ PZUF_P"BA#_ P7? \ V=+_ ,M9? \ HH/_)3O
M_LZ^ ^ ^*^1_VO?VTD^\$=S; >&O_UU9:CXJ68/?R2*)H;2, \LVP>9&], */>JC_M4J2=DR)4J4%=H\ X=:R_P#10? \ RG?
&=.C_X):MSO^ (3>VW3A_P#%U%X) M_P""H4?EQ> ,/!2R# ^*ZT6XQ^/ER?_ %U] \$_ #?]M3X4? \$R_L].LM>DT[5KN18
M8;#4K=XI))& .BG!5CGT-5)UH[DQC0EL=1^SK\%D^ ?PSM_ :ZF=8,=S- / ^P5%_ P"CJ^+ : ^TO^"7W_ "4C MQI_V"HO_
\$=755^!G%0_B(1RBBW,/9"OA7_ @j1_P @+P!_ UJW7_HM: ^Zj^ M%?^ @j1_R_O' _7W=? \ HM:VH_&C"O\ PV?
GW7MW[%_ ")=X" Z[BW_ *2S_M5XC7MW[%_]TG@+_ *W/ _I+7?/X6>53^>I^P% %>4>X%>7?M?^ ^P^/G
MPSOO^UR4@U%/J)TV\89BX4':3_LG[I]C[5ZC133:=T)I25F?A-XJ\+ :KX\
M1ZAH.N6WY95ZB*8#JN>AZKV]*_+CXD?"_Q1\)/\$_.FB^*)FTN\4G8SC,4ZY^ _& MXX=3[?CBO2IU%-
>9Y%6BZ; \B/P!\2O%'PMUD:IX4UNZT6V\#FW?Y)1Z.A^5A_M]17TWX9_X*:> /]+M4AUGP[HNMR+UN(VDMG/
\$9%?'_U%7*\$9;HSC4G'X6?9_M'B+_ (*=>.+ZVDBT?PKHNE2-JVXFDDN&7_@/R@U\T?\$KXP> ,?B]J:WWBW7KG
M5G0DQ0,=L\$/^Y&,*OUQGWCJ*481CLARJ3ENPHK7\.^\$=:7?;_ [&TRXU%; "MW>[NY(\$)2WA099W;HH '>LBK,P;
[IKJ]/VI3N>1SQ6=&HH^ZS7\$47+WH[GY_5[1\%?VN/B%\ M#;1-.TB_BU30E.1LJ*9(H_7RV!W)] <>U>-W%O-
9W\$MO<0R6]Q\$Q22&52KH_MPZA@>0?K4==KBI*S/.C)Q=T?:\O_5\$5:-8C\#:0MUC[S7DI3\L9_6OG;X MS?
M'>.OCM<1_ \)/J@_ LZ%].E6: ^5;1MV; ;UU9= B?; %>8T5'IQB[I%R]JSDK- MA5O2=)O=?U6STS3;=
[O4+R9;>WMXQEI]&.%4#&ZT_0]M^U-Q_JUMI>D6-QJ>I7_M+A);2UC+R2,>P
K]*_V.OV,5^<\$#1> ,/&*Q77C&2/%M:*O>FJPPY_BE(X)' M']S4%<=.FZC\CW']G_P"%, 'P7^\$V@^%8RKW-M#YEY*O22X?
YI&_X'L!7 MH=+17F-W=V>RDDK(/?_ (#_ LSS6.IS?%>PY:&2SN,+KEO\$N3\$ _1;G_A(P_M&]#@]S7PS7[SWEG!J]K-
;7,,=Q;S(8Y(95##ZD8*D'J"*_ .?J]7@K4_ "EY= M^)_ AM9R:IH3DRW&AQ_<6?B[\3XP(##!&17_MM/PG : ^)WP@M8K#3-
&J;/%PFFZLOGQHOC9W/(8'M7C#JTOF6BH5."Z&KK5'I21CU+ ,>2:AH+!>2<"M?5O".M:#HND:MJ6F7-CIVK"0V\$
M]PFP7"QE0[*#R0'R]\#GBM#4R^&B?V_P#DYS0/^O2[_P#11KYVKZ)_8#_Y M.*5!)&X*LK#((!/K\6OV@_A; <_!S_MXO>
(O#4T;+:QW#7%C(PXDMI'6C8'O@?*=37[45X+^UE^S!9_M#>%(I+XK#_MQ;IBLVGWD@PLBGDP2^ZQZ'L>?
6N&E/DEKL>E7I^TCINC^C*Z+P+ \O0\$GPSU MQ=8\+ZS=:+J^C:9;9L!U_NNIRK#V(-0>-/!.O?#OQ!
<:'XDTNXTC5(#AH+A<_M;O\ :4]&4]B.#6)7HZ-'E:Q9]0:7_P_%\$OC#&UK2SZ'=9D2-I9-.(=@2_2=
MK@9_"OT]U"0R^ \IV^ \UJS"NAK*;'_ ([3_KO'_Z\$*=2\ _Y%J? \Z]&_M] KBKQ4;61Z.&G*2?;S*;K_
(^ [C_KJ_P#Z\$:BJ6Z_X^ [C_ *ZO_P'A&HJ[MCS7N?KK^PW_R:X) P^N,W_HYZ]A\7>%=> \<>&-3T#6+=;K3-
1MVMIXFJ]PQ MQZ\$=0>Q_KQ[\AO\ Y-? \$ \7&;_ -'/7O->5/XF>W%X%Z'XK?'CX)ZS\! ?B M#>> '-45Y;4DRZ=?
< <)=VY/RL/]H=&'8BO.J :OXW? \PW> /!TN@^ (("&4F2_MSU"\$#S!.7' #H?YJ]>""*GXZ_LV^ ,O@]J[Q:W9=Z*
[XM=;M4)MYAV#'_)9M_M_LM^&: [J=53T>YYM:BX.ZV/.-US4?#>JV^IZ3?W.F:C;MNBK24QR(?9A7T_MUX&_X*-?
\$ _PM:QVVL6^E^*XT_437B&"BM7&,MT81J2A)+/M_M74/^"H7BN2W*V7@C28)B,>9-=RN_?4_9_O
/BU^U!\1OC3\$UKXBUUH]*8Y_M_LO3U\BV/IN4'+_ \)KRFBDJ<8ZI%RJSEHV%%7-'T> ^\1.K:;9I=G/J.HW3B
M.&UMHR\DC'H !1K.CWGA_5[W2]0A-M?V_ \ M\$T?^3>;[_L8+K_T7#7YA5^GO_!-'_DWF^ _[&"Z_]%PUA7^Z<-
_\$/JVXMXKJ_M'2&:-989%*/&XRX*1@@CN"*_ (\ : _9QNO@+ \0)9K&!W\':M(TNFW !(A8\ MM;L?
5>WJN/0U^NEZ2W7/"SH/NX_OCY3[=*^?E8,,@Y%>C&2DKH\B4_M90=F?4OPY_X*)?OP9:Q6>M16/C"VC_42WP,5R!
[R]PQ^HS[UZ5V_A339A_MM>'1P5E93U!F;YO^><5[.Q=F9B69B69F.22>I)[FDIT4;W\$R11(TLLAVI^& MI9F)Z ? \
P3V_9GE\Z/XI>);0HNTKH5M,N#SPUR0? M;*K]2?2N>_97_8+U/Q)J%EXI^)5B^FZ%&1+;Z#-L]V>H,P_@_3_9^ \?:OT8M
M[>^SMXH((UA@B4(D<:A550, #H *YJU56Y8G;OHOXYE?EE_P %'\A_DY)O_M^P:)?^AS5^IM?EE_P4<_Y.2;_L'6"?_H-
/^P5%_Z.KKJ_ SAH?Q\$?HY1117F\LA7PK_P5 M(_Y_7@#_ *^[K_T6M?>52"O_5(_P"0%X_Z^[K_P%K6U_XT85_P#&S^Z
M]N_8H_Y.D\!]?=[C_P!])9J\1KV[]BC_DZ3P%_P!=[C_TEFKOG+^*I_&O4_8_M"BBBO*/<"BBB@_K'"9>! ?#_Q"T632?
\$FCV>M:?)U@O(@X!])5/53[C!K=HH ^M-O^W_!;[P7K4TMQX5U[4?#>+L'[2+NUNLTQ (_MJO\ .O8?A_ \ \ \$T?
V@S1W'BG6=14RK@FW3%I;D^X4EB/8M7V)10ZTWU"- MG'H>0_\$ _P'X=^'G[.OCS2_#6BV6B6"Z'= _N;.((&_E?
