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Filed pursuant to Rule 424(b)(5)
Registration No. 333-229045

PROSPECTUS SUPPLEMENT
(To Prospectus dated February 11, 2019)

25,476,989 Shares



Common Stock

We are offering 25,476,989 shares of our common stock. Our common stock is listed on the Nasdaq Capital Market under the symbol "HTGM." On September 18, 2019, the closing price of our common stock on the Nasdaq Capital Market was \$0.80 per share.

We are an "emerging growth company" under applicable Securities and Exchange Commission rules and are subject to certain reduced public company reporting requirements.

Investing in our common stock involves risks. See "[Risk Factors](#)" on page S-8 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$ 0.650	\$ 16,560,042.85
Underwriting discounts and commissions ⁽¹⁾	\$ 0.039	\$ 993,602.57
Proceeds, before expenses, to us	\$ 0.611	\$ 15,566,440.28

(1) See "Underwriting" beginning on page S-14 of this prospectus supplement for additional disclosure regarding underwriting compensation.

We have granted the underwriter an option to purchase up to an additional 3,821,548 shares of our common stock at the public offering price, less the underwriting discounts and commissions, for a period of 30 days following the date of this prospectus supplement. If the underwriter exercises in full its option, the total underwriting discounts and commissions payable by us will be \$1,142,642.94, and the total proceeds to us, before expenses, will be \$17,901,406.11.

The underwriter expects to deliver the shares to investors on or about September 24, 2019.

Sole Book-Running Manager

Cantor

September 20, 2019

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[Table of Contents](#)**ABOUT THIS PROSPECTUS SUPPLEMENT**

This prospectus supplement and the accompanying prospectus relate to an offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus supplement and the accompanying 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 supplement. These documents contain important information that you should consider when making your investment decision.

Unless otherwise specified or required by context, references in this prospectus supplement to “HTG Molecular Diagnostics,” “HTG,” “we,” “us” and “our” refer to HTG Molecular Diagnostics, Inc.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to, updates and changes information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the accompanying prospectus, which gives more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent the information contained in this prospectus supplement differs from or conflicts with the information contained in the accompanying prospectus or any document incorporated by reference having an earlier date, the information in this prospectus supplement will control. 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 supplement and the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We have not, and the underwriter has not, authorized anyone to provide you with information different from that which is contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. No one is making offers to sell or seeking offers to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front cover of this prospectus supplement only and that any information we have incorporated by reference or included in the accompanying prospectus is accurate only as of the date given in the document incorporated by reference or as of the date of the prospectus, as applicable, regardless of the time of delivery of this prospectus supplement, the accompanying prospectus, any related free writing prospectus, or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus supplement or the accompanying prospectus 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.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and therein by reference may include trademarks, service marks and trade names owned by us, including VERI/O, HTG Edge, HTG EdgeSeq and qNPA, or by other companies. Solely for convenience, trademarks and trade names, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us and this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we authorize for use in connection with this offering, including the information contained in and incorporated by reference under the heading “Risk Factors” on page S-8 of this prospectus supplement, and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement and the accompanying prospectus.

Overview

We are a commercial stage RNA platform-based life sciences company focused on advancing the promise of precision medicine. Our product and service solutions are based on our proprietary next-generation HTG EdgeSeq technology that enables full RNA profiling using a small amount of biological sample, in liquid or solid forms. Our menu of HTG EdgeSeq assays is automated on our HTG EdgeSeq platform, which applies genetic sequencing tools that generate expression data in a timely manner utilizing a simplified workflow for customers. We seek to leverage key business drivers in molecular profiling for biomarker analysis and diagnostics, including the acceleration of precision medicine, the migration of molecular testing to next-generation sequencing (“NGS”) based applications, the movement to smaller and less invasive biopsies, the need for greater diagnostic sensitivity, the need to conform to challenging healthcare economics and the need for automation and an easily deployable workflow. For example, these capabilities enable customers to extend the use of limited biological samples for retrospective analysis, gaining further understanding of the molecular drivers of disease with the goal of developing biomarker-driven targeted therapies. We also believe our technology can be used in clinical applications that will simplify, consolidate and reduce the cost of NGS-based diagnostic workflows and in commercialized companion diagnostic (“CDx”) tests.

Our HTG EdgeSeq platform is currently focused on RNA-based applications, which we believe is an area of significant unmet need and where we have demonstrated competitive advantages. In addition to expanding our applications in RNA, we are developing our HTG EdgeSeq technology to analyze DNA in biological samples, as we expect the market to express a growing need for multi-modal testing and analysis.

Our products include instrumentation, consumables, including assay kits, and software analytics that, as an integrated system, automate sample processing and can quickly, robustly and simultaneously profile tens, hundreds or thousands of molecular targets from samples a fraction of the size required by many prevailing technologies. Our objective is to establish our solutions as the standard in biomarker development and molecular diagnostics, and to make their benefits accessible to all molecular labs from research to the clinic. We believe that our target customers desire high quality molecular profiling information in a multiplexed panel format from increasingly smaller and less invasive samples, with the ability to test and analyze such information locally to minimize turnaround time and cost.

We believe customer utilization of our HTG EdgeSeq technology will drive the following three distinct but synergistic revenue streams:

1. Research use only (“RUO”) profiling revenue associated with biomarker programs in biopharmaceutical companies and other translational research centers. Customers access our technology by purchasing our HTG EdgeSeq platform and/or utilizing our VERI/O service lab

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capabilities. The number of early stage biomarker programs utilizing our technology has been growing steadily and we expect this number to continue to grow as we launch new profiling panels. We expect some of these programs to advance to late-stage programs that will require diagnostic grade investigational use only (“IUO”) assays for use in clinical trials, which is a driver of our second revenue stream, collaboration service revenue.

