

Up to \$17,054,687 Common Stock

We have entered into an equity distribution agreement, dated September 11, 2019, or the Equity Distribution Agreement, with Piper Jaffray & Co., or Piper Jaffray, relating to shares of our common stock offered by this prospectus. In accordance with the terms of the Equity Distribution Agreement, we may offer and sell shares of our common stock, from time to time, having an aggregate offering price of up to \$17,054,687 through Piper Jaffray as our sales agent.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "AQST." The last reported sale price of our common stock on the Nasdaq Global Select Market on September 16, 2019 was \$3.54 per share.

On September 6, 2019, there were an aggregate of 25,042,601 shares of our common stock issued and outstanding, of which shares 12,448,677 were held by non-affiliates. Accordingly, the aggregate market value of our common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$51,164,062, which was calculated based on a price of \$4.11 per share, the closing price of our common stock on July 19, 2019. As of the date hereof, we have not offered or sold any shares of our common stock pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date hereof. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock registered on the registration statement of which this prospectus forms a part in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million, as measured in accordance with General Instruction I.B.6 of Form S-3.

Sales of our common stock, if any, under this prospectus may be made in sales deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, or the Securities Act. Piper Jaffray is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices on mutually agreed terms between Piper Jaffray and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to Piper Jaffray for sales of common stock sold pursuant to the Equity Distribution Agreement will be an amount equal to 3.0% of the gross sales price per share of common stock sold under the Equity Distribution Agreement. In connection with the sale of the common stock on our behalf, Piper Jaffray will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Piper Jaffray will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Piper Jaffray with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Investing in our common stock involves a high degree of risk. You should read this prospectus and the documents incorporated by reference herein before you make your investment decision. See "Risk Factors" beginning on page 5 of this prospectus and in the documents incorporated by reference herein, including our annual report on Form 10-K and our quarterly reports on Form 10-Q, to read about risks that you should consider before purchasing shares of our common stock.

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

Piper Jaffray

The date of this prospectus is September 17, 2019.

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ABOUT THIS PROSPECTUS

This prospectus relates to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus, together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus, and any free writing prospectus or prospectus supplement that we have authorized for use in connection with this offering. These documents contain important information that you should consider when making your investment decision.

This prospectus describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. 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 into this prospectus that was 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 one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference into this prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We have not authorized anyone to provide you with information in addition to or different from that contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We take no responsibility for, and can provide no assurances as to the reliability of, any information not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information".

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SUMMARY

This summary highlights information contained in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the Securities and Exchange Commission (the "SEC"). As it is only a summary, it does not contain all of the information that you should consider before purchasing our securities and it is qualified in its entirety by, and should be read in conjunction with, any applicable prospectus supplement and the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, any applicable prospectus supplement, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including the "Risk Factors" and our financial statements and the related notes contained in and incorporated by reference into this prospectus, before purchasing our securities.

Unless the context indicates otherwise, references in this prospectus to "Aquestive," "company," "we," "us" and "our" refer to Aquestive Therapeutics, Inc. and its consolidated subsidiaries.

Company Overview

We are a specialty pharmaceutical company focused on developing and commercializing differentiated products with our proprietary PharmFilm® technology to solve patients' therapeutic problems and to meet patients' unmet medical needs. We have three commercial products on the market, including one that is proprietary and two that are out-licensed, as well as a late-stage proprietary product pipeline focused on the treatment of central nervous system (CNS) diseases. We believe that the characteristics of these patient populations and shortcomings of available treatments create opportunities for the development and commercialization of meaningfully differentiated medicines. Sympazan®, an oral soluble film formulation of clobazam used as an adjunctive therapy for seizures associated with a rare, intractable form of epilepsy known as Lennox-Gastaut Syndrome, LGS, was approved by the Food and Drug Administration (FDA) on November 1, 2018. The Company commercially launched Sympazan in December 2018.

Our most advanced proprietary investigational product candidates include:

- Libervant[™], a buccal soluble film formulation of diazepam used as a rescue therapy for breakthrough epileptic seizures and an adjunctive therapy for use in recurrent convulsive seizures, for which a pre-new drug application (NDA) meeting was held in December 2018 with the FDA. The meeting resulted in a plan to complete a small single-dose crossover study comparing Libervant to the reference listed drug, Diastat®. This study was initiated in the first quarter of 2019, and enrollment into the study was completed in May 2019. The Company also began a rolling NDA submission process during the second quarter of 2019. The Company has completed the crossover study and is evaluating the data generated and plans to complete the NDA filing by the end of the year; and
- Exservan[™], an oral soluble film formulation of riluzole for the treatment of Amyotrophic Lateral Sclerosis, or ALS, for which we submitted an NDA in the first quarter of 2019; the Prescription Drug User Fee Act (PDUFA) goal date for FDA action is November 30, 2019.