+'BK_@EW>+ ,[^&' ,D_M\\$.K6A##ZO<_<'_OFOT"HK2-24=\$S*5*\$]T?F>G_3'^)'F_-XC\B/^)+_M@G\O^KO?!O\
P2]ACF27Q9XVDGB!RUKI%KY>?,S')_117WG15NM-]2%AZ:Z'_MGOPH^G@;X*V)@*:%!93,NV6^D_>7,O^J(W/X#
J]J"HHK%MO5FZ22L@HHH MI#"DI:*_/(?BU^RG\ _C\ESKN@QV^JO_P_Q33C]GN#_+S+P_ \P('I7S_X
Mj_X)=/YS/X:\=8A_AAU:RRP_X'&1_P"@U]]45I&I*.S,I4H2W1^:#_ \! ,GX_MD+)A/\$?AED_O&6X!_+RJZCPS_P
\$N]4ED1O\$7CJU@B_BCTNS:1C]'<@#_ODU_M^@] %7[:?_C-86UAFB^R#3O) MW;UVYW>8<8^E?7%4ZLVK-

D*3B[I"4M%%9&YRWC P"%WA3XI:7_ &=XJT&S MUJV'W/M,8+Q^Z./F4 0U\$^* P#@F;VM6F>70]JES&/^Q^NQ^~?
M8-%7&A!P<2>U? =TWX M+0F+=CU7&:M442G*6XHTXP^%'P'+ P \$M[F2:1 ^%BQC>[-C^R3QDY_Y[4S_M (=7\A
T4:/ P %! \ CU??]%7[:?5YFYV;[N3C[WK7?T45DW?4W2LK(*K:EIEGK% C-97]K#>VXC\$
MD;KZ,I&"*LT4AGRS\2/^=OPS9SRW>B&\7DAW%=&: MY_P2^5V\C?
V1XTBTJCS\OVRVE@;\=N^OT9HK959KJ82HTY;H_ .T_X)C?\$. M28"Y\3>&X8L\M&T[G'T,8_G7I?
@O_@E H=G+'+XK\87N]' +6VF0+;,(8NQ9 MORQ7W#10ZTWU\$J%=#@/A? ?P)\';;RO"GAVTTZ8KM>^*^9_ \$T?^3>;
[_L8+K_T7#7YA5^GO_!-' DWF^ _[&"Z_]%PUM7^ PPW\ M0^L:***X]8;)<(ZJZ,-
K*PR"#U!%?/'Q4_83^% _Q,N)KZ'3I/'VJRDLU MUHK"-&8]VB(*\ **B:*I2<=43**EHT?GCXA P""7>NPR.=")A]2A8'\A7/Q?\
!;?XC&0! \$OAI\$[LKW!/\Y>6*_2ZBM?;3,/J]/L?!GA'_ M ()=PK,DGBCQS)-&#DV^DV@CS[;W)_ \0:^GOA3^S#\.?
@R4F\.^'H1J*C'] MIWI^T77X.WW?^ XKU6BHE4E+1LTC2A'9'8I:**S-0KY3_:2_8?F^/_Q+/BQ/ M%Z:
(IL8;/!^U@9ON%SNW>807?TQVKZLHJHR<7=\$2BIJT CX_X=:7/_11H \ MP4'_./5[9^RW^R#+=^S?
XFUK5G\4+KPU&T2U\I;+R/+VONW9WMFOI.BK=235]/ M35]*O;&3_5W4#P-GT92I_G7X7^)?#_A/Q)]VB72-
'<.;=RVCJW4%*'_@ ? MQKLP_5'GXM;S6^Z: 9[JE_6(==_9[^]W"P=?[@A;'9XUV./P92*_&&OM# M]A3]K+2/AM82^ ?
&EX+#1I)VGT\$4Y\ 56[N?GBD/\^D_&Z DYZYK2M%RCH M98>:C*SZGZ/45G?:
XCTG5K5+FRU.SN[=P&66"='5@>X(-7XY%D4,C\U/1E.0
M:\]4=136=8U+P51U).!47VZW_Y[Q?]]B@'">BHX[B*8D1R(Y'96!H>>.-@K M2*K'HK, 30!)137D6-
=SL%7U8X%".LBAE8,IZ\$'(H=14374\$;%6FC5AU!8 MTBW<#L%6:-F/0!AF@1-137D6=-SL\$7U8X%1K>0,P
GC)/8.*!DU%%!!14:W M\$4DC1K*C2+JY58\$CZBI* "BHI+J&-MKRHC>C, :=*DJY1U<>JG- #Z*:S!% M+,0JCJ3TJ+[=; _/
>+ _+[% \$]%,CFCFSY;J^ .NT@TC3QK((S(H<]%)#+/Y4 M 244V21(UW.RHOJQP*%D5U#*P93T8'(H =14'VZW_P">?7_?
8IRW<\$C!5FC9 MCT 8\$T"N2T4R25(5W.ZHOJQP*[@ MN@3!-' ,\U\MPV/RH FHHJ%KR".81-/&LIZ1EP&/X4 344E+0
45%+=0P,!+- M'&3T#L!43ZI9I]J7>\@55&2S2J /UH L.ZQJSL0JJ,DGH!7X;_\$O5TU_XD>*]
M2C(:.ZU6ZE1AT*F5L'J_1?KS]L;P[X%(\ZIX7):M!]_B[4(FM3)92"2.P M1AAG=QQOP3M4+2;BIIM105^H?_!-
FW:#]G>=V! F MURZD7W&R)?YJ: +PG:"3P* 8+J]C+P?)X* 9N\&VDZ&.YNK=K^56&#F9S(,^ ^
MTJ/PJZ[JVQ_?7OW/;****\]0**** "BBB@ HHHH **** "BBB@ HHHH *** M* "BBB@ HHHH **** "BBB@ HHHH ****
"BBB@!*'_.' @HC'Y ""Q 7X@Z M;;,=#UXJEZR+L%X!C+>@D4_Y_O ^U?I?6-XP(\:1X_-W^@Z[8QZC15]&8I
M[>4< ,#W]B#R".016E.?)*YE41^TC8 "JBOJSX^>L _/ ,A/>7.I>"H9?%OALD MNL\$>#?6R_P!UD_Y: ?WEYXY%?+-
_9W.DW3VM];36-RO#0W4;1N/JK &O2C)2 MU3/'E"4'9H2WO+BSC*6]Q;-H>2L,K/(R!K]B?V0Y7F_9K\ O([2.VG\L] %B?
_MWC]2: '_D;3S7[&?L??FS #_P#[! \ [4>N?\$?"CKPOQ,[[XC>#?^%>]=6 M\&]DTX7\0B^U1+N:/Y@<@9'IZU0?
&3X+R?"OQEX9T*+Q)? :DFL%0T@\ ,9B MS*\$X 8YZYK]!*^2/VO3_ ,7?^'^^]'_Z4+5X.I)3Y\$]-R_,SHPE2]HUJK+\ M3U?
X*_L]K]':U+4%]27>M_ ;+=8/*N(M@3#;MP.X]J]I_ :FU(:9?OA[-+= M_:VD<<\$DS&0]BJ+DDEO;%?6M?
(['6VEV^N?7P%IUUV&:UO((8)55MI*_-IQHX;EI*VJ_ ,]K]I?XI>%M>^ ^#NMV6C^);&[U"1H?+AM M;D&0XE4G&#GH#7?;
LS.\GP\+,[[&[!LLQ)/WV[FO&OCY^S5X'^?PMU;7M& MM+N+4;=HA&TMTS]-TBJ<@]>":]C_&8_ ^2&>%\ KW;_ -
#:G44/JZY_ .7T% M1=5XQ^U23Y>GJ? ,?CC0=.\7_ +4'BO2M<]22>'-+ ,Q2!S7IG MPQ^!]?@K3_ '6DW^C?