2. Collaborative development services revenue associated with companion diagnostic development programs for biopharmaceutical companies. Our HTG EdgeSeq technology is utilized to develop, seek regulatory approval for and commercialize CDx assays for biopharmaceutical drug candidates and corresponding therapeutics. In November 2016, we entered into a Master Assay Development, Commercialization and Manufacturing Agreement (the “Governing Agreement”) with QIAGEN Manchester Limited (“QML”), a wholly owned subsidiary of QIAGEN N.V. in the field of oncology. The Governing Agreement is presently exclusive in the field of oncology, but we expect it to become non-exclusive in the field of oncology with respect to future programs at either our or QML’s election commencing November 16, 2019. We have also entered into collaborative development agreements directly with biopharmaceutical company customers in other fields. Alone, or in partnership with QML, we have entered into four companion diagnostic agreements to date, of which two are actively generating collaborative development services revenue as of June 30, 2019. Collaborative development services revenue has been and is expected to continue to fluctuate significantly from period to period as this revenue is heavily milestone-driven such that delays in completion or acceptance of project milestones and biopharmaceutical company customer internal timeline adjustments result in periods of varying levels of development activity that is often difficult to forecast. We believe this is an important component of our business due to the possibility of successful late stage programs leading to commercialization of CDx tests in multiple geographies. We believe such commercialization would contribute significantly to our third expected revenue stream.
3. Our third developing revenue stream, MDx revenue, represents the sale of our regulated diagnostic products. To date, MDx revenue includes revenue generated through the sale of CE/IVD labeled diagnostic products and the use by our customers in Europe of our RUO consumable products for their own lab developed tests. We plan to generate MDx revenue from three primary sources:
 - companion diagnostic assays resulting from our biopharmaceutical collaborations;
 - diagnostic partnerships resulting from our collaborations with European key opinion leaders; and
 - proprietary diagnostic assays developed by us.

As of June 30, 2019, we sell two internally developed proprietary CE/IVD marked assays: our HTG EdgeSeq DLBCL Cell of Origin Assay EU and HTG EdgeSeq ALK*Plus* Assay EU. Several additional diagnostic tests are in early stage development, which we expect to drive this category of revenue in future periods.

To further facilitate our ability to generate European MDx revenue and improve our responsiveness to customer needs on a local level, we formed a French subsidiary, HTG Molecular Diagnostics France SARL (“HTG France”), in November 2018. HTG France operates an applications incubator laboratory in Sausheim, France, providing application support and biomarker program services for our European collaborations. HTG France currently provides similar biomarker program services to those provided by our VERI/O laboratory in the United States, but on a much smaller scale.

In the first quarter of 2019, we announced the initiation of a program for the clinical development of a comprehensive breast cancer molecular diagnostic assay. This program will be headquartered in a new development facility in San Carlos, California. Our Chief Scientific Officer, Dr. Maureen Cronin, will oversee this new breast cancer program and Dr. Joseph Sparano of the Albert Einstein College of Medicine has agreed to

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lead our scientific advisory board for the program. Dr. Cronin and Dr. Sparano have extensive experience in breast cancer and breast cancer diagnostics which we expect to provide significant benefit throughout this development process. In addition, Laura Beggrow, our President, Diagnostics, will lead our diagnostic initiatives, including the daily management of the breast cancer program's development team and collaboration with our key opinion leaders.

Our objective is to establish our solutions as the standard in molecular profiling, and to make their benefits accessible to all molecular labs from research to the clinic. The key components of our strategy are:

- *Increase and strengthen companion diagnostics collaborations with biopharmaceutical companies.* We believe collaborations with biopharmaceutical companies with late-stage drug development programs will lead to us generating companion diagnostic consumables revenue. As of June 30, 2019, we had 72 active early stage development programs across leading biopharmaceutical companies which are incorporating biomarkers and potentially companion diagnostics in their drug development programs. We plan to develop novel RNA-based gene classifiers to help biopharmaceutical companies and leading translational medicine researchers better understand and predict durable response to immune checkpoint inhibitor drug candidates, such as anti-PD-L1 therapeutics, in mono and combination therapies. We also plan to develop novel RNA profiling tests that can provide important biomarker information in emerging areas of immuno-oncology, auto-immune and other disease areas.
- *Develop new proprietary molecular diagnostic panels with high medical utility.* Our HTG EdgeSeq platform was developed with features that we believe solve many of the issues facing NGS-based workflows. We believe our technology will enable local molecular labs to routinely test targeted RNA expression, including expressed gene mutations, such as ALK gene rearrangements using our HTG EdgeSeq ALK*Plus* Assay, all from extremely small samples, such as a single five-micron section of formalin-fixed paraffin-embedded tissue. We plan to develop future molecular diagnostic assays in conformance with existing reimbursement codes to facilitate our clinical customers' billings. We also plan to work in the major European medical centers to develop and validate certain solid tumor classifiers and lower cost alternatives for breast and prostate cancer testing.
- *Establish our systems workflow as the best solution for clinical sequencing.* We intend to continue to establish our technology as the best complimentary workflow with next generation sequencers. We believe our differentiated HTG EdgeSeq chemistry will accelerate adoption by leveraging the large and growing installed base of next generation sequencers. We are engaged with industry and corporate partners, including Illumina, Inc., Thermo Fisher Scientific, Inc. and QML, to position our HTG EdgeSeq products as the benchmark for workflow in targeted sequencing applications.
- *Expand the addressable market of our technology through new applications and expansion into new liquid biopsies.* We have demonstrated technical feasibility for several new applications that are intended to allow us to measure DNA mutations directly and/or in expressed RNA and improve the already-high sensitivity of our HTG EdgeSeq assays. These and other planned new applications are expected to allow us to, among other things, develop future "multi-parameter" panels that detect both RNA and DNA targets in a single assay, for use in translational research, companion diagnostics and molecular diagnostics. As biopsies continue to utilize less invasive methods, it will be important to expand our applicability to new liquid samples such as PAXgene, platelets and exosomes.

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The following chart summarizes our product pipeline and our annual estimated total available market (“TAM”) opportunity for each product in the United States (“US”) and/or the European Union (“EU”).