We have also developed a proprietary pipeline of complex molecule-based products addressing market opportunities beyond CNS indications, which include:

- AQST-108, a sublingual soluble film formulation for the treatment of anaphylaxis and severe allergic reactions, which is intended to provide an adjunct and or alternative to injection treatments such as EpiPen. After the Company's first human proof of concept trials, a re-formulated and more advanced prototype has been developed, for which we completed additional phase 1 proof of concept trials. The Company is evaluating the data generated from these trials and plans on seeking a pre-IND meeting with the FDA before the end of the year; and
- AQST-305, a sublingual soluble film formulation of octreotide for the treatment of acromegaly and neuroendocrine tumors. As a result of early stage clinical proof of concept studies, re-formulation work is currently underway.

In addition to these product candidates, we have a portfolio of commercialized and development-stage licensed products. Our largest commercialized licensed product to date is Suboxone, a sublingual film formulation of buprenorphine and naloxone, for the treatment of opioid dependence. We have a sole and exclusive worldwide manufacturing agreement with Indivior to deliver both the branded Suboxone, globally through Indivior, and the authorized generic sublingual film formulation of buprenorphine and naloxone, through Sandoz for the United States market. As of September 2019, these products account for approximately 75% of the oral film products prescribed in the U.S. for recovery from opioid addiction – a market that continues to grow.

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We manufacture all of our licensed and proprietary products at our FDA- and DEA-inspected facilities. There is no guarantee that proprietary or licensed products will necessarily be manufactured by the Company. We have produced over 2 billion doses of Suboxone and other commercial non-pharmaceutical products for all customers since 2006. Our products are developed using our proprietary PharmFilm® technology and know-how.

Corporate Information

Aquestive Therapeutics, Inc. was formed effective on January 1, 2018 via the conversion of MonoSol Rx, LLC to a Delaware corporation and a simultaneous name change. Prior to that date, the business operated as MonoSol Rx, LLC, a Delaware limited liability company. The financial statement information presented or incorporated by reference herein from periods prior to January 1, 2018 are that of MonoSol Rx, LLC.

The Company conducts its production activities at facilities located in Portage, Indiana, and maintains its headquarters, sales and commercialization operations and its primary research laboratory in Warren, New Jersey. Our principal executive office is at 30 Technology Drive, Warren, New Jersey 07059. Our telephone number there is (908) 941-1900. The address of our website is www.aquestive.com. The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public offering; (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the last day of the fiscal year in which we are deemed to be a large accelerated filer under the rules of the SEC, which means the market value of our Common Stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th.

We are also a "smaller reporting company" as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies until the fiscal year following the determination that our voting and non-voting common stock held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues are more than \$100 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter.

THE OFFERING

Common stock offered by us

Shares of common stock having an aggregate offering price of up to \$17,054,687.

Common stock to be outstanding after this offering

Up to 29,860,309 shares (as more fully described in the notes following this table), assuming sales of 4,817,708 shares of our common stock in this offering at an offering price of \$3.54 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on September 16, 2019. The actual number of shares issued will vary depending on the sales price under this offering.

Plan of Distribution

"At-the-market offering" that may be made from time to time, if at all, through our sales agent, Piper Jaffray. See "Plan of Distribution" on page 10.

Use of Proceeds

We currently intend to use the net proceeds from this offering, if any, primarily for working capital, capital expenditures, research and development and general corporate purposes. See "Use of Proceeds" within this prospectus.

Risk Factors

Investing in our common stock involves significant risks. See "Risk Factors" beginning on page 5 of this prospectus, and under similar headings in other documents incorporated by reference into this prospectus, for a discussion of factors that you should read and consider before investing in our common stock.

Nasdaq listing symbol

AQST

The number of shares of our common stock that will be outstanding immediately after this offering as shown above is based on 25,042,601 shares outstanding as of September 6, 2019. The number of shares of common stock outstanding as of September 6, 2019, as used throughout this prospectus, unless otherwise indicated, excludes:

- 1,983,142 shares of common stock issuable upon exercise of outstanding options pursuant to our stock incentive plans at a weighted average option exercise price of \$11.26 per share as of June 30, 2019;
- 142,852 shares of common stock issuable upon vesting of restricted stock units outstanding under our stock incentive plans as of June 30, 2019;
 and
- 2,000,000 shares of common stock issuable upon exercise of outstanding warrants, at an exercise price of \$4.25 per share, as of July 15, 2019.

