

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Amount of Registration Fee(2)
Common Stock, par value \$0.0001 per share	9,200,000	\$40.00	\$368,000,000	\$47,767

- (1) Includes 1,200,000 shares of common stock that may be purchased by the underwriters from us pursuant to their option to purchase additional shares.
- (2) Calculated in accordance with Rules 456(b) and 457(r) under the Securities Act of 1933, as amended. This “Calculation of Registration Fee” table shall be deemed to update the “Calculation of Registration Fee” table in the registrant’s Registration Statement on Form S-3ASR (File No. 333-239854).

Prospectus Supplement
(To prospectus dated July 14, 2020)

8,000,000 Shares



Common Stock

We are offering 6,000,000 shares of our common stock and the selling shareholder identified in this prospectus supplement is offering 2,000,000 shares of our common stock. We will not receive any of the proceeds from the shares of our common stock sold by the selling shareholder.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "ADPT." On July 15, 2020, the last reported sale price of our common stock was \$43.59 per share.

Investing in our common stock involves a high degree of risk. See "[Risk Factors](#)" on page S-20 of this prospectus supplement, as well as in the documents incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus, to read more about factors you should consider before buying our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body 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	\$ 40.00	\$320,000,000
Underwriting discount ⁽¹⁾	\$ 2.20	\$ 17,600,000
Proceeds, before expenses, to us	\$ 37.80	\$226,800,000
Proceeds, before expenses, to the selling shareholder	\$ 37.80	\$ 75,600,000

(1) See the "[Underwriting](#)" section beginning on page S-30 of this prospectus supplement for additional information regarding underwriter compensation.

We have granted the underwriters an option to purchase up to 1,200,000 additional shares of our common stock at the public offering price less the underwriting discount.

The underwriters expect to deliver the shares of common stock against payment in New York, New York on or about July 20, 2020.

J.P. Morgan
Cowen

Goldman Sachs & Co. LLC
Guggenheim Securities

BofA Securities
William Blair

Prospectus Supplement dated July 15, 2020.

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PROSPECTUS

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ABOUT THIS PROSPECTUS SUPPLEMENT

On July 14, 2020, we, as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended, filed with the Securities and Exchange Commission (“SEC”) an automatic registration statement on Form S-3, which registration statement became automatically effective upon filing. Under this shelf registration process, we may, from time to time, sell common stock and other securities, of which this offering is a part.

This document is part of the automatic shelf registration statement that we filed with the SEC and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer to the “prospectus,” we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. Neither we nor the selling shareholder nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus supplement or in any free writing prospectuses we have prepared. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference into each include important information about us, the selling shareholder, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the sections of this prospectus supplement entitled “*Where You Can Find More Information*” and “*Incorporation by Reference*” and in the sections of the accompanying prospectus entitled “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*.”

We further note that the representations, warranties and covenants made by us and the selling shareholder in any agreement that is filed as an exhibit to any document that is incorporated by reference herein 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.

Neither we nor the selling shareholder take responsibility for, and can provide no assurances as to the reliability of, any information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. Neither we nor the selling shareholder are offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

Unless otherwise stated, when used in this prospectus supplement or the accompanying prospectus, the terms “Adaptive,” “we,” “our” and “us” refer to Adaptive Biotechnologies Corporation, a Washington corporation, unless otherwise specified or the context otherwise requires. “Adaptive” and all product candidate names are our common law trademarks. This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein contains additional trade names, trademarks and service

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marks of other companies, which are the property of their respective owners. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement or the accompanying prospectus in that jurisdiction. Persons who come into possession of this prospectus supplement or the accompanying prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement or the accompanying prospectus applicable to that jurisdiction.

WHERE YOU CAN FIND MORE INFORMATION

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 www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.adaptivebiotech.com. Our website and the information contained therein or connected thereto are not a part of this prospectus supplement or the accompanying prospectus or the registration statement of which they form a part, and are not incorporated by reference into this prospectus supplement or the accompanying prospectus or the registration statement of which they form a part.

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

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus supplement and the accompanying prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement, the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below (File No. 0001478320) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (in each case, other than those documents or the portions of those documents not deemed to be filed), between the date of this prospectus supplement and the termination of this offering:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on [February 26, 2020](#);
- Quarterly Report on Form 10-Q for the three months ended March 31, 2020, filed with the SEC on [May 12, 2020](#);
- Current Reports on Form 8-K, filed with the SEC on [January 8, 2020](#), [January 24, 2020](#) (as amended on [January 27, 2020](#)), [February 18, 2020](#), [February 26, 2020](#), [March 20, 2020](#), [May 5, 2020](#), [May 12, 2020](#), [June 16, 2020](#) and [June 26, 2020](#);
- The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2019 from our Definitive Proxy Statement on Schedule 14A, filed on [April 24, 2020](#); and
- The description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on [June 26, 2019](#), and any amendment or report filed with the SEC for the purpose of updating the description.

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You may request a copy of these filings, at no cost, by contacting us, either orally or in writing, at the following:

Adaptive Biotechnologies Corporation
1551 Eastlake Avenue East, Suite 200
Seattle, WA 98102
(206) 659-0067
Attention: Corporate Secretary

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein contain express or implied forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus supplement include, but are not limited to, those described under "Risk Factors" and include, among other things:

- the success of our significant investments in our continued research and development of new products and services;
- the success of developing, commercializing and achieving commercial market acceptance of clonoSEQ, immunoSEQ Dx, our TCR-Antigen Map, TCR-based cellular therapies and additional products and services beyond our current portfolio;
- the potential for our identified research priorities to advance our proprietary immune medicine platform or our future products and services;
- the success, cost and timing of our research and development activities, preclinical and clinical studies and, in certain instances, clinical trials and clinical validations;
- the potential benefits of collaborations, our ability to enter into collaborations or arrangements, and our ability to attract collaborators with development, manufacturing, regulatory and commercialization expertise;
- the ability and willingness of our collaborators to continue development, manufacturing, distribution and commercialization activities relating to our jointly developed products and services;
- our ability to identify research priorities and apply a risk-mitigated strategy to efficiently discover and develop products and services;
- our ability to leverage our immune medicine platform to discover, develop and commercialize additional products and services, including those related to COVID-19;
- our ability to obtain and maintain regulatory approval of our products and services;
- our ability, and that of our collaborators, to commercialize our products and services;
- our ability to obtain equipment and materials (including reagents or other materials that may also require additional internal validation) from our suppliers, and in some cases single suppliers;
- our ability to generate revenue and obtain funding for our operations, including funding necessary to complete further development of our current and future products and services, and if successful, commercialization;
- the size and growth potential of the markets for our products and services, and our ability to serve those markets, either alone or in combination with others;
- the rate and degree of market acceptance of our products and services;
- our financial performance;
- the pricing and reimbursement of our products and services following approval where required;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our immune medicine platform, products, services and related technologies and the direction of such protection;
- regulatory developments in the United States and foreign countries;

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- the success of competing products or services that are or may become available;
- developments relating to our competitors and our industry;
- our ability to attract and retain key scientific or management personnel;
- the impact of laws and regulations;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- the use of proceeds from this offering; and
- the potential adverse effect on our business, operations and plans or timelines (including those plans and timelines related to expansion initiatives and clinical development) resulting from a health epidemic or pandemic, including the recent COVID-19 pandemic.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, particularly in the “*Risk Factors*” section, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make or enter into.

You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, as well as the documents that we have filed as exhibits to the registration statement of which this prospectus supplement forms a part, completely and with the understanding that our actual future results, performance or achievements may be materially different from what we expect. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein contains industry, market and competitive position data that are based on industry publications and studies conducted by third parties as well as our own internal estimates and research. These industry publications and third-party studies generally state that the information that they contain has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe these industry publications and third-party research, surveys and studies are reliable.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents incorporated by reference herein or therein. This summary does not contain all the information that you should consider before investing in our common stock. Before making an investment decision, you should read this entire prospectus supplement and the accompanying prospectus carefully, especially the “Risk Factors” and our historical financial statements and related notes and the other information incorporated by reference into this prospectus supplement and the accompanying prospectus. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Overview

We are advancing the field of immune-driven medicine by harnessing the inherent biology of the adaptive immune system to transform the diagnosis and treatment of disease. We believe the adaptive immune system is nature’s most finely tuned diagnostic and therapeutic for most diseases, but the inability to decode it has prevented the medical community from fully leveraging its capabilities. Our immune medicine platform applies our proprietary technologies to read the diverse genetic code of a patient’s immune system and understand precisely how it detects and treats disease in that patient. We capture these insights in our dynamic clinical immunomics database, which is underpinned by computational biology and machine learning, and use them to develop and commercialize clinical products and services that we are tailoring to each individual patient.