	Estimated Annual TAM	Status	Targeted Commercial Launch
 EdgeSeq ALKPlus EU Lung	EU TAM 300,000 cases \$75.0 million	On Market EU	N/A
 EdgeSeq DLBCL EU Lymphoma	EU TAM 30,000 cases \$5.0 million	On Market EU	N/A
 EdgeSeq Breast	US & EU TAM 1,000,000 cases \$1.5 billion	In Development	Early 2021
 EdgeSeq Total Lung	US & EU TAM 445,000 cases \$0.7 billion	In Process	TBD

Concurrent Private Placement

In a concurrent private placement, a limited number of our current investors, each of which is an institutional accredited investor, have indicated an interest in purchasing pre-funded warrants exercisable for up to an aggregate of 5,411,687 shares of our common stock. Because this indication of interest is not a binding agreement or commitment to purchase, these institutional accredited investors may determine not to purchase any pre-funded warrants in the contemplated private placement. The pre-funded warrants issued in the private placement and the shares of our common stock issuable upon exercise of the pre-funded warrants are not being registered under the Securities Act of 1933, as amended (the “Securities Act”), are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to an exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder. Each pre-funded warrant sold in the private placement will be exercisable for one share of our common stock and will have a purchase price equal to the price at which a share of common stock is sold to the public in this offering, minus \$0.01. The exercise price of each pre-funded warrant will be \$0.01 per share. Each pre-funded warrant will be immediately exercisable and may be exercised at any time until exercised in full.

Corporate Information

We were originally incorporated in Arizona in October 1997 as “High Throughput Genomics, Inc.” In December 2000, we reincorporated in Delaware as “HTG, Inc.” and in March 2011 we changed our name to “HTG Molecular Diagnostics, Inc.” Our principal executive offices are located at 3430 E. Global Loop, Tucson, AZ 85706, and our telephone number is (877) 289-2615. Our corporate website address is www.htgmolecular.com. Information contained on or accessible through our website is not a part of this prospectus supplement, the accompanying prospectus or any of the documents incorporated by reference herein, and the inclusion of our website address in this prospectus supplement is an inactive textual reference only.

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

We are an “emerging growth company” under applicable Securities and Exchange Commission (“SEC”) rules and therefore we may take advantage of certain exemptions from various public company reporting

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requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until we are no longer an “emerging growth company.” We will remain an emerging growth company until the earliest of (1) December 31, 2020, (2) the last day of the fiscal year (a) in which we have total annual gross revenue of approximately \$1.07 billion, or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeded \$700.0 million as of the prior June 30th, and (3) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

We are also a “smaller reporting company” as defined in the Securities Exchange Act of 1934, as amended (“Exchange Act”), and have elected to take advantage of certain of the scaled disclosures available to smaller reporting companies.

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The Offering	
Common stock to be offered by us	25,476,989 shares
Option to purchase additional shares from us	We have granted the underwriter an option for 30 days from the date of this prospectus supplement to purchase up to 3,821,548 additional shares of our common stock.
Concurrent Private Placement	In a concurrent private placement, a limited number of our current investors, each of which is an institutional accredited investor, have indicated an interest in purchasing pre-funded warrants exercisable for up to an aggregate of 5,411,687 shares of our common stock. Because this indication of interest is not a binding agreement or commitment to purchase, these institutional accredited investors may determine not to purchase any pre-funded warrants in the contemplated private placement. Each pre-funded warrant sold in the private placement will be exercisable for one share of our common stock and will have a purchase price equal to the price at which a share of common stock is sold to the public in this offering, minus \$0.01. The exercise price of each pre-funded warrant will be \$0.01 per share. Each pre-funded warrant will be immediately exercisable and may be exercised at any time until exercised in full.
Common stock to be outstanding after this offering	54,184,036 shares (or 58,005,584 shares if the underwriter exercises in full its option to purchase additional shares).
Use of proceeds	We intend to use the net proceeds from this offering for working capital and general corporate purposes, which may include capital expenditures and research and development, sales and marketing and general and administrative expenses. See “Use of Proceeds” on page S-12 of this prospectus supplement.
Risk factors	See the section entitled “Risk Factors” on page S-8 of this prospectus supplement for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Nasdaq Capital Market symbol	“HTGM”
<p>The number of shares of common stock outstanding immediately following this offering set forth above is based on 28,707,047 shares of common stock outstanding as of June 30, 2019 and excludes, as of that date:</p> <ul style="list-style-type: none"> • 2,334,272 shares of common stock issuable upon the exercise of outstanding stock options at a weighted-average exercise price of \$2.87 per share; • 254,580 shares of common stock issuable pursuant to outstanding restricted stock units; • 234,366 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan; • 314,078 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan; • 155,000 shares of common stock reserved for future issuance as inducement awards; 	

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- 174,871 shares of common stock reserved for future issuance under our Amended and Restated Stock Purchase Plan;
- 236,915 shares of common stock issuable upon the exercise of outstanding warrants at a weighted-average exercise price of \$12.52 per share; and
- 788,971 shares of common stock issuable upon conversion of an outstanding convertible note at a conversion price of approximately \$3.984 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the underwriter's option to purchase additional shares and gives no effect to the sale or issuance of any pre-funded warrants that may be sold and issued in the concurrent private placement.

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[Table of Contents](#)**RISK FACTORS**

Investing in our common stock involves a high degree of risk. Our business, prospects, financial condition or operating results could be materially adversely affected by the risks identified below, as well as other risks not currently known to us or that we currently consider immaterial. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing the risks described below, you should also refer to the information contained in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 and other documents which are incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety, and other documents that we file from time to time with the SEC.

Risks Related to This Offering

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

We have not designated any portion of the net proceeds from this offering to be used for any particular purpose. Our management will have broad discretion as to the application of the net proceeds from 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.

You may experience immediate and substantial dilution in the book value per share of the common stock you purchase in this offering.