\$R37;ZRE^TK8).C^8%'.0&)QS7E?CZ+P?-^U!XM7QS+- M%X?X[VM]^ _S)/CV_8]\$_ :TD>+X&ZVT;M&_F0?,C%
M3_K5[BO\$AQ^RX'/GPSTWQ3_)I?;:=7D\$U>45S^59EY;>#CY>OO7MO[7' M"]];_ZZ6_ \Z-
6OF63X&:J)]!;/QMI>N7EW#]"TUQHZE@L< (=E9EPWS8QDC M'0GTK+ #M^Q5IOZ?XBT'5KV35(-)D3[M-
=2.7*J2P*;CR5^7(S[U[K]0?&%MX"%\ZOK]T1Y=C;M(%\ ^&,(OXL0/QKR M][D-
O"LGPO1_#T)AO_QJJRONE,X'!) ND[1:GX: ^&VB_ MOM0U&=;B>)6QDD[8E/H,[F_&L]057\$N-
K+K^IU4ZKP^!4V[NVGJ]D>.? "WQ M7K_P[^('AGQYKCS?V3XFN)XYIGRFOT\$5@R@@Y4]"*^('_MGP3^+_P]AL-
8.EW.@Z!"9H+>U9/,C5\$.=I R3MS]:^A/V8OB'_PL'X4Z<\ \ MHDU'3? \ 0;KGDE -C?BNW]:TQ:52*JQMIII^!EE\I4INA-
-7U5_Q/'_CYX;D M\=T)Q(=P MP0>W8BO1?"/[\-KXFM-
9\7>*;OQ7):NKQ02JR]Q!RHI: P#\$=_ #VHM,\9LGN%!"C&^&9@>:^P/CM_P D: \9>GJF3?^@F
MOC3X5VGP4F)\QMX[NK^+7_ .<,(MN)ROE;?N*1ZUEA;^RE:^_17.C'I/\$04K6 MMU=EN?
5_/[OPWT7P#HVIS:%XGD\4V= _I-PSJZHR @J""?7FO)OB9<3+ ^VEX M1C\$TBQ&*TS&(4[RJJ]:_9ZUCP!-X:O-
(^'US<3Z=8S>9,MRD@97DR>K@9Z' MI7C7[2TEQ\ _V@O'"CNXM9)]5859D>-FW)GINVOD?2LZ5Y5Y*6[3W-L1RQ
MPM.4;633TU6^IZO>^UO(PV/UAHW:-O.@^9&/^L>M/[F]7N_ \X35Y&9I+) MU+L23R[C.: \6_ :0_.;?*\$#X=?\
"/>&I[C4;Z^GB+@V[IY;JV2]2#[/)&8P-^XYR'/3'I7H_P) 9K% MC)X3\O3O@S_R2 MGPG_ -
@V' T\$5K*O4>'3ONVCGIX6BL9**CHDFM][GF/;4LD'P=MFCDD>)O[6 M@&Z-BI^Y+W^>I? "%BWPM\LS%B=-
@)9CDGY!7E?[#_P! EKU+ MX\ /PJ*#_J&0?^@ "L]?[O'U9UP_P]G_A1\R:SJ'B?]]?XN:IX=T_5Y=%\
M):2S!O*)P45MF\@\$;W8YP"< 5U^E_LBZSX)\6Z/JJA;QQ>6MK'.#>>8NV3RQ MR=H!*OGIAAW[UPO@_P_2/^RY\=/-\$-
IXCM9_["U8MY=W&A;,>\O(O)X#)5@. M17L.H_MA>"%UK2=.TE;[7#>SK%));6[+Y/((5@ "YSC@#IGZ5V5/:QM&BO=L
M>=1^KSO/\$R_>7[ZK72WD>B_%[7M1\+ _#^Q+JNE*3J-I922087)#8^]CVZ_A7 MQA\ _?A?XI:-
>ZS\2YM)\92RN5CO),#_9;>S#>=GV(QZ5]N^/O%EGX)\&ZG MK>H6TMW:6L!=[>*/>TF>-N,=#GG/ &.?
#5WJULM[X2\0&)I%L_M; >-F4R XR %*\$]\$P1^%981OD:2>^ZU-LPC%U(MM.R^%NWS7F?6OPE)*:GX+\
M"Z=I6LW)K] ^"SWCN7!/"H3R5_QC/-=C7S]^Q7>:Q>?"NY_M&2:2RCO62P
M:8DXCVKN"D_PALX_OH&N*M%QJ239ZN&FJE&#HJRL?G)_P_%[RYM?BAX16" MYG@4Z1(2L4K*#^ ^/H: ^-I-
2094*/>W3HPP5:=R#]1FOL+ @I? \BZ7A#_L\$ M2? \HXU\ :AZUVTO@1P5_P"(Q%4*,
8'M2T*P>18U^:1CA47DD^@>O;O@W^ MQ[\1_C%=P20Z1+X?T-
B#)JVK1M\$@7_80_Y^@QZD5HVVHZZLQC%R=DC" 9O^"M M[\=OBIIF@11/ 94+K=:K< ?+ #;1N!]JWW0/?
VK]E[2UBL;6&V@C6*"%%CCC M7HJ@8_X"O/?@7\O#7P!\(KHN@1-+/*1)>ZC.!YUW)C[S'L!V4< 5Z17G5: MG.]-CUZ-
/V<==PHHHK\$W"BBB@ HHHH **** "BBB@ HHHH **** "BBB@ HH MHH **** "BBB@ HHHH **** "BBB@ HHHH ****
\$K\$]0>!_#OBR,IK>A:=J MRG@BVM4E_P#0@:W** /+IOV7?A)-(?X=>=QZ[;!%Y_5Z!X?_#VF^\$] %M M-
(T>RATW3+1/+@M;==L<:YSA1V&2:T*;;>XDDMD%8&O^_O#OBK4+2^UC1K/ M4KRSQ]GFN(@SQ8.[Y2>G/-
;]%;6J]Q4E9H2L'6O ?AWQ'J]GJFJ:-9W^HV> M/L]U/\$&>+ #;AM/;!YK?HH3:U0-*6C1G:]X>TWQ1IX0,C8 M.1D'W_ -
/T70[#P[IL&G:7:16%C_-L5O H5\$&]M3CM7^#W M@G7]2N-1U+POI=]W#;YKB:W5G*_,ET[5[&4@O;W"
M!T;!R;@^AHTOP_INAZ/'%I6GV4%IIL2&+6) (U4DD@#T.3^>:-%3=VL7RJ][M:G.^&?A[X:%SW\$VA:):9:3+< *%E:TB\$>\
Y&<=>W@P]X7FQ\$^C6;ZZO_U M!H@9AQM^]]*WZ?*-]]BY(V2MH,DC6:-D=OR,%.2."#VK\$!+^!/#W@G[2-!
MT>STD7)4S"TB""OC_,X],G\ZWJ*5WL5RIN[1@W?@/P]?>)(?%)QHUG-KD(41
MZ@ \0,R8SC#>=,G\ZWJ**&V]P44MD5=4TNTUK3[BPO[>.[L[A#-'!NY'4]01 MW%<;_P_*'^?
_OF:/_X"+7>44XRE'9V(E3A/XDF87A?P+X? \ \$K<+H.CV>D+< M%3,+2)O(SC..N,G\ZNZWH.G>)-/DL=5L;?
4;*3[T\$S&'O_@:T**7,V[ME*, M4N5+0XKP_P#!?P/X7U);_2_#&G6EZAW).(OS(?52T_3];2;&"SLX\$MK6!!'%#&,*B@8
["K% %W:P.VIC^)?!^B>_M,K(6>N:7:ZK; Y\$=U\$'VGU!/_0_2LGPO)]/W@N^ \UZ+X=L+["Z"X2(&0?1CD
MC*ZZBGS22LGH2Z<'+F:5QK(4'J#*PP01D&N'OO@7V]2OFO+GPCI4EPS;F M;[. #%'U('!KNJ*
(RE'9A*\$9_\$KD%8E8V^FVD5K:01VUM"H6.&%J*V'_J>B MBI+.;?!WP1\2+ZWO?%'A?3=-N[>,Q137UN)&'1"5/=')>?'
A+X)\(L&T7PEHNEL.C6MA\$A_+764M%(M>VP4444AA110 4444 %%% %!110 4444 %%% %!110 4444 %%% %!111

[illegible]

'FC%IW3V]UOS_ENM4=F@.TCDDCC(.3R>N2<;A@A.2_N71ES8##N.!!@_F9-_P65_X)7V]S<6MS^WK^S;!/;3W
M%KW)=ZON?YE" \!)O_(*>YVC]@]'K\$E@0I;X_.*RH([EA8X'T_M_GGC^FC_(-]?^" #7[3_ ,
(_VFO![/=(/9W@F^"6E?"V\2ZE&/@_KNH:)_M>^/O%_C/Q/X7U?PKW6D^,[[Q?;:/J5_MQIFE^'M\GQ!_5S_
@IQ_P3Z^/_Q!T+X3?;]L'X'_ \$GXF>?*[0/AKP1X_M: \?Z7>>(M>;2M/N=5U"#1]/9X9M2N[73+*]U&2SM!+=?