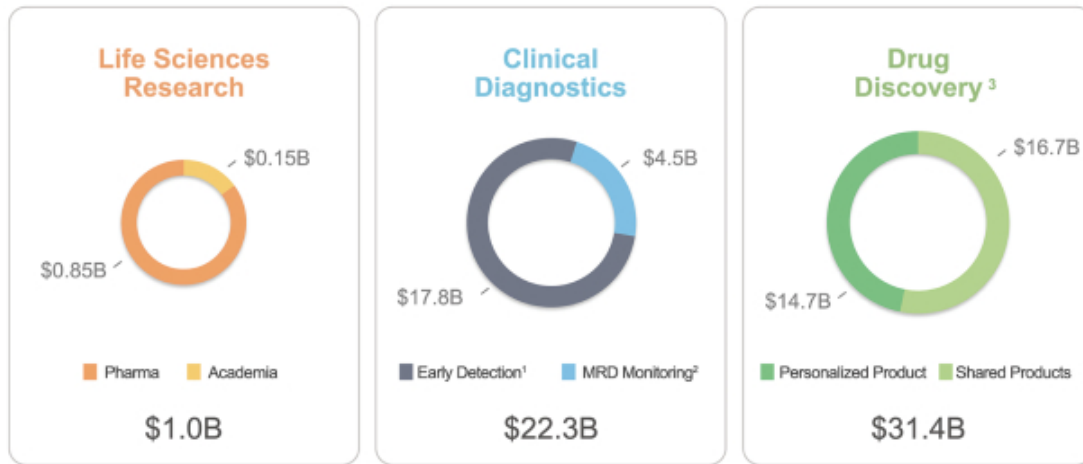
We have two commercial products and services and a robust pipeline of clinical products and services that we are designing to diagnose, monitor and enable the treatment of diseases such as cancer, autoimmune conditions and infectious diseases. Since our inception in 2009, we have characterized over 47 billion immune receptors, established partnerships and commercial relationships with over 165 biopharmaceutical companies and launched two product lines. Our goal is to understand the adaptive immune system and translate it into new clinical products with unprecedented scale, precision and speed.

Our immune medicine platform is the foundation for our expanding suite of clinical products and services. The cornerstone of our platform and core immunosequencing product, immunoSEQ, serves as our underlying research and development engine and generates revenue from academic and biopharmaceutical customers. Our first clinical diagnostic product, clonoSEQ, is the first test authorized by the U.S. Food and Drug Administration (“FDA”) for the detection and monitoring of minimal residual disease (“MRD”) in patients with select blood cancers. Leveraging our collaboration with Microsoft Corporation (“Microsoft”), we are also developing a diagnostic product, immunoSEQ Dx, that may enable early detection of many diseases from a single blood test. We are currently running our first clinical validation study in acute Lyme disease following proof of concept in 2019. We have recently extended our collaboration with Microsoft to decode the adaptive immune response and pursue a diagnostic signal for COVID-19. Our first therapeutic product candidates, being developed under our collaboration agreement with Genentech, Inc. (“Genentech”), leverage our platform to identify specific immune cells to develop into cellular therapies in oncology. We believe this approach has the potential to be applicable to patients across a wide range of cancers. We are also identifying candidate antibodies for therapeutic use in neutralizing COVID-19, which Amgen, Inc. (“Amgen”) has an option to develop and commercialize. Our platform is emerging as a clinical product development engine for both the diagnosis and treatment of disease.

Immune-driven medicine is one of the largest global addressable markets in healthcare. We estimate the potential market opportunity for our current portfolio to be greater than \$54 billion, including research products, clinical diagnostics and cellular therapies. We believe this market opportunity will grow over time as our pipeline of products and services continues to expand, and as clinicians increasingly incorporate the immune system in the diagnosis and treatment of disease. We use multiple sources and assumptions to estimate the total addressable

market for immune-driven medicine. While we believe them to be reasonable, these sources and assumptions may be incorrect or subject to change due to any number of factors. In particular, our drug discovery initiatives are still in the early stages of development, which may make our assumptions and estimates more uncertain. Despite the novelty of this area, we believe we are uniquely positioned to develop and commercialize a pipeline of immune-driven diagnostic and therapeutic products across multiple disease states by leveraging the cumulative learning from our immune medicine platform.

Our Addressable Market: \$54.7B

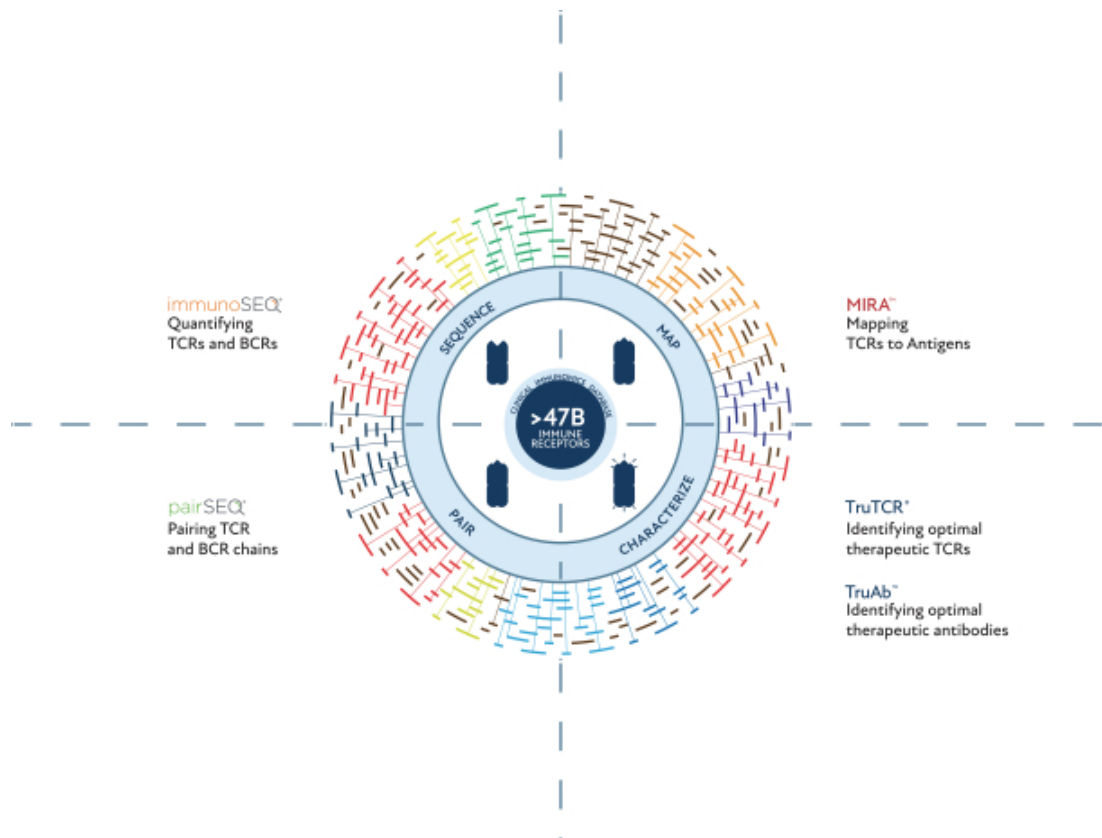


- 1 Early detection includes ovarian cancer testing for high-risk women who are BRCA-mutation positive or who have been diagnosed or treated for breast cancer, celiac disease testing for people who have undiagnosed gastrointestinal symptoms or who are first-degree relatives of people with a confirmed celiac diagnosis, and testing for acute and chronic Lyme disease. Addressable market estimate does not include COVID-19 testing.
- 2 MRD monitoring in acute lymphoblastic leukemia (“ALL”), multiple myeloma (“MM”), chronic lymphocytic leukemia (“CLL”), and non-Hodgkin’s Lymphoma (“NHL”) globally. Assumes 2-4 MRD tests per treatment cycle depending on indication and geography.
- 3 Drug discovery includes product candidates in development as part of our worldwide collaboration and license agreement with Genentech and does not include COVID-19 product candidates in development.

Our Immune Medicine Platform

The adaptive immune system is comprised of specialized cells, called T cells and B cells, which hold the instructions for diagnosing and treating most diseases. These instructions enable these cells to identify, bind and destroy pathogens or human cells presenting foreign signals of disease (“antigens”) using receptors on their cell surface. Unlike all other genes in the human genome, the genetic sequences of T-cell receptors (“TCRs”) and B-cell receptors (“BCRs”) rearrange over time, creating massive genetic diversity. The resulting diversity of the adaptive immune repertoire, which consists of over 100 million different genes in a healthy adult compared to approximately 30,000 genes in the static human genome, gives the immune system the ability to detect and respond to millions of different antigens associated with human disease. A platform that fully reveals the enormous diversity and scale of the immune system to develop clinical products must be able to reliably and repeatedly measure the relative frequency of each disease-specific immune cell, even those present in blood at

only 1 out of 1,000,000 cells. While it is extremely difficult to accurately decipher this massive genetic code, this is what we pioneered and what drives our ability to discover and develop differentiated clinical products.