Since the price per share of our common stock being offered in this offering is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of \$0.65 per share, and a net book value of \$11.3 million, or \$0.39 per share of common stock, as of June 30, 2019, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$0.16 per share in the net tangible book value of the common stock you purchase. The exercise of outstanding stock options and warrants and the settlement of restricted stock units may result in further dilution of your investment. See the section entitled “Dilution” for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering, including through our “at-the-market” equity offering program. In March 2019, we entered into a sales agreement with Cowen and Company, LLC (“Cowen”), pursuant to which we may offer and sell, from time to time, through Cowen, shares of our common stock having an aggregate offering price of up to \$40.0 million in transactions that are deemed to be “at-the-market offerings” as defined in Rule 415 under the Securities Act. As of the date of this prospectus supplement, we have not sold any shares of our common stock under the sales agreement. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

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We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In addition, our ability to pay cash dividends is currently prohibited by the terms of our debt facility, and any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Any return to stockholders will therefore be limited to the appreciation of their stock.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents we have filed with the SEC that are incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can often be identified by the use of forward-looking words such as “believe,” “expect,” “hope,” “may,” “will,” “plan,” “intend,” “estimate,” “could,” “should,” “would,” “continue,” “seek,” “pro forma,” or “anticipate,” or other similar words (including their use in the negative), or by discussions of future matters. Forward-looking statements include, but are not limited to statements about:

- our ability to successfully commercialize our products and services, including our HTG EdgeSeq assays and corresponding automation systems;
- our ability to generate sufficient revenue or raise additional capital to meet our working capital needs;
- our ability to generate revenue from our products and services and drive revenue streams, including molecular diagnostic revenue;
- our ability to secure regulatory clearance or approval, domestically and internationally, for the clinical use of our products;
- our ability to develop new technologies to expand our product offerings, including direct-target sequencing for detection of mutations in genomic DNA and/or expressed RNA (such as single-point mutations and gene rearrangements, including gene fusions and insertions), and methods to detect mutation load and microsatellite instability;
- the activities anticipated to be performed by us and third parties under design and development projects and programs, and the expected benefits and outcomes of such projects and programs;
- the implementation of our business model and strategic plans for our business;
- the regulatory landscape for our products, domestically and internationally;
- our strategic relationships, including with holders of intellectual property relevant to our technologies, manufacturers of NGS instruments and consumables, critical component suppliers, distributors of our products, and third parties who conduct our clinical studies;
- future activities under, and potential modifications to, the Governing Agreement with QML;
- our intellectual property position;
- our ability to comply with the restrictions of our debt facility and meet our debt obligations;
- our expectations regarding the market size and growth potential for our life sciences and diagnostic businesses;
- our expectations regarding trends in the demand for sample processing by our biopharmaceutical company customers;
- any estimates regarding expenses, future revenue and capital requirements;
- our ability to sustain and manage growth, including our ability to develop new products and enter new markets;
- our ability to continue as a going concern;

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- our expectations related to the use of the net proceeds from this offering;
- our expectations regarding the time during which we are an emerging growth company under the Jumpstart Our Business Startups Act of 2012, as amended; and
- other factors discussed in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date the statement is made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

The cautionary statements made in this prospectus supplement and the accompanying prospectus are intended to be applicable to all related forward-looking statements wherever they may appear in this prospectus supplement or in the accompanying prospectus or any documents incorporated by reference herein or therein. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future.

[Table of Contents](#)**USE OF PROCEEDS**

We estimate the net proceeds to us from this offering will be approximately \$15.2 million (or \$17.6 million if the underwriter exercises in full its option to purchase additional shares), after payment of the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for working capital and general corporate purposes, which may include capital expenditures and research and development, sales and marketing and general and administrative expenses. We may also use a portion of the net proceeds from this offering to acquire or invest in businesses, products and technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any such acquisitions or investments as of the date of this prospectus supplement.

We cannot currently allocate specific percentages of the net proceeds to us from this offering that we may use for the purposes specified above and our management will have broad discretion in the allocation of the net proceeds. Pending their use, we currently expect to invest the net proceeds from this offering in U.S. Treasuries, U.S. government sponsored agency obligations and/or high credit quality corporate debt securities.

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DILUTION

Our net tangible book value as of June 30, 2019 was approximately \$11.3 million, or \$0.39 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of June 30, 2019.

After giving effect to the sale of 25,476,989 shares of our common stock in this offering at the public offering price of \$0.65 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2019 would have been approximately \$26.5 million, or \$0.49 per share. This represents an immediate increase in net tangible book value of \$0.10 per share to existing stockholders and immediate dilution in net tangible book value of \$0.16 per share to investors purchasing our common stock in this offering.

The following table illustrates this dilution on a per share basis:

Public offering price per share		\$0.65
Net tangible book value per share as of June 30, 2019	\$0.39	
Increase in net tangible book value per share attributable to this offering	<u>0.10</u>	
As adjusted net tangible book value per share as of June 30, 2019, after giving effect to this offering		<u>0.49</u>
Dilution per share to new investors purchasing shares in this offering		<u>\$0.16</u>

If the underwriter exercises in full its option to purchase up to 3,821,548 additional shares of common stock at the public offering price of \$0.65 per share, the as adjusted net tangible book value after this offering would be \$0.50 per share, representing an increase in net tangible book value of \$0.10 per share to existing stockholders and immediate dilution in net tangible book value of \$0.15 per share to investors purchasing our common stock in this offering.

The above discussion and table are based on 28,707,047 shares outstanding as of June 30, 2019, and exclude as of that date:

- 2,334,272 shares of common stock issuable upon the exercise of outstanding stock options at a weighted-average exercise price of \$2.87 per share;
- 254,580 shares of common stock issuable pursuant to outstanding restricted stock units;
- 234,366 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan;
- 314,078 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan;
- 155,000 shares of common stock reserved for future issuance as inducement awards;
- 174,871 shares of common stock reserved for future issuance under our Amended and Restated Stock Purchase Plan;
- 236,915 shares of common stock issuable upon the exercise of outstanding warrants at a weighted-average exercise price of \$12.52 per share; and
- 788,971 shares of common stock issuable upon conversion of an outstanding convertible note at a conversion price of approximately \$3.984 per share.

To the extent that outstanding options or warrants are exercised or outstanding restricted stock units are settled, you may experience further dilution. We may choose to raise additional capital due to market conditions or strategic considerations even if at that time 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.