8; *NDA>&UGDC^Y6_M&,'>\$W,@R20.S-%C(8DEF1;:H<%=Q4[.<5]/Q;XS<99IE>+R+%A>&H9EAI
MTL35C1S2_.KX'\$1E0G1IK,J=-4Z5?F<95:<)>2LG%3AHUTXO\L56IRK2H+#[<_M6I-JHG%K; &OV*OB\._F_9:_#
M/P9M/VAM(\0_H7EKKOC#QKXE+_ _JUA_#OBSXE^-[4OINOZ8U]]IXB\%:3_MX,6W\("TO['7#]7BV>/1]4L?Z2?
VQ#SNM&EAYS_G_M1G*G4?L:L*RA3FVE*-.4E-OE\QT9PJ4J<]95(TVG'5^_4C35K.S=G?W7>[LK
M:;XSQ3^PI^P#XY\72> //&O['/!'OC#QU-R>,_%['/GP6\0>+'NG>2=KM_
M\$6J>\$;S6&N&D:27[0;PR.Y>0L6+&OHS5OAS\./\$/@6X^&NN^_ _N_#6^TR/_M2;GP#JOA;0M4\#WNB1-%-'ID_A:
[T^;0+K3DGB@GCLI+][82QQ2+&'1&^'==_M_P\$?O_G_!O5K_ [%^BWO_!2S6_ACIG[3;?\$3QY!=V?BGX@?'P]JS>;!;>YTO
M_A#:4-7V/\ \$F?CCX?_9C_&X_ ^"GO_MQ5_8;_U3]H+XB_P#!&S[G?]EKXP_&NXLO&\$_BS5?!_P#PF?PO'\^%/_&MOI7PT
MN_ '8TZ6;Q1?:CI7Q/T7P4-3O['Q-K_PYM[_>7%U+9:9K\$ _P!WG7AWC<+'MB&C'..)'6X6C&JJF>Y-C
PE#"Y)FCSO&TGCL7/&4/]%.EA*9MWBY+F<5)Z)'P%CH_ MPK^\$7@K2O"&D;:V?AA\.]MWT?
10#%A9>'!/@03K*YDGEFT02]#MXM+T.S
MMK62YN'DL;2WCAFDN)W>)FED>*>&OV(_P!B#PQXWB^+W@_JD;]E7P_ \1[F= MM7A^)_AOX!_" /2?&MU27+J]^
M&OPC\)>\$]+T.ZU"S\%>\$O".K>'K7289[_78]\$TQZ26>RLM+\.6.I:?)'J_ MB#7-6[7]D^7Q+ _P2(_X+W:3_
,\$ROA#XT3:Y^PK^U_ \.6^*O@'X0>,\$?VO>_M+(_ @9XCU;PS\0=6TEO!NHZW<3WMI+;_*/A)K_A*X2:YO9-
=#Z]H=YXGO]7\ M3>&;4SYV(X-6%Q7\$61X'B/;:G\$ _#N7XK,LJP\$, -C,!E^>6PP[S?"83,*>= _M4L1C,3E<,3-
U:N8X%4<53I8N%%"=<;0-_M?F:UDEOO"#?B+X8U3PCX_MY, ^&'/?@OQ-9+::UX8\5Z+I7B?POX@T]Y(KE;?
4]&UBUO=)U6T,L.O-D-U;_M3PL\<4JJ6CC(_P_V_P"#7Q)_8^ ^'O[6G[4^F?')_P_"VCOB7^U#XK^(EK: MZ)\0];@>ZM*/
WA^-=0CUI_#'_A?PSXQ(^ (1X"O+F6QO/AIK7P_P##GC;P_MX?,>BV'A>QT)4=;;_H\ _P"":_P^_91\ \$?LX?
M[W'_!%_P#;N^*?Q]UOQ-\+ _M_&WB3X-?LL^/_&.D:CX5_9S^(>KZ%XDNA;X5\%_ \$3P3HOQ(T"8:VR>&+36
M_ \$FN3>'O\$-KIVGVOC9?7B+18?\$\$#SK@'MDN_P]=YEG\$Y1645,+F4LFQ2X6K
M3S:I@:DW@L]P.=XREEOU2*>=6O7QD,&IU<+.*4*L?T<&I2J<[<4I32T2;DK7NTW^_GBCX.?
LM3>#/'GP1;?'W]G^3X=-:/?VU_M]X#^\$7BGP5.6)&:5J5O_ :D=I>=\$?_6KZ9_8=E?P_P]J:O!<:-I45PG]I:F_ML2ZS-
J_@#5[B;7_ _TM:/C:XTB\T;P[X=_L_M[_XJ^!V6OAS^RGJ/A?]CW]NGXE?MO_8L/&=]_8NH_ \$SQ=X?27_P"]*EMI+766_^*
(IH)+ZNXN=:V\>D6.K36\L<4\ (XWA_M3"XBM#-.)NEC* <*>+EE^88/),ZABJLG4Q^69U@.(,7A94U*"MU+,_9*KF,8.
M<+U%RQ>)PTL*K^UQ-G:2E.E5A2J*.3[2/A3\+ _C%X?B\)%?OX: ^_OBEX_M5BU.VUF'PU\1? !OA[QOX?
AU>S@NK:SU:/1_ \$NG:EI6I6UO>7D%M?I;BZABO_M+B&.54GF#^AH&M_C>#0O#_MUA>:SX:NY/[0M%AE>#2-
(MY\$T_38GD2RMX%8J]>4['! [\$!()_8S_&5"1G)/_M[/PCR"#GG_BD"3ST!].^>?
K6BMHXXO'4TH0S#,8TXI15/^T,P5.*2FE:"S"G_M2VG*_P"ZUNVTYV2E2]35TI2LTU9SG9)K6UI+U]=7<\>O_P!G_P"!I>,/%?
Q_M"U"X*?"34/'WCSPU?>"O'/C>]^&W@Z[\7>, _!VIZ78Z]J7A/Q5XDN-%DUGQ%_MX:U'1M+TW2;
[0]7O;O2[S2]/L;_ "XLY+2SMX8^P\$^ _O!'PU+;7X% ^'7@WPI_M\ P5H2W*:)X0\$ ^'-(\^*%)'6^O[K5+U=*V/Z%9Z?I.GK>:I?
7NHW*VEK" _M+B_N[F\EW7^P\$ _ (W8T5DY5)^[4K5J\$D\$E"= :K*"44XP0"5249.G&4H4I2CS4J_M4ZE*FX4ZDXRF\FKB7O-
SO96U4FU>S['E'B3X'?!?QCXZ-_ %?Q^! _X7M>* _B9X,2QB\^_ \$3Q_V_ GKWCKPE'IE _>:KIR>&O%NJ;1=-:_H:6.J:A?ZG9
MKIFH6J6FHWUY>P+_ZA34(.3E_QYYRE*)J4W=RE&R2M'167KK?O?J?X_G_!73C_@JA\%_ "2Q(-
M:L^/_F,1M!D_X2BZ&21@_LH48&T_,@U^=S9'4D=>=>!D_D=RO0Y!QGC.<<5_M_HEWO['7]OQ6_X*F^+
(_B=^S1" _'Z^/_VA?B'<^+F\8_ ##PAXC;Q_ =W&F^M)+V6XUF34M+F>_DDO8H[UY+LW+_ \$@ (4X>OVO'_!(O\X);,
'_X)X?L;L^_M50?V>?A:Q_!*[06_.B._S%N3DDL<&O[0SCQ3RO@/_<(Y5F&3YICZN(X/R#,_M%5PF*P\$**57
8*E!)8F*j*:_C!Q_B12BU&* <4DN/@CQ0RWBF["YQ+!91C,%_J_ MGF_X=K?
6JF%OB*^6.6&JXBEI]=1_4ZSP]JT(22Q"G4E*O*2DT_ \(\$)_PK#Y= _MI&6&U""\$^8_KP8\<#:.3(?D8G><_Z*/_ _&W_Q#N?