Our immune medicine platform performs the following key functions related to immune receptors:

- *Sequence.* immunoSEQ sequences single chains of “Y-shaped” TCRs or BCRs using next generation sequencing (“NGS”), enabling us to understand the quantity and diversity of T and B cells in a biological sample. This provides deep insights into individual and collective immune responses at a scale that is thousands of times greater than was previously possible.
- *Map.* MIRA (Multiplexed Identification of T-cell Receptor Antigen Specificity) maps millions of TCRs to thousands of clinically relevant antigens. Combined with immunoSEQ, MIRA elucidates what potential diseases a patient’s immune system has been exposed to or is actively fighting.
- *Pair.* pairSEQ builds on immunoSEQ by using a combinatorial strategy to accurately pair both chains of Y-shaped immune cell receptors at high-throughput. This is challenging to perform at scale using other methods, because the two chains of the Y-shaped receptors are located on different chromosomes. The ability to accurately pair both chains of the receptors in a sample enables us to reconstruct receptors for therapeutic purposes.
- *Characterize.* TruTCR characterizes binding, cytotoxicity and safety properties of antigen-specific, paired TCRs to identify a subset that is therapeutic-grade, enabling the discovery and development of optimal clinical candidates to be engineered into TCR-mediated cellular therapies. TruAB is our

high-throughput antibody discovery process that includes the sequencing, pairing, characterization and selection of potent, naturally occurring, full length antibodies for therapeutic or prophylactic development.

The massive amount of data generated by our immune medicine platform is stored in our dynamic clinical immunomics database of over 73 billion immune receptors, of which we have data rights to over 47 billion. We believe the application of machine learning, supported by our collaboration with Microsoft, has the potential to exponentially accelerate our ability to derive novel insights from this database and use them to inform our robust clinical product development efforts.

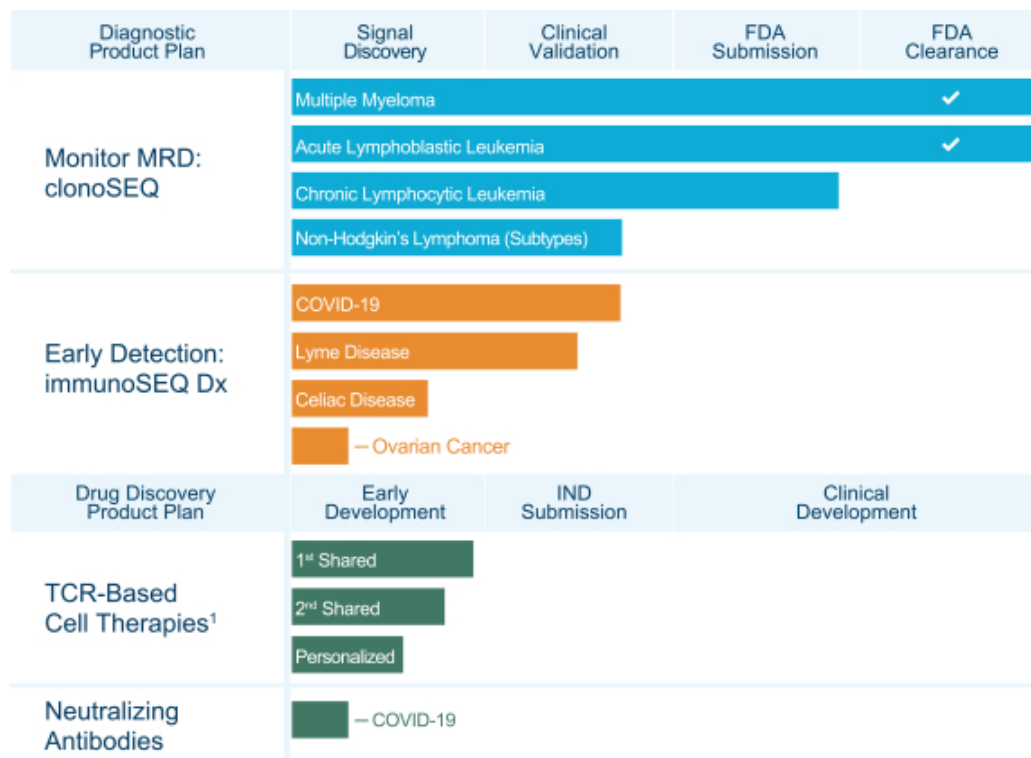
Our Current Products and Pipeline

Our current portfolio includes commercial products and services in life sciences research and clinical diagnostics, as well as products and services under development in both clinical diagnostics and drug discovery.

Life Sciences Research. Our immunoSEQ research service and kit are used to answer research questions that inform current and future clinical trials and to discover new prognostic and diagnostic signals. Our technology has been used for research purposes by over 2,400 academic researchers and more than 165 biopharmaceutical companies and incorporated into over 600 clinical trials since our inception in 2009. In the first quarter of 2020, we launched a next generation, sample-type agnostic research use only kit, which we are distributing globally. We are pursuing an analytically validated and improved version of immunoSEQ which would allow research results to be directly translated to clinical diagnostic applications.

We also use immunoSEQ for our own internal clinical product development efforts as the foundational technology for our clinical diagnostic and therapeutic product pipeline.

Our Clinical Portfolio and Pipeline



¹ Product candidates in development as part of our worldwide collaboration and license agreement with Genentech. The “1st Shared” and “2nd Shared” product candidates refer to the two lead clinical product candidates selected from our library of TCRs that target cancer antigens present in many cancer patients. Genentech will determine the timing of discussions with, and submissions to, the FDA.

Clinical Diagnostics. Our clonoSEQ diagnostic test detects and monitors the remaining number of cancer cells that are present in a patient’s body during and after treatment, known as MRD. In September 2018, clonoSEQ was granted marketing authorization from the FDA under the *de novo* process for patients with MM and B cell ALL to monitor their MRD from bone marrow samples. clonoSEQ is also available for use in other lymphoid cancers as a laboratory developed test. In 2019, clonoSEQ received Medicare coverage aligned with the FDA label and National Comprehensive Cancer Network guidelines for longitudinal monitoring in MM and ALL, and coverage from five national private payors and several regional plans, representing over 200 million covered lives to date. Most recently, Medicare coverage has also been extended to include patients with CLL from blood samples. clonoSEQ testing has been ordered by clinicians for more than 12,300 patients and used by more than 40 biopharmaceutical companies in over 190 clinical trials, including pharmaceutical sponsored and investigator led clinical trials. We continue to deepen our commercial investment to expand clinical adoption of clonoSEQ, which we believe has broad applicability across all lymphoid malignancies. In December 2019, we submitted a 510(k) premarket notification for CLL from blood samples and are actively validating the test for patients with NHL disease types. Importantly, we are validating the use of clonoSEQ to monitor MRD in patients with ALL and MM also from blood samples, which is less invasive than bone marrow samples, and may

facilitate more frequent monitoring and broader physician adoption. Our regulatory path for each additional indication will be determined based on prevailing and future market needs and dynamics as well as applicable law.

Leveraging Microsoft’s machine learning capabilities to create a map of the interaction between the immune system and disease (“TCR-Antigen Map”), we are developing a diagnostic product, immunoSEQ Dx, that may enable early and more accurate detection of many diseases from a single blood test. Initially, we are validating testing for a set of discrete diseases for which there is a significant unmet medical need for better diagnostic testing and early intervention, and where antigen specificity is well-known, such as certain prevalent cancer types, infectious diseases and autoimmune disorders. In the third quarter of 2019, we established proof of concept in acute Lyme disease from two independent, retrospective cohorts of over 200 patients. In the second quarter of 2020, we confirmed another clinical signal for the detection of the virus that causes COVID-19, called SARS-CoV-2. We are actively exploring immunoSEQ Dx’s ability to detect the TCR response to the virus. We believe that quantifying virus-specific T cells may provide important diagnostic advantages because T cells appear earlier than antibodies and seem to persist longer. This may enable new diagnostic applications and inform our ability to assess immunity and/or response to vaccines or other drugs in development.

To generate data, we initiated the ImmuneCODE program to collect, analyze, and publicize data about the TCRs specific to SARS-CoV-2. ImmuneCODE data is being generated from a variety of sources, including our own prospective 1,000 patient study called ImmuneRACE to collect blood samples from people who have been exposed, are actively fighting or have recently recovered from COVID-19. Approximately 4,000 additional samples are being collected from participating institutions around the world that are interested in contributing to this massive effort. We are making all of the sequencing data publicly available in our ImmuneCODE database where researchers can see a growing body of T-cells that are specific for SARS-CoV-2. The database was launched on June 11, 2020 and will be periodically updated as our efforts to map the immune response to the virus continue.

To date, we have sequenced samples from approximately 900 patients from the ImmuneCODE program. Additionally, we are using the mapping capabilities of our platform as well as our database of thousands of negative controls with a goal of honing a TCR signature that is diagnostic of the COVID-19 virus. To date, we have confirmed approximately 1,000 TCRs that are specific for SARS-CoV-2.

Recent publications suggest that there are certain time periods in which antibodies do not yet appear, are cross-reactive to other coronaviruses, and/or do not persist longer than a few weeks after infection. Our preliminary analyses suggest that T-cell response may play an important role in understanding immunity to COVID-19. As more samples are added from our ImmuneCODE efforts, we expect to be able to continually improve the sensitivity and specificity of this TCR signature across human leukocyte antigen types for multiple races and ethnicities.

Our progress in Lyme and COVID-19 has solidified our initial commercial focus for immunoSEQ Dx in infectious diseases. We also continue to progress toward identifying signals for other disease states, following our R&D prioritization funnel that scores diseases based on market attractiveness, feasibility, and product fit. Some of the diseases in the later phases of the R&D funnel include celiac disease and ovarian cancer, among others.