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UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated September 20, 2019, between us and Cantor Fitzgerald & Co., 499 Park Avenue, New York, New York 10022, as the sole book-running manager of this offering, we have agreed to sell to Cantor Fitzgerald & Co., and Cantor Fitzgerald & Co. has agreed to purchase from us, the shares of common stock shown opposite its name below:

<u>Underwriter</u>	<u>Number of Shares</u>
Cantor Fitzgerald & Co.	25,476,989
Total	<u>25,476,989</u>

The underwriting agreement provides that the obligations of Cantor Fitzgerald & Co. are subject to certain conditions precedent such as the receipt by Cantor Fitzgerald & Co. of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that Cantor Fitzgerald & Co. will purchase all of the shares of common stock if any of them are purchased. We have agreed to indemnify Cantor Fitzgerald & Co. and certain of its controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that Cantor Fitzgerald & Co. may be required to make in respect of those liabilities.

Cantor Fitzgerald & Co. is offering the shares of common stock subject to its acceptance of the shares of common stock from us and subject to prior sale. Cantor Fitzgerald & Co. reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares

We have granted to Cantor Fitzgerald & Co. an option, exercisable 30 days from the date of this prospectus supplement, to purchase, from time to time, in whole or in part, up to an aggregate of 3,821,548 shares from us at the public offering price set forth on the cover page of this prospectus supplement, less underwriting discounts and commissions.

Commission and Expenses

Cantor Fitzgerald & Co. has advised us that it proposes to offer the shares of common stock to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$0.0234 per share of common stock. After the initial offering, Cantor Fitzgerald & Co. may change the offering price and other selling terms.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay Cantor Fitzgerald & Co. and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of Cantor Fitzgerald & Co.'s option to purchase additional shares.

	<u>Per Share</u>		<u>Total</u>	
	<u>Without Option to Purchase Additional Shares</u>	<u>With Option to Purchase Additional Shares</u>	<u>Without Option to Purchase Additional Shares</u>	<u>With Option to Purchase Additional Shares</u>
Public offering price	\$ 0.650	\$ 0.650	\$ 16,560,042.85	\$ 19,044,049.05
Underwriting discounts and commissions	\$ 0.039	\$ 0.039	\$ 993,602.57	\$ 1,142,642.94
Proceeds to us, before expenses	\$ 0.611	\$ 0.611	\$ 15,566,440.28	\$ 17,901,406.11

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$350,000. We have also agreed to reimburse the

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underwriter for up to \$20,000 of certain of their counsels' fees and expenses, which reimbursed fee is deemed underwriting compensation for this offering by FINRA.

Listing

Our common stock is listed on the Nasdaq Capital Market under the trading symbol "HTGM."

No Sales of Similar Securities

We, our officers and our directors have agreed, subject to certain specified exceptions, not to directly or indirectly, for a period of 90 days after the date of the underwriting agreement:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant for the sale of any common stock;
- otherwise dispose of or transfer any common stock;
- request or demand that we file a registration statement related to the common stock; or
- enter into any swap or other agreement or any transaction that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap, agreement or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

In addition, we and each such person agrees that, without the prior written consent of Cantor Fitzgerald & Co., we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions in the immediately preceding paragraph do not apply in certain circumstances, including:

- as a bona fide gift or gifts;
- to any trust for the direct or indirect benefit of such person or the immediate family of such person;
- as a distribution to limited partners, limited liability company members or stockholders of such person;
- to a corporation, partnership, limited liability company, investment fund or other entity that controls or is controlled by, or is under common control with, such person, or is wholly-owned by such person, or, in the case of an investment fund, that is managed by, or is under common management with, such person;
- a vesting event of our securities or upon the exercise or conversion of options or warrants to purchase our securities, in each case, on a "cashless" or "net exercise" basis in connection with such vesting or exercise;
- transfers to us in satisfaction of any tax withholding obligation;
- transfers to us in connection with the termination of such person's employment or other service with us;
- transfers by operation of law, including pursuant to a domestic order or a negotiated divorce settlement;
- transfers by will or intestate succession upon death of such person; or
- transfers pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction involving a change of control.

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Cantor Fitzgerald & Co. may, in its sole discretion and at any time or from time to time before the termination of the 90-day period release all or any portion of the securities subject to lock-up agreements.

Market Making, Stabilization and Other Transactions

Cantor Fitzgerald & Co. may make a market in the common stock as permitted by applicable laws and regulations. However, Cantor Fitzgerald & Co. is not obligated to do so, and Cantor Fitzgerald & Co. may discontinue any market-making activities at any time without notice in its sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriter has advised us that it, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve either “covered” short sales or “naked” short sales.

“Covered” short sales are sales made in an amount not greater than the underwriter’s option to purchase additional shares of our common stock in this offering. The underwriter may close out any covered short position by either exercising its option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through the option to purchase additional shares.

“Naked” short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriter must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriter is concerned that there may be downward pressure on the price of the shares of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriter for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriter to reduce a short position incurred by the underwriter in connection with the offering. Similar to other purchase transactions, the underwriter’s purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriter to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriter is not obligated to engage in these activities and, if commenced, may end any of these activities at any time.

Passive Market Making

The underwriter may also engage in passive market making transactions in our common stock on the Nasdaq in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A

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passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriter is not required to engage in passive market making and, if commenced, may end passive market making activities at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by the underwriter, selling group members (if any) or its affiliates. The underwriter may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriter on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriter's web site and any information contained in any other web site maintained by the underwriter is not part of this prospectus supplement, has not been approved and/or endorsed by us or the underwriter and should not be relied upon by investors.

Other Activities and Relationships

Cantor Fitzgerald & Co. and certain of its affiliates are full service financial institutions engaged in a wide range of activities for their own accounts and the accounts of customers, which may include, among other things, corporate finance, mergers and acquisitions, merchant banking, equity and fixed income sales, trading and research, derivatives, foreign exchange, futures, asset management, custody, clearance and securities lending. Cantor Fitzgerald & Co. and certain of its affiliates have, from time to time, performed, and may in the future perform, various investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses. Cantor Fitzgerald & Co. is serving as the placement agent for the proposed concurrent private placement of pre-funded warrants described elsewhere in this prospectus supplement, and will be paid a customary fee for this service.