RISK FACTORS

Investing in our Common Stock involves a high degree of risk. You should carefully consider the risks and uncertainties described in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in the documents incorporated herein by reference, including our most recent Annual Report on Form 10-K for the year ended December 31, 2018 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019 and June 30, 2019, which are on file with the SEC and are incorporated by reference into this prospectus, and other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

Risks Related to this Offering

Resales of our common stock in the public market during this offering by our stockholders may cause the market price of our common stock to fall.

We may issue common stock from time to time in connection with this offering. This issuance from time to time of these new shares of our common stock, or our ability to issue these shares of common stock in this offering, could result in resales of our common stock by our current stockholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our common stock.

We are generally not restricted from issuing additional common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock. The market price of our common stock could decline as a result of sales of common stock or securities that are convertible into or exchangeable for, or that represent the right to receive, common stock after this offering or the perception that such sales could occur.

We have broad discretion in how we use the net proceeds of this offering, and we may not use these proceeds effectively or in ways with which you agree.

Our management will have broad discretion as to the application of the net proceeds, if any, of this offering and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase the market price of our common stock.

Purchasers will experience immediate dilution in the book value per share of the common stock purchased in the offering.

The expected offering price of our common stock will be substantially higher than the net tangible book value (deficit) per share of our outstanding common stock. As a result, based on our capitalization as of June 30, 2019, investors purchasing shares in this offering would incur immediate dilution of \$3.82 per share of common stock purchased, based on an assumed public offering price of our common stock of \$3.54 per share, the last reported sale price of the common stock on September 16, 2019. In addition to this offering, subject to market conditions and other factors, it is likely that we will pursue additional financings in the future, as we continue to build our business. In future years, we will likely need to raise significant additional capital to finance our operations and to fund clinical trials, regulatory submissions and the development, manufacture and marketing of other products under development and new product opportunities. Accordingly, we may conduct substantial future offerings of equity or debt securities. The exercise of outstanding options and warrants and future equity issuances, including future public offerings or future private placements of equity securities and any additional shares issued in connection with acquisitions, will result in dilution to investors. In addition, the market price of our common stock could fall as a result of resales of any of these shares of common stock due to an increased number of shares available for sale in the market.

The actual number of shares we will issue under the Equity Distribution Agreement with Piper Jaffray, at any one time or in total, is uncertain.

Subject to certain limitations in the Equity Distribution Agreement with Piper Jaffray and compliance with applicable law, we have the discretion to deliver placement notices to Piper Jaffray at any time throughout the term of the Equity Distribution Agreement. The number of shares that are sold by Piper Jaffray after delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and limits we set with Piper Jaffray.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. Words such as "believe," "anticipate," "plan," "expect," "estimate," "intend," "may," "will," or the negative of those terms, and similar expressions, are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements about our growth and future financial and operating results and financial position, regulatory approvals and pathways, clinical trial timing and plans, the achievement of clinical and commercial milestones, product orders and fulfillment, short-term and longer term liquidity and cash requirements, cash funding and cash burn, business strategies, market opportunities, financing, and other statements that are not historical facts.

These forward-looking statements are based on our current expectations and beliefs and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Such risks and uncertainties include, but are not limited to:

- risks associated with the Company's development work, including any delays or changes to the timing, cost and success of our product development activities and clinical trials;
- the risks of delays in FDA approval of our drug candidates or failure to receive approval;
- the risks inherent in commercializing a new product (including technology risks, financial risks, market risks and implementation risks and regulatory limitations);
- · the risk that a competitor obtains orphan drug exclusivity and blocks our product for the same indication for seven years;
- risk of development of our sales and marketing capabilities;
- risk of legal costs associated with and the outcome of our patent litigation challenging third party at risk generic sale of our proprietary products;
- risk of sufficient capital and cash resources, including access to available debt and equity financing and revenues from operations, to satisfy all
 of our short-term and longer term cash requirements and other cash needs, at the times and in the amounts needed;
- risk of availability of refinancing of existing debt facilities;
- risk of failure to satisfy all debt covenants and of any default under our senior secured notes;
- risk related to government claims against Indivior for which we license, manufacture and sell Suboxone and which accounts for the substantial
 part of our current operating revenues;
- risks related to the outsourcing of certain sales, marketing and other operational and staff functions to third parties;
- risk of the rate and degree of market acceptance of our products and product candidates;
- the success of any competing products, including generics;
- · risk of the size and growth of our product markets;
- risk of the effectiveness and safety of our products and product candidates;
- · risk of compliance with all FDA and other governmental and customer requirements for our manufacturing facilities;
- · risks associated with intellectual property rights and infringement claims relating to the Company's products;
- · risk of unexpected patent developments;
- the impact of existing and future legislation and regulatory provisions on product exclusivity;
- legislation or regulatory action affecting pharmaceutical product pricing, reimbursement or access;
- · claims and concerns that may arise regarding the safety or efficacy of the Company's products and product candidates;
- · risk of loss of significant customers;
- risks related to legal proceedings, including patent infringement, investigative and antitrust litigation matters;
- changes in governmental laws and regulations;
- · risk of product recalls and withdrawals; and
- uncertainties related to general economic, political, business, industry, regulatory and market conditions and other unusual items.