We believe we are uniquely positioned to rapidly identify signals for early and accurate detection across many disease states simultaneously because our immune medicine platform works with retrospective sample sets and uses machine learning and computational statistics to continuously improve our detection and accuracy. Data generated from multiple sources, including retrospective patient cohorts, Adaptive-sponsored trials and machine

learning, applied to our clinical immunomics database, will all be used in ongoing discussions with the FDA to demonstrate the concept and potential of immunoSEQ Dx. These discussions are currently under the Emergency Use Authorization pathway specific to COVID-19, and we are also working towards a planned submission for Lyme disease at the end of 2020. We will balance commercial needs and clinical data maturity to select the regulatory path best suited for each diagnostic offering.

Drug Discovery. Our immune medicine platform allows us to characterize immune receptors for therapeutic use with unprecedented scale and speed. Our TruTCR process characterizes TCRs against shared antigens for use in the development of therapeutics. In December 2018, we entered into an exclusive collaboration with Genentech to leverage this capability for the development of cellular therapies in oncology. We are pursuing two product development pathways for novel T-cell immunotherapies in which Genentech intends to use TCRs screened by our immune medicine platform to engineer and manufacture cellular medicines:

- *Shared Products.* The shared products will use “off-the-shelf” TCRs identified against cancer antigens shared among patients (“Shared Products”). We have provided to Genentech the IND enabling data package for the first selected shared cancer antigen. Genentech plans to engage the FDA in a pre-IND meeting in the fourth quarter of 2020 and, despite external factors related to COVID-19, the IND filing is expected in early 2021. First in human studies are expected to commence in the first half of 2021, following IND acceptance. Regulatory milestone payments will be due to Adaptive upon each of IND acceptance and first patient enrolled. In addition, the joint research committee has already commenced work on the second shared antigen target.
- *Personalized Product.* The personalized product will use patient-specific TCRs identified by real-time screening of TCRs against cancer antigens in each patient (“Personalized Product”). We recently began work to expand our lab space in South San Francisco to build a prototype of the Personalized Product, and we expect the lab will be online in the first half of 2021. We believe this investment would position us to potentially pursue additional opportunities outside of this collaboration, including cellular therapy in other disease states and cancer vaccines.

Our TruAB process characterizes antibody-secreted BCRs for therapeutic use and was selected by Amgen for the discovery and development of potential antibody therapies for COVID-19. In April 2020, we entered into a nonbinding memorandum of understanding with Amgen to leverage our platform to screen for antibody therapies that may neutralize the virus that causes COVID-19, which has been superseded by an option for Amgen to develop and commercialize any neutralizing antibodies we discover. We expect to complete our discovery of candidate neutralizing antibodies in the second half of 2020. We believe these efforts will position us to potentially pursue additional antibody discovery opportunities outside of this relationship in a variety of disease states.

Non-Core Opportunity. We have discovered a potential new sequencing technology that is ancillary to our core business, and a special committee of our Board of Directors is considering how to develop this early-stage technology independently of Adaptive, with separate funding and management. We may permit certain of our directors, executive officers and affiliates to passively invest in this opportunity on arms-length terms supported by independent valuation analysis, provided we are satisfied that no executive officer’s participation in the opportunity would impede his or her ongoing contractual obligations to devote best efforts and full business time, skill and attention to our core business.

Our Competitive Strengths

We aim to harness the inherent biology of the adaptive immune system to develop clinical products and services that improve human health by leveraging our core competitive strengths.

- *Our immune medicine platform is uniquely capable of supporting development of clinical products.* We have developed a platform that is capable of reading and translating the massive genetic diversity of the

adaptive immune system and its selective response to disease. Specifically, our platform *sequences* immune receptors and *maps* them to antigens for diagnostic applications, *pairs* receptor chains and *characterizes* antigen-specific, paired receptors to identify optimal clinical targets for therapeutic use. We believe we are the only company that can perform all of these functions at an unprecedented speed and scale to develop novel clinical diagnostic and therapeutic products.

- *Our clinical immunomics database provides a robust product development engine.* Our dynamic clinical immunomics database of over 47 billion immune receptors, now being annotated with antigens using machine learning, drives our ability to rapidly discover and develop potential diagnostic and therapeutic products. Our aim is to translate the natural capabilities of the immune system into the clinic by characterizing the millions of diverse unique receptors present in the blood of a patient. We believe that the speed with which we continue to grow our database, seeking to map billions of receptors to hundreds of thousands of clinically relevant antigens, will keep us at the top of the innovation curve. This is evidenced by the recent ImmuneCODE database launched in June 2020 to decode the immune response to COVID-19. In just three months, we have generated significant amounts of data to accurately map the T-cell response to SARS-CoV-2 across thousands of samples combined from organizations around the globe. Along with Microsoft, we have made these data publicly available to benefit research to drive solutions to the pandemic.
- *Clinical applicability spans diagnostic and therapeutic product potential.* Our ability to accumulate, synthesize and process billions of immunomic datapoints to generate multiple clinical diagnostic and therapeutic applications across disease areas provides optionality to our commercial pipeline. Each of our products also has broad applicability, enabling robust product lifecycle extensions.
- *Regulatory and reimbursement expertise will help inform future clinical product development.* Having successfully obtained FDA marketing authorization, and coverage for clonoSEQ from Medicare and five national private payors, we believe we have developed valuable core capabilities that will facilitate future product development through to regulatory approval and reimbursement. This capability will inform the development and regulatory approach of other clinical products, including our early and accurate detection tests.
- *Transformational collaborations with industry leaders validate our platform.* Our collaborations with industry-defining leaders such as Genentech, Microsoft and Amgen validate our unique approach to advancing the promise of immune-driven medicine. We will continue to seek opportunities to optimize our ever-growing clinical immunomics database to drive product development and commercial success and facilitate efficient use of capital.
- *Strong intellectual property protects our immune medicine platform and its applications.* We have filed over 400 patent applications, 314 of which have issued as of June 30, 2020, covering improvements in sequencing methods and new ways to leverage adaptive immune receptors for life sciences research, clinical diagnostic and drug discovery applications.

Our Strategy

Our focus is to leverage our immune medicine platform and competitive strengths to develop transformative clinical solutions accessible to patients around the world.

- *Advance the promise of immune-driven medicine.* We facilitate the development of the immune medicine field by providing a platform to drive the generation of immunomics data to facilitate a deeper understanding of, and biological discovery from, the adaptive immune system. We leverage the unique capability of our platform to translate a patient's immune system with the scale, precision and speed required to enable the development of personalized products, including clinical diagnostic tests for disease monitoring and early detection, as well as immune-based therapeutics.

- *Rapidly identify and advance new products, leveraging foundational technology.* Integrate proven chemistry into our clinical products in development, avoiding the need to re-engineer new products for every clinical application. We do this by serially identifying new diagnostic applications of immunoSEQ Dx for early and accurate detection of disease using retrospective datasets without requiring live cells from large cohorts of patients. This will become more apparent as we move from single disease-state diagnostic tests, to differentiated diagnostic panels, to a more broadly applicable blood test across disease states. We also leverage our foundational technology toward rapidly discovering and validating TCR and BCR candidates for therapeutic use.
- *Achieve economies of scale, leveraging same underlying platform technology.* As our platform expands into new indications across cancer, autoimmune conditions and infectious diseases, we believe we will benefit from economies of scale and drive margin improvement over time. Since the inherent properties of the adaptive immune system work similarly across most diseases, we expect our immune medicine platform will primarily utilize the same capital equipment, lab workflow and chemistries for our current and future products.
- *Entrench our products and services in clinical drug development with biopharmaceutical collaborators.* We intend to position Adaptive and our platform as a gold standard and partner of choice for the validation of potential immune-driven clinical discoveries in late-stage clinical trials. Since inception, our products and services have been used by more than 165 biopharmaceutical companies and incorporated into over 600 clinical trials, and clonoSEQ has proven to be the MRD test of choice for select registrational trials. To deepen our established position as a partner of choice, we provide end-to-end support, including hypothesis-driven trial design, extensive data analyses, parallel regulatory support, compliant data transfers and novel target screening. These synergistic relationships advance the development and adoption of our own clinical products and also inform drug development for our partners.
- *Drive the commercial adoption of accessible, reimbursed and regulated clinical products.* Expand distribution and drive usage of our products and services, including the possibility of developing clinical *in vitro* diagnostic kits. Leverage the commercial infrastructure built for clonoSEQ to submit clinical data for regulatory clearance of our products and services, expand current payor coverage and provide robust billing and patient access infrastructure for multiple clinical applications.
- *Maintain an entrepreneurial, scientifically rigorous, data-driven and inclusive corporate culture.* Fuel the promise and potential that our platform offers to help patients better manage their disease by translating insights from our world-class team, which includes 112 people with medical or doctoral degrees with expertise in biology, chemistry, bioinformatics, software, drug discovery, development and commercialization, into clinical products and services. As one key component of our commitment to investing for growth, we plan to continue to expand and develop our team to accelerate the promise of immune-driven medicine.