V!/CG:..^<K2_#3/VG_MM?@^&7]H/Y>ZOH+3%N_0>]>];CPU^&'P_MX^#?@S00AO\
"7P%X*^%WPZ\+VKV7AKP_. #6B>#O!_A^UFN)KN>#1O#GA^_MPTW2=_CFNIY,F=;2TB\^ZGFN92TLLC-
)XC>+^6<:_V^/@O6_D=SQSU+_#)Z_G^*I[XQCT]=:_Q\$?%ZH/&'B_P"51_Q5GB<_MD(>[KVH#_R#T(Z>I8GYB2?);NQC
W9X&"3U8\$< \<#>_JZ=B17YGS_ \I&K_M(575S)=W/_3_ /V6KBZNIH[BYN]?A1X>DEGN;F5[BXFFD.W9I99I7>1Y
M&+EY#(YDR<VOF/'KQ_P'A_B.O&/PM_M)<=>OB7\./\$Fi>#/_B/V?%&A^O!_B[0YTM=6_^*_#_H1:IH6L6\$P4JD]CJ
M4%M_3X=^(MOID,Z^)(L3MNX?_WQ%A@N/\$O@^64/'9\$ZOX1>_U+
M5/'NJW+];_PYD_X)19P/^"?/[*V2,X_X5+X>SC(&?^/7H,]^<9]#7OG[/?[_!_MO[&W])GB37_%_P"S3^S5\
(O@3XA\3:+'H/B;6OAKX2L2"EUKNBQWJ;C;Z9JW_M]GK!#?6UM?1)=6IN!;+64S"W,_FE\SV?
\$SQ\$X4X_RVC"CD6=8'/,%4BL%FE>_MKE%2'U6;BL1@_73HTW6Q&'K1C%T??2PM6_JE.+ =6;6F89AA?&/_OG3J0ORS
M35VM':35FTFE;736RWOYO\2OV?ACXQ_ _Y_9S_X**>_Q:>%OCA_!P?_1OA_M9XJN(+21X_BG+_ _%_@CQ-
_!A[3]1..5+>W\2>_O%VK6E]HFMS0RM<^&=3\OZ_M%J+7*V_AHZ3]&?M/^&M>\8_LT?
M"^\$?"VE7.M^)_%/P,_* _AWP]HMD(A>ZQK_MVM>!=TW2M+M%N98H1#4;*_X8\$B_M""[MY9@\$Y<^5*'TN%!RYV<#)
(2L'QWXTT'X<>]_&'Q#\574UGX7!>)%?%C_M'Q)=VUI<7]S:Z!X9TFZUO5[BWL;2.6[O]X=/_LIY8;_VBDN+AU6&_ 'I756_ 'E
MH\96Q&6SG4GB:N_E@J&_H554<8TL/C:6)P^<4FW.5%8B* _LK2QB?6(5U2^ATR^TV_M;4(+)_H=5CFM5\XPfV6./G?_
1B_8K_&FOV2M=_P""@?_P2U_:=^?<?C7Q_MM^<P5XNO/B%K'P^&_M2Z1>_#KQIX&?V5KX""<_#F]>VUO>(_/4/B#V]?T7
M6[G3X]+M=\$M/\$WAWXG2&Y_L]1U>P?6OHO3O\ _@YI_X),ZM:K>:7\3?C7J=FS;
M8[K3_P!F3XXWULTJ@,R_+3P9;K)\$"ADC,@91(F5W9"^ZG_P_%V_ _@G7H
MO[+_UA^V'JWC[XF:9#=#4^/UQ^S1::WJ/PA_BC8Z_)6+3X=R_ %*72QX/NO#_MD'B0Z0WA"&:_C\2+IS-
)>PRZ:MW]MC:&OT/9,,TP4H8_M:IA<3&&!!SS!8B./RZ>2J6]J5\+C;="G4I1H\L* <\^*5.K""4:77*>+E*!3E
M&4I8ATN525VIQ<9IP3E)1DG%6_LO>LM_#B/V/\$_ " _P#P4>_X(1R?&W]DW5_V_M%_C'_P_%/V3_ \$'Q/U#XD_/_XU?
LQWWAS4/%FG2:UI5H>I:9XY^<^K79OM*_MDU>UTKPW_JLH^_ %UC3+C3O7OV0_V_OV]/VO_P#@ICXR
M_P""O[:/PXT?J]D/5O/_PSU_X8_L9_L]>(<2L_B#XF\,37/@_P_1^%?"OBWX_MI)X=U#34O/#WA^/QOXQ\0:QHLFI:XA\4^,?
\$UT+2R\(^='#TZ'5/KAO^#_DC_M_@ET(S(/%W[0Q4#?Q^QR=^T%EOER=I^@0*Q(QT)5MP._!>?2G[6?_6;_83_M
&*OC)H'P#^_.WC+XDV/Q14?#SP_4^=#>^"O@Q\2_B'+?>\$/]\$WXAL=)O(9_M!WA_5T_U)-
X6UMK3C3B\LH+7SKF_.*1;]JQF_XUJXK,90X(GA>)*A3G5P];MRXBF\360W6Q
M52K5DJ2C6K4I*4XJ,IL;QZ;8W7PW\>7FLZOH_MMK: !KDIKWB_JLM3O+&_CL]9\;3=Z9>7_ \&G[_P#P30_ _YTS]LO\;'_X
M*1_!K]FCX_. \S+OQA(O\$ _@W]D_JE;XCW3^/_#%]XP\0Q>"/.O0B9X: ^_.K_MZ,O@_P_&ZM+X_U/6M8L-
,_LA]%;^,+_ZT'PI>Z7XH:A>0Z?;I_XK\5^_MK'PQH5F+NXB@NM8\2_MHVB63_!VI6XYKZ1_? \^"K/[&7_3Q\3_#_PA^
MTUXS\9;:X@^_.CZ[KG@*Q]&_#_+QO\1WUG3_#M]I.FZD2?I6CZQJFN#=_ZWIT=_MK;S;);L2EH0Z+DX1_Q_ %6!6_R?
+>!/f)Q_ %&I4*U*GA]Q.%S#;!X2I3JY@LO_MR7_XRIDL8R^IU(XRIAYUZ^7TY5U2EA)UE541JUZ=X1H>S^L4TG%-
^SG&*NW" _M% ^1\W)>6D;))NR343\HH_VY?V^<4^&%O\A_@HI_P07^*_ [37Q>T^'5=&O\MQA_ "30O@_ \ \$[X?
\$5GNKR+3M6C_M^7Q_ \.+6ZLYTL[R!]3\2O\JF.N)+: _MIJ?Jc:: _P"#>C_@F3^T5^QGXF;_ " :2^/GP\T;JF6U_ _DU[0T^/I(?
AGQ8_M?&_M*?!OAKQ1XZ\1Z6WB?6H=0U>TN+S2K?QC%X^L5JRK>:K9+:;_U>ZR+* _M77+32M_ ^Q?AA_P_%_P#_ _()Q_>

#WX2^"0%'QWG\8_\$[QGX8!\^\$X_5_9MA^FA:7/XB\7:U9Z#HL6HZSJ0@JTTS2;:J0OHEO-3U"Y@L+&:9KJ[N88(GN"G ")>(!GBS1?#VJ^*K;P MJ9>*E\+:XXO=)C\):AK-JH=^EUI-DFK+JJEQ^+IEB9J5:"RGSQ^+XHI9;GN M28/@N>04,WP\,TSBEAWG>*A2RW+,PA7JU,%@L=F&.P&582GBJ].G7Q:M1MC*GAH5*5'GL*>(-.I2C0E"#2J2BJDHIQ@G[_"N34\$DUS:=;M;)'Z5IT_3_ZMWT&:=7R+^TY^W!\^SU^QJ]KGP\$.?/Q+K6@:K^TO\5J.^"WPEAT?PGK_B9-\ M?ZM-8VJ]AINI3:%97L6A6^"]\0^OB3XYN+^")I83-8O5=R;=99?#X M>K5EC70J2IUJT8J4JBHS3A6E1&FU)SG!)M(==+M[S5\$TDZ=9W-MU%Q7[00-7C P""=/_/QZ^(O\7Q3\=?%2+XN-"J]TVP\:\^'"7P%+^'CF MVTZ;5?#^B>)+1X-5*>%M5T^_MCIGB+26ENK2:6&-"YN1:RNLRLH[5POQ(A94 MR[_^P2AS*=XI^QJW/_ M)\!:U2;RU\:_XH_#C21X7T#6_"_A_4IHM=:\^&M%TJ>_CU+Q?HB0Z71*;5_0]K4\MKHVM74#^7/;Z;J4\+A5)2_M6*TNCG?#_AMK,%8%?_@JBV.G_#0'CW/X:#XI'Z_Q]:_H<_M28'A_7_NC&C:N3GCK;78&3P.<8&3G(%?LWC/KCN_E:Z?AUPM_ZCX9/J3+\ M#A<^/_#A1N)/3WL5BG^MCX&3XX?%\$HA/BF3)5>?I.TKDD#_IRQD_2G_M"[_BA_T_\$G_@NTO_.0ZADC=?