In addition, in the ordinary course of its business, Cantor Fitzgerald & Co. and its affiliates may, directly or indirectly, hold long or short positions, trade and otherwise conduct such activities in or with respect to debt or equity securities and/or bank debt of, and/or derivative products. Such investment and securities activities may involve our securities and instruments. Cantor Fitzgerald & Co. and its affiliates may also make investment recommendations 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 or short positions in such securities and instruments.

Stamp Taxes

If you purchase shares of common stock offered in this prospectus supplement, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus supplement.

[Table of Contents](#)**NOTICE TO INVESTORS****Canada**

This prospectus supplement constitutes an “exempt offering document” as defined in and for the purposes of applicable Canadian securities laws. No prospectus has been filed with any securities commission or similar regulatory authority in Canada in connection with the offer and sale of the common stock. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this prospectus supplement or on the merits of the common stock and any representation to the contrary is an offence.

Canadian investors are advised that this prospectus supplement has been prepared in reliance on section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (“NI 33-105”). Pursuant to section 3A.3 of NI 33-105, this prospectus supplement is exempt from the requirement that the Company and the underwriter(s) provide investors with certain conflicts of interest disclosure pertaining to “connected issuer” and/or “related issuer” relationships that may exist between the Company and the underwriter(s) as would otherwise be required pursuant to subsection 2.1(1) of NI 33-105.

Resale Restrictions

The offer and sale of the common stock in Canada is being made on a private placement basis only and is exempt from the requirement that the Company prepares and files a prospectus under applicable Canadian securities laws. Any resale of the common stock acquired by a Canadian investor in this offering must be made in accordance with applicable Canadian securities laws, which may vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with Canadian prospectus requirements, pursuant to a statutory exemption from the prospectus requirements, in a transaction exempt from the prospectus requirements or otherwise under a discretionary exemption from the prospectus requirements granted by the applicable local Canadian securities regulatory authority. These resale restrictions may under certain circumstances apply to resales of the common stock outside of Canada.

Representations of Purchasers

Each Canadian investor who purchases the common stock will be deemed to have represented to the Company and the underwriter(s) that the investor (i) is purchasing the common stock as principal, or is deemed to be purchasing as principal in accordance with applicable Canadian securities laws, for investment only and not with a view to resale or redistribution; (ii) is an “accredited investor” as such term is defined in section 1.1 of National Instrument 45-106 *Prospectus Exemptions* (“NI 45-106”) or, in Ontario, as such term is defined in section 73.3(1) of the *Securities Act* (Ontario); and (iii) is a “permitted client” as such term is defined in section 1.1 of National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*.

Taxation and Eligibility for Investment

Any discussion of taxation and related matters contained in this prospectus supplement does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian investor when deciding to purchase the common stock and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the common stock or with respect to the eligibility of the common stock for investment by such investor under relevant Canadian federal and provincial legislation and regulations.

Rights of Action for Damages or Rescission

Securities legislation in certain of the Canadian jurisdictions provides certain purchasers of securities pursuant to an offering memorandum (such as this prospectus supplement), including where the distribution

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involves an “eligible foreign security” as such term is defined in Ontario Securities Commission Rule 45-501 *Ontario Prospectus and Registration Exemptions* and in Multilateral Instrument 45-107 *Listing Representation and Statutory Rights of Action Disclosure Exemptions*, as applicable, with a remedy for damages or rescission, or both, in addition to any other rights they may have at law, where the offering memorandum, or other offering document that constitutes an offering memorandum, and any amendment thereto, contains a “misrepresentation” as defined under applicable Canadian securities laws. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed under, and are subject to limitations and defences under, applicable Canadian securities legislation. In addition, these remedies are in addition to and without derogation from any other right or remedy available at law to the investor.

Language of Documents

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur Canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.*

Australia

This prospectus is not a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, has not been lodged with the Australian Securities & Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus in Australia:

You confirm and warrant that you are either:

- a “sophisticated investor” under section 708(8)(a) or (b) of the Corporations Act;
- a “sophisticated investor” under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made; or
- a “professional investor” within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor or professional investor under the Corporations Act any offer made to you under this prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the shares issued to you pursuant to this prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

European Economic Area

In relation to each Member State of the European Economic Area, no offer of any securities which are the subject of the offering contemplated by this prospectus has been or will be made to the public in that Member State other than any offer where a prospectus has been or will be published in relation to such securities that has been approved by the competent authority in that Member State or, where appropriate, approved in another

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Member State and notified to the relevant competent authority in that Member State in accordance with the Prospectus Directive, except that an offer of such securities may be made to the public in that Member State:

- to any legal entity which is a “qualified investor” as defined in the Prospectus Directive;
- to fewer than 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of securities shall require the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

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

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32) of Hong Kong. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance.

This prospectus has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or FIEL, and the Initial Purchaser will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means, unless otherwise provided herein, any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

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Singapore

This prospectus has not been and will not be lodged or registered with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or the invitation for subscription or purchase of the securities may not be issued, circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to the public or any member of the public in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person as defined under Section 275(2), or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions, specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- a corporation (which is not an accredited investor as defined under Section 4A of the SFA) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the Offer Shares under Section 275 of the SFA except:

- to an institutional investor under Section 274 of the SFA or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than \$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions, specified in Section 275 of the SFA;
- where no consideration is given for the transfer; or
- where the transfer is by operation of law.

Switzerland

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

Neither this prospectus nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, or FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

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This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of the shares is directed only at, investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals”, each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors (as defined in the Prospectus Directive) that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, referred to herein as the “Order”, and/or (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated or caused to be communicated. Each such person is referred to herein as a “Relevant Person”.

This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a Relevant Person should not act or rely on this document or any of its contents.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the “FSMA”)) may only be communicated or caused to be communicated in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply. All applicable provisions of the FSMA must be complied with in respect of anything done by any person in relation to the securities in, from or otherwise involving the United Kingdom.