Risks Associated with Our Business

Our business is subject to a number of risks and uncertainties of which you should be aware before making an investment decision, including those highlighted in the “*Risk Factors*” section of this prospectus immediately following this prospectus summary. Among others, these risks relate to:

- our business could be adversely affected by the effects of health epidemics, including the recent COVID-19 pandemic, in regions where we or third parties on which we rely have significant laboratory operations, manufacturing facilities, concentrations of clinical trial sites or other business operations, and the pandemic could materially affect our operations, including at our headquarters in Seattle and in our offices in South San Francisco, as well as the business or operations of our manufacturers, contract research organizations or other third parties with whom we conduct business;

- our significant net losses since inception, expected net losses in the future and need for significant investments in products and services;
- our ability to leverage our immune medicine platform to discover, develop, commercialize and obtain regulatory clearance, authorization and approval for our products and services, particularly in light of the novelty of immune medicine and our methods;
- our ability to develop our TCR-Antigen Map and yield insights from it that are commercially viable;
- our collaboration with Genentech and ability to develop and commercialize cellular therapeutics, including our ability to achieve milestones and realize the intended benefits of the collaboration;
- our ability to leverage our immune medicine platform to discover, develop and commercialize additional products and services, including those related to COVID-19, may not be successful;
- our laboratory operations, including errors or defects in our products or services and our reliance on a limited number of suppliers, and in some cases single suppliers, for our equipment and materials, some of which include reagents or other materials that may also require additional internal validation prior to use;
- our limited experience with the development and commercialization of cellular therapeutics;
- market acceptance of our products and services, and our limited sales and marketing experience;
- our expected reliance on collaborators for development and clinical testing of therapeutic product candidates, which may fail at any time due to a number of possible unforeseen events;
- our ability to increase our capacity, manage the evolution of our products and services, stay current in our rapidly changing industry, expand our workforce and otherwise manage our growth;
- the loss of any member of our senior management team, or of the support of key opinion leaders;
- the extensive regulation of our industry, including reimbursement coverage decisions; and
- the validity of our patents, protection of our trade secrets and related intellectual property matters.

See the “*Risk Factors*” section of this prospectus for additional information about the risks we face.

Preliminary Financial Information for the Three Months Ended June 30, 2020

Our financial statements for the three months ended June 30, 2020 are not yet available. Accordingly, the information presented below reflects our preliminary estimates subject to the completion of our financial closing procedures. As a result, these preliminary estimates may differ from the actual results that will be reflected in our financial statements when they are completed and publicly disclosed. These preliminary estimates may change and those changes may be material.

Our expectations with respect to our preliminary estimates for the three months ended June 30, 2020 are based upon management estimates and are the responsibility of management. Our independent registered public accounting firm has not audited, reviewed or performed any procedures with respect to these preliminary results and, accordingly, does not express an opinion or any other form of assurance about them.

We estimate our total revenue for the three months ended June 30, 2020 will range from \$20.0 million to \$20.5 million. We estimate our research sequencing volume will be 4,185 sequences delivered in the three months ended June 30, 2020. We estimate our clinical sequencing volume will be 3,136 clinical tests delivered in the three months ended June 30, 2020. We estimate that our cash, cash equivalents and marketable securities as of June 30, 2020 was approximately \$628.0 million.

In addition, although we expect to experience an operating and net loss for the three months ended June 30, 2020, we are not able to provide an estimate of such results at the time of this prospectus. We expect our operating and net loss for the three months ended June 30, 2020 to increase compared to the three months ended June 30, 2019.

Implications of Being an Emerging Growth Company

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012. As such, we may take advantage of reduced disclosure and other requirements otherwise generally applicable to public companies, including:

- presenting only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced “Management’s Discussion and Analysis of Financial Condition and Results of Operations” disclosure in this prospectus;
- not being required to have our registered independent public accounting firm attest to management’s assessment of our internal control over financial reporting;
- presenting reduced disclosure about our executive compensation arrangements;
- not being required to hold non-binding advisory votes on executive compensation or golden parachute arrangements; and
- extended transition periods for complying with new or revised accounting standards.

We have taken advantage of some of these reduced disclosure and other requirements. Accordingly, the information we provide to you may be different than you might get from other public companies in which you hold securities.

We will remain an emerging growth company until December 31, 2020, when we will be deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act based on the market value of our common stock held by non-affiliates exceeding \$700.0 million as of the last business day of our quarter ended June 30, 2020.

Corporate Information

We were incorporated in the State of Washington in September 2009 under the name Adaptive TCR Corporation. In December 2011, we changed our name to Adaptive Biotechnologies Corporation. In January 2015, we acquired Sequentia, Inc., a San Francisco, California-based company that was also developing an NGS test for MRD. Our principal executive offices are located at 1551 Eastlake Avenue East, Suite 200, Seattle, Washington 98102, and our telephone number is (206) 659-0067. We maintain a website at www.adaptivebiotech.com. Information contained on or that can be accessed through our website is neither a part of, nor incorporated by reference into, this prospectus, and you should not consider information on our website to be part of this prospectus.

We own various U.S. federal trademarks, applications and unregistered trademarks, including our company name, product and service names and other trade or service marks. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

THE OFFERING

Common stock offered by us	6,000,000 shares of common stock
Common stock offered by the selling shareholder	2,000,000 shares of common stock
Common stock outstanding following the offering	132,621,829 shares of common stock (or 133,821,829 shares if the underwriters exercise their option to purchase additional shares of common stock in full)
Underwriter's option to purchase additional shares of common stock	We have granted the underwriters an option to purchase up to an additional 1,200,000 shares of common stock at the public offering price less the underwriting discount. The underwriters can exercise this option at any time within 30 days from the date of this prospectus supplement.
Use of proceeds	<p>We expect to receive net proceeds to us from this offering of approximately \$226.4 million (or approximately \$271.8 million if the underwriters exercise their option to purchase additional shares in full) after deducting underwriting discounts and estimated net offering expenses payable by us. We intend to use the net proceeds to us from this offering to accelerate our investments in our TCR-Antigen Map activities, scale our commercial and marketing activities associated with our immunoSEQ Dx clinical products and services, and support continued research and development for our drug discovery initiatives. A portion of the net proceeds may also be used to scale our laboratory operations, capacity to support our commercial growth plans and for working capital and other general corporate purposes. See the "Use of Proceeds" section of this prospectus supplement.</p> <p>We will not receive any proceeds from the sale of shares of common stock by the selling shareholder in this offering.</p>
Risk factors	Investing in our common stock involves a high degree of risk. See the "Risk Factors" section of this prospectus supplement and other information included or incorporated by reference into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our securities.
Nasdaq Global Select Market Symbol	"ADPT"

The number of shares of common stock to be outstanding after this offering is based on 126,621,829 shares of common stock issued and outstanding as of March 31, 2020, and excludes:

- 56,875 shares of common stock issuable upon the exercise of a warrant outstanding as of March 31, 2020, with an exercise price of \$2.64 per share;
- 17,489,954 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2020, issued under our Sequentia, Inc. 2008 Stock Plan (“Sequentia Plan”), our 2009 Equity Incentive Plan (“2009 Plan”) and our 2019 Equity Incentive Plan (“2019 Plan”), with a weighted-average exercise price of \$9.44 per share;
- 2,250 shares of common stock issuable upon the vesting of restricted stock units outstanding as of March 31, 2020 under our 2019 Plan, with a weighted-average grant date fair value per share of \$41.63;
- 314,339 shares of common stock issuable upon the exercise of stock options issued after March 31, 2020 (which takes into account terminations after March 31, 2020), under our 2019 Plan, with a weighted-average exercise price of \$32.86 per share;
- 50,000 shares of common stock issuable upon the vesting of restricted stock units issued after March 31, 2020, under our 2019 Plan, with a weighted-average grant date fair value per share of \$28.10;
- 19,433,424 shares of common stock available for future issuance as of March 31, 2020, under our 2019 Plan; and
- 2,804,298 shares of common stock available for future issuance as of March 31, 2020, under our 2019 Employee Stock Purchase Plan (“ESPP”).

Unless otherwise indicated, all information in this prospectus supplement reflects or assumes the following:

- no exercise by the underwriters of their option to purchase additional shares of common stock from us in this offering; and
- no exercise or termination of outstanding options or the outstanding warrant and no vesting of outstanding restricted stock units, in each case after March 31, 2020.

RISK FACTORS

Investing in our common stock involves a high degree of risk. Investors should carefully consider the risks described below and under the heading “Risk Factors” in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q as well as other information in this prospectus supplement and the documents incorporated by reference herein before deciding whether to invest in our securities. Such risks and uncertainties and those discussed below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common stock could decline and you could lose part or all of your investment.

If you purchase our common stock in this offering, you will suffer immediate and substantial dilution of your investment.

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the net tangible book value per share. Based on the public offering price of \$40.00 per share, investors in this offering will experience immediate dilution of \$35.12 per share, representing the difference between our pro forma net tangible book value per share after giving effect to the sale of shares by us in this offering and the public offering price. For more information, see “Dilution” herein. In addition, to the extent that any options are exercised or restricted stock units vest, new options or restricted stock units are issued under our equity incentive plans, or we otherwise issue additional shares of common stock in the future (including shares issued in connection with acquisitions or capital markets transactions), there will be further dilution to investors in this offering.