+CY_@7L? [HJ]2O7(&>2<="3Z#/4^PY/0_G_M_K|M5*G9+E5TK/9W?R7;N?NAZ]:2&3XLWJY:V_EXBEN+R]N8+.TA73M+S/=7M\$D4,\$A_QY_QR2QC)R_"Q..2?O+0K34[_#2;"VU?49=6U2.UC&H:A*D\$?GW07_M?<,\$MXHHXX(Y"Z6_[LL5&9-Y967X(^!MA?_!0\B:)(f)=5U%4<'FM_,MG_LY4J\9VT\$R9_*O#R"5('Z(8&5'09_XZ@9&,<>P7T"\$J.PKCQ+2E&\$5&*2M5W9:Z>5NV^OO/Y>,%?KXL6_P_M(K'3X8_0\3ZA_UQ9VMP&>UL+?_5J]&H!%M)\$[HT\NVM5DBEN'\$DF^(R'^(C/'Q\1XKF>;7JZ?MBCJ/((O[4JX]_#_GQM4A_P/AOXE1&"R@G;G_M@LHJ]QU^AGP"Y^)^D_P#8_USJ/_U:]BTJ[]J6T6ZMFN(XGA\$)?S%R4X4_MLRP=6HU&G2Q."JU+T[*G1Q>#JU6U'W[*G2J_J^OM)\CON)\I2:C4I2=K1J4Y.M^JM&I!NZJ]T7==KC\2'_Y_M0_!%&A#_P3YC)\?LK?\\$SK?_X^&0^?MQ)U;_A:T_P"TW\+?A(8_\$\$\$J]8^\$SK'A8^\$_&%M+JP71EALY5U99#:WXO<6Z1O_M:R1M]@_\'46N^,?\$?_!,/JASQ3XY\!Q?#GXBZ_\M@_!SQ!XQ^&Z;[INOC P9_MXTOOV;_CO?Z[X*/BG2PFF:U_86MO_H;Z]9!+6_6S6^@6*D5?VH_X(?\$[-M<_X)>_LA#J]F'Q#15M+^,6H)4/&_Q\$/C'1_"WX+L8X/%4&A6T6DC1[!70\$<MXGLAHYFDNFOTCF^U*L<""G!YA_X++?\\$R/\$7_!5]GOX6?+!PM\9(^"&H_M_#3X^Z%:\U4:QX*N_'=GJ\$>B?#GXD^"(M#AT>U\1>&_L\TMWX[MM1%]/=W-MNL&EW%L]A;_M9(TV2%V05?%.ACM/'8#"Y30XCQ6,JYQ2>>3ECL+/_SITZV*_MHU:U24:=.K4C4K/#8>G-SG42Y8N,%W_6:~BE\+?!_P;O^"4W@#X-!C6[_TL/_/Q;TW]M3X_M7_\$\$4/_AL:3*)9/(>OQQ_X*3_M1)^*CPD_P"#GO\9&^(P2^!6M?M;?\$W0?V;,>/@IX?_0A[P_JOB]3_MTCJ]K#2M8EM?%/BQ#H.DMX?T_U+Q+*UYN6Z@T9[6W_OIH^?_3YOV\$O\@OC_M;K;_P#1<P#;+;B&W9?^=/_L_WEV*J];_#J]L,R^7"1F+S#LF^1%0!P5^@_M/_O-2W\6^_P#@KW^SI_P5#NOC?HT6F?!\X' *>U,X3OX\O&UCCAJDGC MXSZ)=>];Q9;^(:33M&MIKOX]JP7JZ0?#=#^\$32IT2[C%U"D'_E&8Y#D.<9GF.M*Q"IE7"8_A'BO+(Y=D,^*WAL1C\3@:5/X?'SS"GA<92ECZKC[*>%Q_2DO8RM4N6CR2P^)BN1U%'SDI]+JY\W_*^R?KW;N?SP?%4OVCOVO_M?^"M'QC_&=O^"//C?A_8_"L1?&;QWXL;XTZ9XS_#^+^AOQUK&G>\$];_M.^TF00A]JW@S1DL;<:AHND^,#K6F:)>:UXD\31>=&[WPA'I^E3O=:A9^I_\M!;+P[0OV?/V_P#_(_^"?P@.\O\?/BA\%=*TWPI_"_B7Q79^")OC#XM\ M>+?@OH.G:~?K/C'5!>Z9X:E\7WFF1RZEK5^ES:V7VN:2?I0H5'<'@JW_P2_MAU/_(*#^(_V2_C1\(_C1IG[_O\2O\((?Q:T_XB?#WXIZKX&/Q\$TZXTFQU'3_M!:=:.'^?^!77_#DL]JUI?Q"\+^#O\$>B7)_N=,NFU^.;3/_P#@MH_P2;_@/W[=WQW_8M_5^\$7[5W@_JFSXQ?L?Z?JVI:)KTWP6/Q0T^X^ (6IZ_MX\A_\$ECXGT30?\$/BN+1X-TC5_#4AM=%\4:=XEBN(+F\$74:>=%C_M3G@70QD9>UJUZ6*BJ>)(H\&:Y*%<3JQJ0DYNGSRIU(\VW.E/FBO==U)7459WM^F/V0_VC?^F7Q3^+TOA;JK_@G#X*_98^XZ\$>U>#XJ!:\^U9_.C3>R>;_M&^T)_#?A(\X7TFTU2*#6;&JUN]FUOS1.V.NB>0PO>?VO/V/_B_^R1\;V8[_0=8.B76M@(\U!)?\$40M\$?@:TOQY?JD^)\\$K>"/"M_X\!I=:\U.QT* \03/_17\/_V+ _M_P#@M_X;^(_P\0_\$?X+0^"OB_.="=^\$M;^('@"+J@G]GOPQ<^//FD>_M;("^\7^"XO\$^E:3%JGAVY\4:!!J.A)KFFO%J&C27WJ]H6+Q75K&Z_3?[]7_!/_MS6?V9/VW_P#@HW^UYJ'Q.TSQCI7[=7B'X):YH_@:S'W>BW_,_1\)_#\8Z3_M_X6!J]DV?M8?+_@I7+/_AY^TIX'GMDT6^GUV*];.6.D?S\$3=G=)K'0_'M.ND:@FI6;./"_C/3_\$GAR.*""VT9J]1^S_@@K?'7_@[_>_:(E:_ (TJTGO_P!G_M_P""NOG]G/0/\$%G]KLM.7PGX1^Z>!\3\;V6L&\CAN[CPU\1OB7\3=/N=.6%_MH/\$_J7B"PCM9@CQ<_[6W_!O\X&^7_4@^%W_4(^"OQ;T3X&W>G?%/X_M??&'XS_"ZX\7GB33_BA00WC/2_\$\$^H^+/_#VK6GBG0X_">K^.=,TN&#Q;&F MDZC:7WB.\$^+94N_0U/5EO/I'_@HG_P_\$=KW]J]H'X5?MU?LI?M':[_^QC^W!_M)]2PT2W^+>D>%K?QXS7<^&=(&HKI&E>_!/%WJFFV.H7]E;_:I>:%=WMR_2T_MWQ-X.N9/!OG#1\$&CV6AQ:/J//BG@IT<@:_JQ;*)F_"%F63G6PU6M3X1S_M;B-<[FSP2G2HN04R]=2AC.NEB\J]>GE^)HS<9Ri5J.]YXG!I4Z=.3C[3_U_MZ>+=)OK[QQ8Z7K7AS3_M=7TWPYIDD-U82.EKRP\$6WB/4X;O^,OP\4/VK?A1_P_*_P4P1_L@?LN: M!^UC\2+SX7ZH>L>_/\$7QC_*TT7PC+X+_&*_\$]EJ_C?7%M] MEMI6EIH21)<30ZM]H\$ L(MYDK];_W_!&#J]HGX?M4_!#J]_(*H_MP0?MCZMC^S#J\$/B'X!\7P!\M\$^"_PD\+>;,4M%UV/Q_KUCHUVLGB(OKWAS0M=U>P_M;2[6X\2WN@:#17B+6+ 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(=0+!+8Z#X6\+Z7>:WK^LW_MIC263[_IVE6_W?3".*23R(254NRI7A'PQ^"2B;P5XQLO\$J:EHDUG_VU_8;M&6\DCD:]MGMHF5)K6_.1H[!Y_S%L8QG!!L_X*A_#;QQ\8_^^^,NC>&=+T2!;C5?>\$>IS>="3G7PA9P\$IYLWC2""3PI\H\$9K+LBL_MY6.BA3HXS;\#AZE94:.(QF"P]6M*T8T:5?%X:A5K2E/8W8J3KSFY2:A%PYI^ MY"94\$S3A^U^<:(V5DW><59/HWS63Z_KL?CS\\$_@K1_P51_X*(Q_\$;XN?&M!_3]A3JG?LL^!_'&N>!O"GQ\$_.Q^&*WBCO&/QJOM!D6XGOO"/A[P\X;M?#_M;CZ7=Z3_&C97[^(=%T/5KZ71F\8ZGJNE.YIVD?H3_P2H_X^H:)_P4?