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[Table of Contents](#)**LEGAL MATTERS**

Cooley LLP, San Diego, California, will pass upon the validity of the issuance of the shares being sold in this offering. Certain legal matters relating to this offering will be passed upon for the underwriter by Goodwin Procter LLP, New York, New York.

EXPERTS

The financial statements as of December 31, 2018 and 2017 and for each of the two years in the period ended December 31, 2018 incorporated by reference in this prospectus supplement, have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

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 shares of common stock we are offering under this prospectus supplement. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

We maintain a website at www.htgmolecular.com. Information contained in or accessible through our website does not constitute a part of this prospectus supplement.

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The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. Information incorporated by reference is part of this prospectus supplement and the accompanying prospectus. Later information filed with the SEC will update and supersede this information.

We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement until the termination of the offering of the shares covered by this prospectus supplement (other than portions of 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):

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2018, filed with the SEC on March 7, 2019;
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2019](#) and [June 30, 2019](#), filed with the SEC on May 9, 2019 and August 6, 2019, respectively;
- our Current Reports on Form 8-K, filed with the SEC on [January 14, 2019](#), [January 30, 2019](#), [February 20, 2019](#), [March 13, 2019](#), [April 2, 2019](#), [April 29, 2019](#), [May 28, 2019](#), [June 14, 2019](#), [August 20, 2019](#) and [September 19, 2019](#); and
- 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 April 30, 2015, including any amendments or reports filed for the purpose of updating such description.

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

HTG Molecular Diagnostics, Inc.
Attn: Corporate Secretary
3430 E. Global Loop
Tucson, Arizona 85706
Telephone number: (877) 289-2615

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

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[Table of Contents](#)**PROSPECTUS****\$150,000,000****Common Stock**

From time to time, we may offer and sell shares of our common stock with total gross proceeds of up to \$150,000,000.

This prospectus provides a general description of the terms that may apply to an offering of our common stock. Each time we offer shares of our common stock, we will provide a supplement to this prospectus that contains specific information about the offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in our common stock.

This prospectus may not be used to consummate a sale of our common stock unless accompanied by a prospectus supplement.

Our common stock is traded on The Nasdaq Capital Market under the symbol "HTGM." On December 26, 2018, the last reported sale price of our common stock was \$2.40 per share.

We may sell shares of our common stock directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any shares of our common stock with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such shares and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "[Risk Factors](#)" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is February 11, 2019.

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[Table of Contents](#)**ABOUT THIS PROSPECTUS**

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may sell shares of our common stock in one or more offerings up to a total aggregate offering price of \$150,000,000. This prospectus provides you with a general description of our common stock.

Each time we sell shares of our common stock under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before investing in our common stock.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF OUR COMMON STOCK UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

Neither we, nor any agent, underwriter or dealer has authorized any person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus prepared by or on behalf of us or to which we have referred you. This prospectus, any applicable supplement to this prospectus or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any shares of our common stock other than the registered shares to which they relate, nor do this prospectus, any applicable supplement to this prospectus or any related free writing prospectus constitute an offer to sell or the solicitation of an offer to buy shares of our common stock in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

You should not assume that the information contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any applicable prospectus supplement or any related free writing prospectus is delivered, or shares of our common stock are sold, on a later date.

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 selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our common stock discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless the context requires otherwise, references in this prospectus to “we,” “us” and “our” refer to HTG Molecular Diagnostics, Inc.

Company Overview

We are a commercial stage company that develops and markets products and services based on a proprietary technology that facilitates the routine use of targeted molecular profiling using a small amount of biological sample. Molecular profiling is the collection of information about multiple molecular targets, such as DNA and RNA, also called biomarkers, in a biological sample. Molecular profiling information has many important applications, from basic research to molecular diagnostics in personalized medicine. Our technology can be used throughout that range of applications, which is just one of its many benefits. Our focus is on clinical applications. Our primary customers include biopharmaceutical companies, academic research centers and molecular testing laboratories.

Corporate Information

We were originally incorporated in Arizona in October 1997 as “High Throughput Genomics, Inc.” In December 2000, we reincorporated in Delaware as “HTG, Inc.” and in March 2011 we changed our name to “HTG Molecular Diagnostics, Inc.” Our principal executive offices are located at 3430 E. Global Loop, Tucson, AZ 85706, and our telephone number is (877) 289-2615. Our corporate website address is www.htgmolecular.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

This prospectus contains references to our trademarks, including VERI/O, HTG Edge and HTG EdgeSeq, and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies’ trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

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

We are an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and therefore we may take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until

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we are no longer an “emerging growth company.” We will remain an emerging growth company until the earliest of (1) December 31, 2020, (2) the last day of the fiscal year (a) in which we have total annual gross revenue of at least \$1.07 billion, or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeded \$700.0 million as of the prior June 30th, and (3) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period. References herein to “emerging growth company” have the meaning associated with that term in the JOBS Act.

We are also a “smaller reporting company” as defined in the Securities Exchange Act of 1934, or the Exchange Act, and have elected to take advantage of certain of the scaled disclosures available to smaller reporting companies.

[Table of Contents](#)**RISK FACTORS**

Investing in our common stock involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as updated by our quarterly, annual and other reports and documents that are incorporated by reference into this prospectus, before deciding whether to purchase any common stock being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our common stock, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

[Table of Contents](#)**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as “believe,” “expect,” “hope,” “may,” “will,” “plan,” “intend,” “estimate,” “could,” “should,” “would,” “continue,” “seek,” “pro forma,” or “anticipate,” or other similar words (including their use in the negative), or by discussions of future matters such as our ability to successfully commercialize our products and services, the development of new products, technology enhancements, possible collaborations, possible changes in legislation and other statements that are not historical. In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date the statement is made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements. Forward-looking statements include but are not limited to statements under the captions “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and in other sections incorporated by reference from our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, as well as our other filings with the SEC. You should be aware that the occurrence of any of the events discussed under the heading “Risk Factors” in any applicable prospectus supplement and any documents incorporated by reference herein or therein could substantially harm our business, operating results and financial condition and that if any of these events occurs, it could adversely affect the value of an investment in our common stock.