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You should also read carefully the factors described in the "Risk Factors" section contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus, and incorporated by reference herein from our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2019 and June 30, 2019, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements contained in or incorporated by reference into this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Any forward-looking statements that we make in or incorporate by reference into this prospectus speak only as of the date of such statement, and, except as required by applicable law, we undertake no obligation to update such statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.

For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

USE OF PROCEEDS

We intend to use the net proceeds, if any, from the sale of the common stock under this prospectus for working capital, capital expenditures, research and development and general corporate purposes. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We may also use a portion of the net proceeds to invest in or acquire businesses or technologies that we believe are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, our management will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in investment-grade, interest-bearing instruments.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the net tangible book value per share of our common stock upon consummation of this offering. Dilution results from the fact that the public offering price is substantially in excess of the book value per share attributable to the existing stockholders for the presently outstanding stock.

The net tangible book value (deficit) of our common stock as of June 30, 2019, was approximately \$(24.8) million, or approximately \$(0.99) per share. Net tangible book value (deficit) per share represents the amount of our total tangible assets, excluding goodwill and intangible assets, less total liabilities divided by the total number of shares of our common stock outstanding.

After giving effect to the sale of shares of our common stock in the aggregate amount of \$17,054,687 at an assumed offering price of \$3.54 per share, the last reported sale price of our common stock on September 16, 2019 on the Nasdaq Global Select Market, and after deducting estimated commissions and estimated offering expenses, our as adjusted net tangible book value as of June 30, 2019 would have been approximately \$(8.5) million or approximately \$(0.28) per share. This represents an immediate increase in net tangible book value of approximately \$0.71 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately \$3.82 per share to purchasers of our common stock in this offering, as illustrated by the following table:

Assumed offering price per share		\$ 3.54
Net tangible book value (deficit) per share as of June 30, 2019	\$ (0.99)	
Increase in net tangible book value per share attributable to new investors	\$ 0.71	
As adjusted net tangible book value per share after this offering	\$ (0.28)	
Net dilution per share to new investors participating in this offering		\$ 3.82

The table above assumes for illustrative purposes only an aggregate of 4,817,708 shares of our common stock are sold at a price of \$3.54 per share, the last reported sale price of our common stock on the Nasdaq Global Market on September 16, 2019, for aggregate gross proceeds of \$17,054,687. The shares, if any, sold in this offering will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$3.54 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$17,054,687 is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$(0.29) per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$4.83 per share, after deducting commissions and estimated aggregate offering price of \$3.54 per share shown in the table above, assuming all of our common stock in the aggregate amount of 17,054,687 is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$(0.27) per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$4.81 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only.

The calculations above are based upon 25,042,601 shares of common stock outstanding as of September 6, 2019 and exclude:

- 1,983,142 shares of common stock issuable upon exercise of outstanding options pursuant to our stock incentive plans at a weighted average option exercise price of \$11.26 per share as of June 30, 2019;
- 142,852 shares of common stock issuable upon vesting of restricted stock units outstanding under our stock incentive plans as of June 30, 2019;
 and
- 2,000,000 shares of common stock issuable upon exercise of outstanding warrants, at an exercise price of \$4.25 per share, as of July 15, 2019.

To the extent that outstanding options or warrants outstanding as of June 30, 2019 or September 6, 2019, respectively, have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into the Equity Distribution Agreement with Piper Jaffray, as our sales agent. This prospectus supplement is only offering \$17,054,687 in shares of our common stock. We will be required to file another prospectus supplement in the event we want to offer more than \$17,054,687 in shares of our common stock in accordance with the terms of the Equity Distribution Agreement. Piper Jaffray will use commercially reasonable efforts to sell on our behalf all shares of our common stock requested to be sold by us, consistent with its normal trading and sales practices, under the terms and subject to the conditions set forth in the Equity Distribution Agreement. We may instruct Piper Jaffray not to sell our common stock if the sales cannot be effected at or above the price designated by us in any instruction. We or Piper Jaffray may suspend the offering of our common stock upon proper notice and subject to other conditions, as further described in the Equity Distribution Agreement.