+_&3MPSXH^\$FK?LZ_M0_LR^_3V?VA_@'KNOQ^)KCPK\$EYJ^FV&O:K(TS1KN^T3_M4]2\.^ (J.N+2_P)M;_1>T;4=+DN=7TU=;_2:S'?_!KS\>/A\X\X)7>%MOAUHGCG/PU;>_@1XT^+^+GA>ZU"TT[6O""IXA\8ZSXUT3Q_K5A=W\$,EOXV@)\O\915^'GA?P\+OVA/CUX\O\$?A+X21>&_&'AG7(?%OO_TYO%)ME#KFK2:A#H6IR^\$J+7_&O6L=4MM07[_#_)%;_:(^,HX&=%Y/FV6Y7E&<MTJF9QQ5!8O'8/_X>IGE?&XG\$X'*>4ZOM:"PN'PCA67UG"3J8/#5:D>VK2O_M7Q%&GAVHTTIXTZIY/E4KI249MOES)MM6E: ^6IN9_2I2W_!R1XY^!GL;WCW_MX=Z!^SGX\6_L%?!KJ]3X;2LJ_%3J]>(O\$#:U#XWUS1KW5?BC_PC%ONLO"!MSJ7@0Z)XWF32(4U6RFTIP7;WNM:_I0\=^&EM_P!U?^"G\!7?B?_89_82^_G_M!7'@PMX9?>(_A/H_@O4]\$,\^*;K4K+PYK:~*BECX\2>W6CR1:E\$ L&G>_M)9

```

0M3:21E1BTMXYG$QOIPPTH0J250Z(X2E)T'3IJ$*->AAJT544G4E*W+42C*5DVY7 MY&HZ6:=C]*?@%^-WO P %X VE/@1\
/VCOA/^P5^POX@/^G06$:.?0/!=K>? MM%^+ #GBC5M"U.W.U86:V6L/!%:.9J\JBWC34:N*PMIAU.U=OP*SUZ/^R5_P
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IT:*S!8:=H AS4EM+OQ)\+O%W!O+I*:8UUX=-I.O:ZOKMKJ5C?R?EM^MSW^SQ_P5S)\$6?AE^TE^RO_P
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M2^)^5^+GP\?'$HOZ#"_UG:VOM?#TT'CI\2:+=O)J?BK7L:X@?VOXEUBYNIK M>RTSDQ7#_""FU9X3).3\#C3)N&\
N"J$=-KEOUC/*%&X7/Y9KB!8>6^Q M&5!OQ^PM2C0E!J5=X.O3C"$6"/X?EJV=*JXXF%"G&C.);@?
%:TT;61:Z!L%GXHGN5OGGT+6!:=TR;2'+0P^!O!Q=&9! M*NUL>: X*! \!/Q8_8) :2^('P_9R^!PO^_.E? ?X= _#/7?
V@/%OCS7/& M&EGP/X^+^+UV\UX(\VT6@R:2;W%Y=>$K0_ $C@37DDT&MR;)H)\U+WK!3O$ M_@IQ9^S/_P $RA
@A?_,%B/A HIU?QC^R%XOU:X6_%73:42V8!3_?"QA M^KXJ^(\_#^E.UK=I:2W6GZ'=ZOI^C?X:S7.K75O:ZC\7!4VIC-
=!!!=8!f8/P MS\8Z_P#\$_' C3_P4/^%$_L_OK_X*6?!\!P?>_0N&MPFIZA(M_G^+OA3X_M/^$_FX:"AHNFVT?B^Q#X3L!YO
/MO^OB;0S&T%Y)?6MO\1PX)X.EQ/ALO_M_LVC^AS&9U4X+IY%:%8Y^AO^0SS_ NO$Z=6&)>_JGA\BP6&SO!MM24K*E!?:
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%K:K:@!5E<?7AZEY36+6"!FCT^6>T5:PM:A?OM^S5^R5^T!%_C9 MX0^')Q= _X+_._%#HKP#X>_MQ=<^"7C7X>?
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4<+B_IQJP_PJT_+35*53&P!4DXNM5YXJ55!2C2C0H2 MA32E.KC(SEH=H3:ARJDE>Z2ZR?O.ZBT_P_8%?A
M_^(M%&@MX>_9LM8:64_LS^8O3?XOAKP MA_P=X?%C6O%?B^O_""C0?LPZ5#_
J_B+5M/T33(HOV.OAG^V!W^I7%M;+!+_MRXC1I! (^VJ0K$?U$>(/"O!/^2OBOPC?^+!/'!^Q^<_#>/5=4"!7GB+1O
MA!4_%G@:_4:S1)=&(K!4=(\3:O=Z^!A'=7FEZ+)>2//9V_M+1_<2Y3@_LEPS5P^65YX7,>LES^&U_
'%5_.L!S/#8SFOE3$3UJ5_TZT: M%6>'5>C!G&G!4HOC^XBA"E!7DJ5XU_)0JS?+*455J4Y.4KN+2!Y)VYDEM9
M)GY=^/O^"SOBSP^R^QI^TKX&_9_U+XB>_!VP!^>B>^O@GI7Q!8ZAK.E_MZG^O"WO0!46FB>'!2^'_P"SY2=2\
<^('S?#_.)X=M8/A!X>T73_6!V<_MB+O%I6A:=J6M1_MOX%!\0ZAXL!$>#O%6K^&=7!%:KXG^*^'_ $&I>#O$^O+KWA
M/4_TFSU*\ZX("81K&@W%$)I6J>4?+!_3^62F#7D^@7IDC!E^X7.AHV!_M#7!F3!CGX=:_OX&M.MN!^U_4=$U_7='O\
6:"6#4.O2!_U?3KBY>UU&I!BE^AE^GIL(Z<@_#!>HSP_MCV
KYC_1EN(C3CE>63R^*Q&^JU^E3U!4T!T^V)JUL!0E&K.5_!3"U*._&!MI"$)5!476!7G_M\LY4^6$84E#E_CXOU?
QI_9_!L^%V!^?VKK5GJ^E=P? M8HO!L_L285BU!9H4.N_:U>*#?>2(COR?9MO!S:7_D!RK%=6!Q:.8RBNB7_M312_'F
DWA69E9T;K$^?5_9?!\:@_!WXP_R,VV@DX^)\.$GIG)))!^M+_PS!X$ _P"@WXO_!#=_P#F.HHKA!M5_P"?
DM//_@'K!_PS!X$ _Z#?C'_P_MT#_YFZ#^S!X#((.M>_""'_&IT#OZ?4YUHHH!K4?VY??_P_#OO#OPP'A%:_M71_'GCY+
=NRRO+_/_ZE:1_'V""4/#5RMLAP,QVWE(.9502Q/I$=N8U56N_M)YBJA=!\@MPQP0=Q$,$2;B>>$&3M"45FW=W>
IU8$OE#^!WY@_S&!CVQ1Y8_MO_W_+O&?3Y74Y^M%%'XZ?'S_@@)P2:_4^)_B+XP_$_!90T<^/?&&KW>
MO^+M!$^/OB?^=_!3Z!J_PUYJ6MZSX^!^_#OARXU;5_Z274_7U%_*BN!8_MU":^U2:[NYD]FIT5?
\$/^">OC#^!G^X=_LD:E^SAX;L/V=OA=!\2K+XP>%/MAEX9U_QGX2TM_B58Z?K6EP^+_$^J>&_$>E^(?
&^K26/B#5(+R3OQD&N!Z@LE_MK!NCN#IFF?8RB09J!19_7CA(5LZS6K#>R^!J!8_%36%IA"=^*@Z^-5:@Z_-I
M4IT6FW2A.4*3IQDT!76K_13JS:@!Q3DVHNUKJ!^G>_WZGZ^+!0IL$8M8U"1
MI&$5$15**!J*%PJH!4!@^*$50+@:_@WYE_9_P_$?_!@G1HGA3!J/P^HGI/Z):X_M( _!U72!:_)(^!1B?I/AKOM?Z^X!O_B3H;V&B:2
XRM!A%0:))XKU2_N_M&M/MOX_.U"R!&^"/#+_EJFMKH_AS3E9+/3VU/7KS4!6_MU_1*!9!3OKRXE!Q_+(*^52
@Y_P2U_8;^_P^!VE?A3(O@N!CPX_!YM!M2M?CQX_LO'/Q#N!^50:O8>)=*U&/2K#4O%5!%X*%UI?BO5M_D/@D>'V-
@FE_MVN?)T725LRBG#_..?3>)=/&XJG!NE_*K5IXEO$0_MJ33E"M^BU+4(U*D6W&!&2E&6VZDDTU;5+T.OM?^">?