The cautionary statements made in this prospectus are intended to be applicable to all related forward-looking statements wherever they may appear in this prospectus or in any prospectus supplement or any documents incorporated by reference herein or therein. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future.

[Table of Contents](#)**USE OF PROCEEDS**

We will retain broad discretion over the use of the net proceeds from the sale of our common stock offered hereby. Except as described in any prospectus supplement or any related free writing prospectus that we may authorize to be provided to you, we currently intend to use the net proceeds from the sale of our common stock offered hereby for working capital and general corporate purposes, which may include capital expenditures, debt repayment, and research and development, sales and marketing and general and administrative expenses. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own, although we have no current plans, commitments or agreements with respect to any such acquisitions or investments as of the date of this prospectus. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any common stock sold pursuant to the prospectus supplement or free writing prospectus. Pending their use, we currently expect to invest the net proceeds from any offering under this prospectus in U.S. Treasuries, U.S. government sponsored agency obligations and/or high credit quality corporate debt securities which have an average credit rating of AA.

[Table of Contents](#)**DESCRIPTION OF CAPITAL STOCK**

Our amended and restated certificate of incorporation authorizes us to issue up to 200,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share. All of our authorized preferred stock is undesignated. The following is a summary of the rights of our common stock and preferred stock and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws and of the Delaware General Corporation Law. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the Delaware General Corporation Law.

Common Stock***Voting***

Our common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

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

Liquidation

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

Rights and Preferences

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

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock.

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Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Bylaws and Delaware Law

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law, or Section 203. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years following the time that such stockholder became an interested stockholder, unless:

- prior to such time the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change of control);

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- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that directors may only be removed, subject to any limitation imposed by law, by the holders of at least 66 2/3% of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders, (3) any action asserting a claim against the us arising pursuant to any provision of the Delaware General Corporation Law or our certificate of incorporation or bylaws, or (4) any action asserting a claim against us governed by the internal affairs doctrine; and
- provide that special meetings of our stockholders may be called only by the chairman of the board, our Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least 66 2/3% of our then outstanding common stock.

Nasdaq Capital Market Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "HTGM."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Avenue, Brooklyn, New York 11219.

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PLAN OF DISTRIBUTION

We may sell shares of our common stock from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell shares of our common stock to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute shares of our common stock from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell shares of our common stock covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of The Nasdaq Capital Market or any other stock exchange or quotation or trading service on which our common stock may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker other than on The Nasdaq Capital Market or such other stock exchanges or quotation or trading services.

Such at-the-market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of our common stock, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the common stock and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional common stock from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which our common stock may be listed.

Only underwriters named in the prospectus supplement are underwriters of the common stock offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the common stock for their own account and may resell the common stock from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the common stock will be subject to the conditions set forth in the applicable underwriting agreement. We may offer our common stock to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions unless otherwise specified in the prospectus supplement, the underwriters will be obligated to purchase all of the common stock offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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We may sell our common stock directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of our common stock, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to any offering pursuant to this prospectus, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

Any underwriter may engage in over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. This short sales position may involve either “covered” short sales or “naked” short sales. Covered short sales are short sales made in an amount not greater than the underwriters’ over-allotment option to purchase additional shares in the offering. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares of our common stock in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in the offering. Stabilizing transactions permit bids to purchase the underlying security for the purpose of fixing the price of the security so long as the stabilizing bids do not exceed a specified maximum. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions.

Any underwriters who are qualified market makers on The Nasdaq Capital Market, or any other stock exchange or which our common stock may be listed at the time of sale, may engage in passive market making transactions in our common stock on The Nasdaq Capital Market or such other stock exchange in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the shares of our common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for our common stock; if all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded.

Similar to other purchase transactions, an underwriter’s purchase to cover the syndicate short sales or to stabilize the market price of our common stock may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the common stock if it discourages resales of the shares.

Neither we nor the underwriters makes any representation or prediction as to the effect that the transactions described above may have on the price of the common stock offered by this prospectus. If such transactions are commenced, they may be discontinued without notice at any time.

[Table of Contents](#)**LEGAL MATTERS**

Unless otherwise indicated in the applicable prospectus supplement, certain legal matters in connection with the offering and the validity of our common stock offered by this prospectus, and any supplement thereto, will be passed upon by Cooley LLP.

EXPERTS

The financial statements as of December 31, 2017 and 2016 and for the years then ended incorporated by reference in this prospectus, have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the common stock we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of our common stock in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the common stock offered by this prospectus.

Because we are currently subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>.

We maintain a website at www.htgmolecular.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

[Table of Contents](#)**INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

The SEC allows us to “incorporate by reference” information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports or portions thereof 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 and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) 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 is a part and prior to effectiveness of the registration statement, and (ii) after the effectiveness of the registration statement but prior to the termination of the offering of the securities covered by this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2017, filed with the SEC on March 23, 2018;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 from our definitive proxy statement on [Schedule 14A](#) (other than information furnished rather than filed) filed with the SEC on July 3, 2018;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended [March 31, 2018](#), [June 30, 2018](#) and [September 30, 2018](#), filed with the SEC on May 10, 2018, August 9, 2018 and November 8, 2018, respectively;
- our Current Reports on Form 8-K, filed with the SEC on [January 4, 2018](#), [January 16, 2018](#), [January 19, 2018](#), [January 31, 2018](#), [February 27, 2018](#), [March 27, 2018](#), [April 4, 2018](#), [April 16, 2018](#), [May 21, 2018](#), [August 20, 2018](#), [August 21, 2018](#) and [September 27, 2018](#); and
- 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 April 30, 2015, including any amendments or reports filed for the purpose of updating such description.

You can request a copy of these filings, at no cost, by writing us at 3430 E. Global Loop, Tucson, Arizona, 85706 Attn: Corporate Secretary, or telephoning us at (877) 289-2615.

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

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25,476,989 Shares



Common Stock

PROSPECTUS SUPPLEMENT

Sole Book-Running Manager

Cantor

September 20, 2019