Substantial future sales or perceived potential sales of our common stock or other equity securities in the public market could cause the price of our common stock to decline significantly.

Sales of substantial amounts of our common stock or other equity securities in the public market, particularly by our directors, executive officers and significant shareholders, including in this offering or upon the expiration of any lock-up periods entered into in connection with this or other offerings of our common stock or other equity securities, or the perception that these sales could occur, could materially and adversely affect the price of our common stock and impair our ability to raise capital through the sale of equity securities. Under the terms of our restated investors’ rights agreement (“Investors’ Rights Agreement”), certain of our existing shareholders have rights, subject to conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other shareholders. See “Description of Capital Stock—Registration Rights” in the accompanying prospectus. In the event that these registration rights are exercised and a large number of shares of our common stock are sold in the public market, such sales could have a material adverse effect on the trading price of our common stock. In July 2020, we agreed to file a shelf registration statement or a prospectus supplement to the base prospectus filed in connection with this offering to register all of the outstanding securities of entities affiliated with Viking Global Investors LP (collectively, “Viking”), a holder of more than 20% of our outstanding common stock, on the 31st day following the pricing date of this offering (the “Viking Registration”).

In connection with this offering, subject to certain exceptions, all of our executive officers and directors, and certain shareholders, including Viking, have agreed to enter into lock-up agreements that restrict their ability to sell or transfer shares of our capital stock for 90 days from the date of this prospectus supplement (or, in Viking’s case, 31 days from the date of this prospectus supplement). The representatives may, in their sole discretion, permit our shareholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

In addition, certain of our employees, executive officers, and directors have entered or may enter into Rule 10b5-1 trading plans providing for sales of shares of our common stock from time to time. Under a

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Rule 10b5-1 trading plan, a broker executes trades pursuant to parameters established by the employee, director, or officer when entering into the plan, without further direction from the employee, officer, or director. Our employees, executive officers, and directors also may buy or sell additional shares outside of a Rule 10b5-1 trading plan when they are not in possession of material, nonpublic information, subject to the expiration of the lock-up agreements described in “*Underwriting*” herein.

We may invest or spend the proceeds of this offering in ways with which you may not agree or in ways that may not yield a return.

Our management will have broad discretion to use our net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply our net proceeds of this offering in ways that increase the value of your investment. We expect to use the net proceeds we receive to accelerate our investments in our TCR-Antigen Map activities, scale our commercial and marketing activities associated with our immunoSEQ Dx clinical products and services, and support continued research and development for our drug discovery initiatives. A portion of the net proceeds may also be used to scale our laboratory operations, capacity to support our commercial growth plans and for working capital and other general corporate purposes. We cannot specify with certainty all of the particular uses of the net proceeds that we will receive from this offering. Accordingly, we will have broad discretion in using these proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Furthermore, the amount and timing of our actual expenditures will depend on numerous factors, including the cash used in or generated by our operations, the adoption of our commercial products, including clonoSEQ and immunoSEQ Dx, cash received upon the achievement of development milestones, the level of our sales and marketing activities, and the pace of our international expansion plans. The net proceeds may be used for purposes that do not increase the value of our business or increase the risks to you, which could cause the price of our stock to decline. Until net proceeds are used, they may be placed in investments that do not produce significant income or that may lose value. We will not receive any proceeds from the sale of shares by the selling shareholder in this offering.

Our business could be adversely affected by the effects of health epidemics, including the recent COVID-19 pandemic, in regions where we or third parties on which we rely have significant laboratory operations, manufacturing facilities, concentrations of clinical trial sites or other business operations. The COVID-19 pandemic could materially affect our operations, including at our headquarters in Seattle and in our offices in South San Francisco, each subject to COVID-19 related government restrictions, as well as the business or operations of our manufacturers, contract research organizations or other third parties with whom we conduct business.

Our business could be adversely affected by global pandemics or health epidemics in regions where we have concentrations of clinical trial sites or other business operations, and such pandemics or epidemics could cause significant disruption in the operations of third-party manufacturers, suppliers, general contractors and sub-contractors related to capital projects and contract research organizations upon whom we rely. For example, in December 2019, a novel strain of coronavirus, SARS-CoV-2, causing a disease referred to as COVID-19, was reported to have surfaced in Wuhan, China. Since then, COVID-19 has spread to multiple countries and the World Health Organization has declared the outbreak a “pandemic.” In response to the pandemic, the U.S. government has imposed travel restrictions on travel between the United States, Europe and certain other countries.

Most of our facilities and employees are based in Seattle, Washington at our corporate headquarters, where the state and local governments have imposed a variety of restrictions designed to slow the spread of COVID-19, which have disrupted our normal operations. Similarly, San Mateo County, California is subject to state and local restrictions that have disrupted our normal operations in our South San Francisco office. With respect to our laboratory operations, we intend to rely on the measures implemented in the first quarter of 2020 to reduce the risk of exposure of COVID-19 to the employees who continue to work on site as part of government-defined

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essential services, including the implementation of work-from-home policies for certain employees, as well as the implementation of shifts and zones to physically distance employees who remain on site. In addition, our laboratory staff has begun processing samples from patients who have contracted, been exposed to, or recovered from COVID-19. We work with a variety of materials that could be hazardous to human health, but we have no specific experience with COVID-19. We intend to continue to adhere to the safety measures implemented to reduce the risk of exposure to our on-site staff. In the event of COVID-19 exposure to our employees, it is possible that all or a portion of our operations could be materially disrupted.

The effects of the stay at home orders or similar government orders and our work-from-home policies may negatively impact productivity, disrupt our business and delay our clinical programs and corporate expansion initiatives, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations regarding our ability to conduct our business in the ordinary course. These and similar, and perhaps more severe, disruptions in our operations could negatively impact our business, operating results and financial condition.

Quarantines, stay at home orders and similar government orders, or the perception that such orders, shutdowns or other restrictions on business operations could occur, whether related to COVID-19 or other infectious diseases, could impact personnel at third-party manufacturing or supplier facilities in the United States and other countries, or the availability or cost of materials, which would disrupt our supply chain.

The spread of COVID-19, which has caused significant worldwide economic volatility, uncertainty and disruption, may materially affect us economically. While the potential economic impact brought by, and the duration of, COVID-19 may be difficult to assess or predict, a widespread pandemic could result in significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. In addition, a recession or market correction resulting from the spread of COVID-19 could materially affect our business and the value of our common stock.

The global pandemic of COVID-19 continues to rapidly evolve. The ultimate impact of the COVID-19 pandemic or a similar health epidemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, clinical trials, corporate expansion plans and other initiatives, or the impacts to healthcare systems or the global economy as a whole. However, these effects could have a material impact on our operations, and we will continue to monitor the COVID-19 situation closely.

The COVID-19 pandemic could adversely impact portions of our business that rely on research and development activities or clinical trials and delay or disrupt our pipeline, which may adversely impact revenue.

The extent to which the COVID-19 pandemic may impact our business with respect to research and development and clinical trials will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. As the COVID-19 pandemic continues to spread around the globe, we will likely experience disruptions that could severely impact our business with respect to research and development and clinical trials, including:

- delays or difficulties in enrolling patients or maintaining scheduled study visits in our clinical trials;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel or the unavailability of service providers, such as mobile phlebotomists due to business interruptions to or adverse financial impact on those service providers;

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- limitations in employee resources that would otherwise be focused on the conduct of our business with respect to research and development or clinical trials, including due to illness of our employees or their families, an increase in childcare responsibilities for certain employees, the desire of our employees to avoid close contact or contact with large groups of people or as a result of the governmental imposition of stay at home orders or similar working restrictions;
- limitations in employee resources that would otherwise be focused on the conduct of our business with respect to research and development or clinical trials, including due to illness of our employees or their families, an increase in childcare responsibilities for certain employees, the desire of our employees to avoid close contact or contact with large groups of people or as a result of the governmental imposition of stay at home orders or similar working restrictions;
- delays in receiving approval from local regulatory authorities to initiate our planned clinical trials;
- delays in clinical sites receiving the supplies, materials or services needed to conduct clinical trials;
- interruption in global shipping that may affect the transport of clinical trial materials;
- changes in local regulations as part of a response to the COVID-19 pandemic, which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or discontinuing clinical trials altogether;
- delays in necessary interactions with local regulators, ethics committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees; and
- refusal of the FDA to accept data from clinical trials in affected geographies outside the United States.

In addition, regulatory milestones represent a substantial part of our business strategy and are a key component of development revenue. The disruptions set forth above may materially affect our ability to achieve regulatory milestones, resulting in delays in our clinical pipeline and a material adverse effect on revenues.

Due to the uncertainties related to the COVID-19 pandemic, we may also experience reductions in revenue in the near term because of restrictions in our customers' ability to procure samples for their research initiatives and because of general reductions in clinical testing. Additionally, if our sample volume throughput is reduced as a result of the COVID-19 pandemic, cost of revenue as a percentage of total revenue may be adversely impacted due to fixed overhead costs.

Our efforts to discover and develop products and services related to COVID-19 may not be successful from either a platform extension or commercialization perspective.