!(EI^QO_M^P$GPGAF_9/F!7?A5_A;=^*/&%ZJZ/>?)!2&+!%XKNM>E!9P7D^B:4ZO8ZG_M#X@CU&PO(X9+*Y@AF_*
IX^!\$!Pv1/VG/V^F&_M_#O3?7BOPC8:"OPT2X!^#X_/4O"&MZ^K!M!T>ZGLX!>24!89U??=)/*J
MN"BJ69YC&I&M"XM588VIF4*BO%53AF%:_LZN_C+GNL55I^Y4KJU2:3=WYO0Y#!IS_@EU^P!^V_V_@O\+OVBO@Q_P
+_M^!_L!Z9)HWPDT_^.OB)X<7PMILFAZ%X:>U^W>%/!%>B.EK"G1O#>C69?6!S4_M9^+0S.YN)
!B67XOM/^#;+_@C)8WE!7VG!^UO!>6_W;7UK.OQB^!.M%=6<!\=S_M;R!9/B6\^7$C;4="!NK*6!]*!<_
Q+O+Q@V""83/VPV9*!A^O!&H8_$T$M$9XISEB9!10J^E!B)5K^C13J.TDX7ORMW2;=!JZ;3OKHUK MKOJ>^?M/?$4/^":?
!9!QE\2_M?M&?LZ!)0OBOXP!M_L$7B9_B7!6?#JZC_M!^%M"L?#>@AM^!^*_.$T2WDL_%TVRLA):Z=
!RL"R7AN)BTAZ^!D?_@CS_P3_MP_86^*MW\;_V6_@!%!\_?B7?^$=6^"W?B./X@?WQ0TWA?6!0TG4!2TS^SO&7
MC^Q!I<0GO_$TR3!5#91WB"V"+_!E5=)4:4925.FHJ_4VDM1NM5<>1U)N%K2:1^F_M^EC.=S?^._!^_U^E
!2Q_[Y_P#B:**5)15H!)+9)!+!D9!Y8_O_X!_P#$&T444P/_9_end GRAPHIC 12_ex10_32_001.jpg begin 644_ex10-
32_001.jpg_M_IC_X02D9)1@!_!0$8!@_#_VP!#_@&!@<&!0@!P<)"0@*#!0_#_L+_M#!D2$P4!1H?AT:"!P@)"XG("
(L(OP<*#7J!#A(6&AXB)BI*3E)66EYB9F!^CI*6FIZBIJK*SM+6VM!BYNL+_#Q_7&_MO^C)RM+3U_76U!C9VN^BX^3EYN?
HZ>KQ!O/T!2;W^/GZ_!0_P$P$!0$!_M0$!0$"_P0%!\@<("0H+_!0_M1$@ $"!0#!<%!0_0)W$"_M
Q$$!2$Q!A)!40=A<1_B.H$(%$*1H;"!2_S4O_58G+!^A8D_.$E!1<8&1HF_M)R@!^C4V_S@Y.D-
$149?2$E4U155E=865!C9&5F9VA!G_T=79W>^EZ@H.$
MA8:"B(F^DI_4E9:7F)F.HJ.D!:_GJ^FJLK.TM:_WN+FZPL/QO<:_R.G^TM/4_MU=:_7V_G.XN/DY>_GZ.CJ!O/T!2;W^/GZ_!H_#_!
(1_Q$/P#QRB@_HH_MHH_****_"BBB@_HHHH_****_"BBB@_HHHH_****_"BBB@_HHHH_****_"BBB_M@_HHHH_****
"BBB@_HHHH_****_"BBB@_HHHH_****_"BBB@_HHHH_*M6NG_M7%Y&SPA2%_#EL55KH?#_/_OYR_!
73^E8UYN$.9^K9/@Z>_Q:HU_V:&gt
```

XUT6/2/FJZ391XC2YVP1CLP57_Ql%>N_M(\4KJH_P"GX?^H KA?&CQO_!1Y<"=1MBV?3"4>OZ%HND?#+P5+<2J%
M:"SKZX58+S78:AT,I+8S2".3B?<|>3@,POC'KCI77? M%R*27X::P(P25V.V/H<9KY<52[*]C+,0!W)H |K^
">%=4L\$U"SU33VUN! M@C)#*&.:>.\\$"4CKSVS7:?"S7AXD^!JEPWF36H_G<_G.0!P3]5(KYVU+PAX
MBT:Y=0T.JMHD&6D:(I /4L.!7;_U_P#LIQ9 I\$KX@U*/Y 3QYJ5_0BOI;P!;P^!AG;FXPHLK,W\$ _O(1 MN(_XKF/&_@?
^V/BKX;OUBS:7' _V<&:71HGO+J\$ MN^0_P#+).?U;'Y4>!WMY_J_<7MRQ:>XD:60GNS')J"BBD,****"BBB@_MH
****"BBB@_KH_8"TER0/WG<^U<_1656G[2/*>AEN_^I8A5U&_IDU:: M'YXQC?8I\G3PV(K5^2_M.E
MIM6^WF%:VBWWDR?9I#^<_*3VA_|>LFBMJD%./*SR'BZF\$KOK4IU^*ZKYG_M2:Q:++O4>E9NF10R0N9\$1B&XW?
2LVBE0@Z2LW^M|^>R.I*:#%K_ (^LM.:8EKY@EG)(\$:C) /I^>Z_%7Q)%HO@*^6UN(_MM_
YBUB\$;@E0WWCQZ*#^=?.) /6D_Z_5K<|VP\22_8\R3_OHUT?@3Q')X<|9_MZ=J\$DK_9_,J<%B1Y;\N#^%V\1^!;V**.:!
|JU_TJWQ(N25_MZ@<|US^E>8?"+XAVGAMI=%UB7RM/N\^R<|9#P0WHIXY[&O+_J^@KU_X1Z!
MX0\4:/=::J^G03ZK!*9%+.RN\1_P1@C.#FF(I\$^0>%?_?B:5=9U_2S9@HW7,
M5X(PZCIN(/_7_!FNZ%JMO>6/AR%4TW3'6!C7".2,DJ.N/<|A\2?_=;G4_M_\WE0:6C*;>YW_4;N0W.0?2NY\^<\$;?X>^&
|F.ZOTE9W_OF!XO\3K^?3/B_=W|J^VXMG@EC/^T%4UI%IVO>%_BCX7>QN9(ITRC[19O(_M%EB<=U|
<'H17SSXRUM/\$7C'5_5BSY,\Q\K/P_*I_(9K#!(8,"0PZ\$!%*X' MTOX<^&'AKP3J3ZU)?23/&C"_|UT5(@1@GL"<<9>5_-%?
Q9H_B#5H;/0f:W%K_M:\$F2[CB53.Y]!"DJ/U>?R333_"6:60#H'C_9P/X!ZUYI5'#?\$W67C<'|Y&593G_)9KTKC2>HI<8Z4?
2_@_X@:/XR_MT)_U66!_2\KR;FVG("W_Q@LN>H(ZCJ*?8?"+PAI.L1ZLDT_&'XAV_WIC^&M'NEN6E<&FB;
M**H.0@/_829%PO!_<9XZT#/H'2]0@UC2f/4K8@Q742RI!AG'I*^9?BGK_\M;_CV^>_JUM9_Z)#@_87fO_%LUfUXIUBP\
>|'&V+R(LUC"3RfXPN/7'4FO_ME(EF)9B68G))|GN:&)|1112&%%%%_!1110_4444_%%%%_!1110_4444_%%%%_M!1110
4444_%%%%_!1110_5)!/:SI/;RR0S(%<_F1FLO6/%>OZ^@35=7N|J./EN^\$S_+HP*QZ*"BBB@_H_MHHH_****"BBB@
HHHH_*Z#2?'/B?0K!;'3_9CMK53_8#3/G:/8=|^%4:**"BBB@_HHHH_****"BBB@_HHHH_M_****"BBB@_HHHH_****
"BBB@_HHHH_****"BBB@_HHHH_****"BBB@_FHHHH_****"BBB@_HHHH_****"BBB@_HHHH_****"BBB@_#_ID!_end