Piper Jaffray may sell our common stock by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act, including sales made directly on or through the Nasdaq Capital Market or on any other existing trading market for our common stock. Piper Jaffray will provide written confirmation to us following the close of trading on the Nasdaq Capital Market each day in which our common stock is sold under the Equity Distribution Agreement. Each such confirmation will include the number of shares of our common stock sold on such day, the net proceeds to us and the compensation payable by us to Piper Jaffray in connection with such sales.

We will pay Piper Jaffray commissions for its services in acting as sales agent in the sale of our common stock. Piper Jaffray will be entitled to compensation in an amount equal to 3.0% of the gross sales price of all common stock sold through it as sales agent under the Equity Distribution Agreement. We have also agreed to reimburse Piper Jaffray for the out-of-pocket reasonable fees and disbursements of its legal counsel, in an amount not to exceed \$50,000, and for FINRA-related expenses. We estimate that the total expenses for this offering, excluding compensation payable to Piper Jaffray under the terms of the Equity Distribution Agreement, will be approximately \$0.7 million.

Settlement for sales of our common stock will occur on the second business day following the date on which any such sales are made, or on some other date that is agreed upon by us and Piper Jaffray in connection with a particular transaction, in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will report at least quarterly the number of shares of our common stock sold through Piper Jaffray, as sales agent, under the Equity Distribution Agreement, the net proceeds to us and the compensation paid by us to Piper Jaffray in connection with such sales.

Piper Jaffray and its affiliates have from time to time provided, and may in the future provide, various investment banking, commercial banking, fiduciary and advisory services for us for which they have received, and may in the future receive, customary fees and expenses. Piper Jaffray and its affiliates may from time to time engage in other transactions with and perform services for us in the ordinary course of their business.

In connection with the sale of our common stock on our behalf, Piper Jaffray will be deemed to be an underwriter within the meaning of the Securities Act, and the compensation paid by us to Piper Jaffray will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Piper Jaffray against specified liabilities, including liabilities under the Securities Act, or to contribute to payments that Piper Jaffray may be required to make because of such liabilities.

The offering of our common stock pursuant to the Equity Distribution Agreement will terminate upon the termination of the Equity Distribution Agreement. The Equity Distribution Agreement may be terminated by Piper Jaffray or us at any time on the close of business on the date of receipt of written notice, and by Piper Jaffray at any time in certain circumstances, including any suspension or limitation on the trading of our common stock on the Nasdaq Capital Market, as further described therein.

LEGAL MATTERS

Certain legal matters in connection with this offering will be passed upon for us by Dechert LLP, New York, New York. Piper Jaffray & Co. is being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

The consolidated financial statements of Aquestive Therapeutics, Inc. as of December 31, 2018 and 2017, and for each of the years in the two-year period ended December 31, 2018, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, with respect to the securities being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to herein are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

We file electronically with the SEC annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other information and amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Exchange Act. The SEC maintains an Internet site (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Copies of these reports, proxy and information statements and other information may be obtained by electronic request at the following e-mail address: publicinfo@sec.gov.

We make available, free of charge and through our Internet web site at www.aquestive.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to any such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Copies of our Code of Ethics and our Corporate Governance Guidelines may be accessed free of charge by visiting our website at www.aquestive.com under "Investors" at "Corporate Governance: Governance Documents" or by requesting a copy via an e-mail addressed to investorrelations@aquestive.com or by written request addressed to our Corporate Secretary at our principal executive offices. To the extent required by applicable law and regulation, we intend to post on our website any amendment to, or waiver under, a provision of the Code of Ethics that applies to our executive officers and directors within the time period required. The information set forth on, or connected to, our website is expressly not incorporated by reference into, and does not constitute a part of, this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-38599. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 14, 2019;
- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 29, 2019;
- our Quarterly Reports on Form 10-Q for the quarters ended <u>March 31, 2019</u> and <u>June 30, 2019</u>, as filed with the SEC on May 8, 2019 and August 6, 2019:
- our Current Reports on Form 8-K filed with the SEC on May 8, 2019, June 18, 2019 and July 16, 2019, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on <u>July 20, 2018</u>, including any amendments or reports filed for the purposes of updating this description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

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We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Aquestive Therapeutics, Inc., Attn: Corporate Secretary, 30 Technology Dr. South, Warren, NJ 07059; telephone: (908) 941-1900.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.



Up to \$17,054,687

Common Stock

PROSPECTUS

Piper Jaffray

September 17, 2019