We are seeking to leverage our immune medicine platform to discover and develop potential antibody therapies and diagnostics for COVID-19. In April 2020, we entered into a nonbinding memorandum of understanding with Amgen to leverage our immune medicine platform to screen for antibody therapies that may neutralize the virus that causes COVID-19, which has been superseded by an option for Amgen to develop and commercialize any neutralizing antibodies we discover. In addition, we recently extended our collaboration with Microsoft to pursue a diagnostic signal for COVID-19. Our efforts in this area are early, are based on initial sample sets, and continue to evolve and mature continuously as we augment our databases and pool of knowledge.

In the second quarter of 2020, we confirmed a clinical signal for the detection of the virus that causes COVID-19, called SARS-CoV-2. We are actively exploring immunoSEQ Dx's ability to detect the TCR response to the virus. To generate data, we initiated the ImmuneCODE program to collect, analyze, and publicize data about the TCRs specific to SARS-CoV-2. ImmuneCODE data is being generated from a variety of sources, including our own prospective 1,000 patient study called ImmuneRACE to collect blood samples from people who have been exposed, are actively fighting or have recently recovered from COVID-19. Approximately 4,000

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additional samples are being collected from participating institutions around the world. While we believe that quantifying virus-specific T cells may provide important diagnostic advantages because T cells appear earlier than antibodies and seem to persist longer, the data upon which such belief is based is limited and our analyses are preliminary. As we continue to collect and analyze additional data, we may find that our initial beliefs are not supported by a larger data set or further analysis. For example, T cells may not be an accurate early indication of disease, and they may not appear longer than antibodies. If additional data does not support the trends that appear in our preliminary analyses, or if any diagnostic test that we ultimately develop is not as accurate as existing tests, we may terminate these development efforts, which may adversely impact our financial condition, other development efforts and our stock price.

Our efforts to discover, develop and commercialize potential antibody therapies and diagnostics for COVID-19 involve a high degree of risk, and our efforts may fail for many reasons, including:

- failure of our platform to extend to COVID-19 antibody therapies and diagnostics as expected;
- failure of the antibody therapies or diagnostics to perform as expected, including defects and errors;
- lack of validation data;
- failure to demonstrate the analytical accuracy or clinical utility of existing antibody therapies and diagnostic tests;
- failure to obtain the necessary regulatory approvals or clearances; or
- commercial disruption caused by the development of competing products or services.

Additionally, even if we are successful in developing effective COVID-19 antibody therapies and diagnostics and securing the regulatory approvals or clearances needed to bring them to market, there can be no assurances as to the commercial success of either the antibody therapies or the diagnostics. Our investments in the discovery and development of products and services related to COVID-19 may not be accretive to our future financial results and if we determine that any product or service is unlikely to succeed, we may abandon them without any return on our investment.

USE OF PROCEEDS

We expect to receive net proceeds of approximately \$226.4 million from the sales of shares by us in this offering, after deducting underwriting discounts and estimated net offering expenses payable by us, or approximately \$271.8 million if the underwriters exercise in full their option to purchase up to an additional 1,200,000 shares of common stock from us in this offering. We will not receive any proceeds from the sales of shares by the selling shareholder in this offering.

We intend to use the net proceeds to us from this offering: (i) to accelerate our investments in our TCR-Antigen Map; (ii) to scale our commercial and marketing activities associated with our immunoSEQ Dx clinical products and services; (iii) to support our continued research and development for our drug discovery initiatives; (iv) to support the scale of our laboratory operations and capacity to support our commercial growth plans and (v) for working capital and other general corporate purposes.

Our expected use of the net proceeds to us from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above and we expect that we will require additional funds in order to fully accomplish the specified uses of the proceeds to us in this offering. We may also use a portion of the net proceeds to us to in-license, acquire, or invest in complementary businesses or technologies to continue to build our pipeline, research and development capabilities and our intellectual property position, although we currently have no agreements or commitments with respect to any such transaction.

Due to uncertainties inherent in the development process, it is difficult to estimate the exact amounts of the net proceeds that will be used for any particular purpose. We may use our existing cash, cash equivalents, marketable securities and the future payments, if any, generated from any future collaboration agreements to fund our operations, any of which may alter the amount of net proceeds used for a particular purpose. In addition, the amount, allocation and timing of our actual expenditures will depend upon numerous factors, including the results of our research and development efforts, the timing and success of our Genentech and Microsoft collaborations and the timing of regulatory submissions. Accordingly, we will have broad discretion in using these proceeds to us.

Pending our use of the net proceeds to us from this offering, we intend to invest the net proceeds to us in a variety of capital preservation instruments, including short-term and long-term interest-bearing instruments, investment-grade securities, and direct or guaranteed obligations of the U.S. government. We cannot predict whether the proceeds invested will yield a favorable return. Our management will retain broad discretion in the application of the net proceeds we receive from this public offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain any future earnings for use in the operation of our business and do not intend to declare or pay any cash dividends in the foreseeable future. Any further determination to pay dividends on our capital stock will be at the discretion of our board of directors, subject to applicable laws, and will depend on our financial condition, results of operations, capital requirements, restrictions in the agreements governing any indebtedness we may enter into, general business conditions and other factors that our board of directors considers relevant.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the price per share of common stock in this offering and the as adjusted net tangible book value per share of common stock immediately after this offering.

Our historical net tangible book value as of March 31, 2020 was \$421.1 million, or \$3.33 per share of our common stock. Our historical net tangible book value is the amount of our total tangible assets less our total liabilities. Historical net tangible book value per share represents historical net tangible book value divided by the 126,621,829 shares of our common stock outstanding as of March 31, 2020.

After giving effect to the sale of 6,000,000 shares of common stock by us in this offering at the public offering price of \$40.00 per share, and after deducting underwriting discounts and estimated net offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2020 would have been approximately \$647.4 million, or approximately \$4.88 per common share. This represents an immediate increase in as adjusted net tangible book value of \$1.55 per share to our existing shareholders and an immediate dilution of \$35.12 per share to investors participating in this offering.

Dilution per share to new investors is determined by subtracting net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this per share dilution (assuming the underwriters do not exercise in full their option to purchase additional shares from us) in this offering:

Public offering price per share		\$40.00
Historical net tangible book value per share as of March 31, 2020	\$3.33	
Increase in net tangible book value per share attributable to new investors	<u>1.55</u>	
As adjusted net tangible book value per share after this offering		<u>4.88</u>
Dilution per share to new investors		<u>\$35.12</u>

The foregoing table and discussion is based on 126,621,829 shares of our common stock issued and outstanding as of March 31, 2020 and excludes:

- 56,875 shares of common stock issuable upon the exercise of a warrant outstanding as of March 31, 2020, with an exercise price of \$2.64 per share;
- 17,489,954 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2020, issued under our Sequenta Plan, our 2009 Plan and our 2019 Plan, with a weighted-average exercise price of \$9.44 per share;
- 2,250 shares of common stock issuable upon the vesting of restricted stock units outstanding as of March 31, 2020 under our 2019 Plan, with a weighted-average grant date fair value per share of \$41.63;
- 314,339 shares of common stock issuable upon the exercise of stock options issued after March 31, 2020 (which takes into account terminations after March 31, 2020), under our 2019 Plan, with a weighted-average exercise price of \$32.86 per share;
- 50,000 shares of common stock issuable upon the vesting of restricted stock units issued after March 31, 2020, under our 2019 Plan, with a weighted-average grant date fair value per share of \$28.10;

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- 19,433,424 shares of common stock available for future issuance as of March 31, 2020, under our 2019 Plan; and
- 2,804,298 shares of common stock available for future issuance as of March 31, 2020, under our ESPP.

If the underwriters exercise in full their option to purchase up to an additional 1,200,000 shares of common stock from us at the public offering price of \$40.00 per share, the as adjusted net tangible book value after this offering would be \$5.18 per share, representing an increase in the as adjusted net tangible book value of \$1.85 per share to existing shareholders and immediate dilution in net tangible book value of \$34.82 per share to investors purchasing our common stock in this offering.

To the extent that any options are exercised or restricted stock units vest, new options or restricted stock units are issued under our equity incentive plans, or we otherwise issue additional shares of common stock in the future (including shares issued in connection with acquisitions), there will be further dilution to new investors.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our shareholders.

SELLING SHAREHOLDER

The following table and footnotes set forth information with respect to the beneficial ownership of our common stock by the selling shareholder as of June 30, 2020, subject to certain assumptions set forth in the footnotes and as adjusted to reflect the issuance and sale of shares of common stock by us and the selling shareholder as set forth on the cover page of this prospectus supplement. Percentage of beneficial ownership before this offering is based on 128,233,842 shares of common stock outstanding as of June 30, 2020. Percentage of beneficial ownership after this offering assumes the issuance and sale of shares of 6,000,000 shares common stock by us and 2,000,000 shares of common stock by the selling shareholder in this offering. Beneficial ownership is based on information furnished by the selling shareholder. Beneficial ownership and percentage ownership are determined in accordance with the rules of the SEC.

When we refer to the “selling shareholder” in this prospectus supplement, we include any pledgees, donees, assignees, transferees, successors and others who may hold any of the selling shareholder’s interest.

Name of Selling Shareholder	Shares Beneficially Owned Prior to the Offering		Number of Shares Being Offered	Shares Beneficially Owned After the Offering (assuming no exercise of option)		Shares Beneficially Owned After the Offering (assuming full exercise of option)	
	Number of Shares	Percentage		Number of Shares	Percentage	Number of Shares	Percentage
Matrix Capital Management Master Fund, LP(1)	15,119,534	11.8%	2,000,000	13,119,534	9.8%	13,119,534	9.7%

- (1) Based on information set forth in a Schedule 13G jointly filed by Matrix Capital Management Company, LP and David Goel with the SEC on February 14, 2020 and information provided to us by the Matrix Capital Management Master Fund, LP (“Matrix Fund”) in January 2020 in connection with the January 2020 Offering. Matrix Capital Management Company, LP, the investment adviser to Matrix Fund, has discretionary authority to vote and dispose of the shares held by the Matrix Fund and may be deemed to be the beneficial owner of such shares. David Goel serves as the sole Managing General Partner of Matrix Capital Management Company, LP, and in such capacity, may also be deemed to have investment and voting power over the shares held by Matrix Fund. The business address of each of Matrix Fund, Matrix Capital Management Company, LP and David Goel is 1000 Winter Street, Suite 4500, Waltham, MA 02451. In addition to the 15,115,090 shares of common stock reported by Matrix Fund, Mr. Goel also, in his personal capacity, holds 4,444 shares of common stock issuable upon exercise of options exercisable within 60 days of June 30, 2020.

For more information about our relationships with the selling shareholder and its affiliates, see “Relationships and Related Party Transactions” in our definitive proxy statement on Schedule 14A, filed with the SEC on April 24, 2020, which is incorporated herein by reference.

UNDERWRITING

We, the selling shareholder and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. J.P. Morgan Securities LLC, Goldman Sachs & Co. LLC, and BofA Securities, Inc. are the representatives of the underwriters.

<u>Underwriters</u>	<u>Number of Shares</u>
J.P. Morgan Securities LLC	2,640,000
Goldman Sachs & Co. LLC	2,640,000
BofA Securities, Inc.	1,440,000
Cowen and Company, LLC	640,000
Guggenheim Securities, LLC	320,000
William Blair & Company, L.L.C.	320,000
Total	8,000,000

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional 1,200,000 shares from us in this offering to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following tables show the per share and total underwriting discounts and commissions to be paid to the underwriters by us and the selling shareholder. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 1,200,000 additional shares from us in this offering.

Paid by the Company

	<u>No Exercise</u>	<u>Full Exercise</u>
Per Share	\$ 2.20	\$ 2.20
Total	\$ 13,200,000	\$ 15,840,000

Paid by the Selling Shareholder

	<u>No Exercise</u>
Per Share	\$ 2.20
Total	\$ 4,400,000

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$1.32 per share from the public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

In connection with this offering, we, all of our executive officers, directors and certain shareholders, including the selling shareholder and Viking, have agreed to enter into lock-up agreements that restrict their ability, subject to certain exceptions, to sell, transfer or hedge shares of our capital stock for 90 days from the date of this prospectus supplement (or, in Viking's case, 31 days from the date of this prospectus supplement). The representatives may, in their sole discretion, permit our shareholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

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Under the terms of the Investors' Rights Agreement, (i) the holders of at least 20% of registrable securities then outstanding or (ii) Viking and certain of its affiliates are entitled to demand shelf registration rights under certain conditions. See "Description of Capital Stock—Registration Rights" in the accompanying prospectus. In July 2020, we agreed to file a shelf registration statement or a prospectus supplement to the base prospectus filed in connection with this offering to register all of Viking's outstanding securities on the 31st day following the pricing date of this offering. Notwithstanding the Viking Registration, all of Viking's outstanding securities will remain subject to a lock-up agreement continuing through the date 31 days after the date of this prospectus, except with the prior written consent of the representatives.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover 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 additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such 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 there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter or will be identified in a post-effective amendment.

European Economic Area and United Kingdom

In relation to each Member State of the European Economic Area and the United Kingdom (each a "Relevant State"), no shares of common stock (the "Shares") have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the Shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another

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Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation), except that offers of Shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the Representatives for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Shares shall require us or any Representative to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer to the public” in relation to any Shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any Shares to be offered so as to enable an investor to decide to purchase or subscribe for any Shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

United Kingdom

Each Underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (as amended, the “FSMA”)) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to us or the selling shareholder; and
- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

Switzerland

Shares of our common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (“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 shares of our common stock or this offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus nor any other offering or marketing material relating to this offering, us or shares of our common stock 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 shares of our common stock will not be supervised by, the Swiss Financial Market Supervisory Authority, and the offer of shares of our common stock has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (“CISA”). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (“DFSA”). This prospectus is intended for distribution only to persons of a type

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specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for this prospectus. The shares of our common stock to which this prospectus relates may be illiquid, subject to restrictions on their resale or illiquid and subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares of our common stock. If you do not understand the contents of this prospectus, you should consult an authorized financial advisor.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission in relation to this offering. This prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (“Corporations Act”), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

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

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

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

Canada

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

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory of these rights or consult with a legal advisor.

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

Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (“Companies (Winding Up and Miscellaneous Provisions) Ordinance”) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (“Securities and Futures Ordinance”), or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, 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, in each case subject to conditions set forth in the SFA.

Where the shares 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 in 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, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation’s securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (“Regulation 32”)

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries’ rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is

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made on terms that such rights or interest are acquired at a consideration of not less than S\$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), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) (the "FIEA"). The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

The underwriters have agreed to reimburse us for certain expenses in connection with this offering. We estimate that the net offering expenses payable by us, excluding underwriting discounts and commissions, will be approximately \$450,000.

We and the selling shareholder have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us and to persons and entities with relationships with us, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

**CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS
FOR NON-U.S. HOLDERS OF COMMON STOCK**

The following is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax on net investment income, and does not address any estate or gift tax consequences (other than those specifically set forth below) or any tax consequences arising under any state, local or foreign tax laws, or any other U.S. federal tax laws. This discussion is based on the Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the IRS, all as in effect on the date of this prospectus supplement. These authorities are subject to differing interpretations and may change, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This discussion is limited to non-U.S. holders who purchase our common stock pursuant to this offering and who hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the U.S. federal income tax consequences that may be relevant to an individual holder in light of such holder’s particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to non-U.S. holders subject to special rules under the U.S. federal income tax laws, including:

- certain former citizens or long-term residents of the United States;
- partnerships or other pass-through entities (and investors therein);
- “controlled foreign corporations”;
- “passive foreign investment companies”;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities;
- tax-exempt organizations and governmental organizations;
- tax-qualified retirement plans;
- persons subject to the alternative minimum tax;
- persons subject to special tax accounting rules under Section 451(b) of the Code;
- persons that own or have owned, actually or constructively, more than 5% of our common stock;
- persons who have elected to mark securities to market; and
- persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy or integrated investment.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our common stock and the partners in such partnerships are urged to consult their tax advisors about the particular U.S. federal income tax consequences to them of holding and disposing of our common stock.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING

AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS. IN ADDITION, SIGNIFICANT CHANGES IN U.S. FEDERAL TAX LAWS WERE RECENTLY ENACTED. PROSPECTIVE INVESTORS SHOULD ALSO CONSULT WITH THEIR TAX ADVISORS WITH RESPECT TO SUCH CHANGES IN U.S. TAX LAW AS WELL AS POTENTIAL CONFORMING CHANGES IN STATE TAX LAWS.

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a “U.S. person” or a partnership (including any entity or arrangement treated as a partnership) or other pass-through entity for U.S. federal income tax purposes. A U.S. person is any person that, for U.S. federal income tax purposes, is or is treated as any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (including any entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

If you are an individual non-U.S. citizen, you may, in some cases, be deemed to be a resident alien (as opposed to a nonresident alien) by virtue of being present in the United States for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in the current calendar year. Generally, for this purpose, all the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year, are counted.

Resident aliens are generally subject to U.S. federal income tax as if they were U.S. citizens. Individuals who are uncertain of their status as resident or nonresident aliens for U.S. federal income tax purposes are urged to consult their own tax advisors regarding the U.S. federal income tax consequences of the ownership or disposition of our common stock.

Distributions on Our Common Stock

If we distribute cash or other property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts distributed in excess of our current and accumulated earnings and profits will constitute a return of capital and will first be applied against and reduce a non-U.S. holder’s tax basis in our common stock, but not below zero. Any distribution in excess of a non-U.S. basis will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described in the “*Gain On Disposition of Our Common Stock*” section below.

Subject to the discussion below regarding effectively connected income, backup withholding and FATCA (as defined below), dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish us or our withholding agent with a valid IRS Form W-8BEN or IRS Form W-8BEN-E (or applicable form) certifying such non-U.S. holder’s qualification for the reduced rate. This certification must be provided to us or our

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withholding agent before the payment of dividends and must be updated periodically. If the non-U.S. holder holds our common stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our withholding agent, either directly or through other intermediaries.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder's U.S. trade or business (and are attributable to such holder's permanent establishment or fixed base in the United States if required by an applicable tax treaty), the non-U.S. holder will generally be exempt from U.S. federal withholding tax, provided that the non-U.S. holder furnishes a valid IRS Form W-8ECI (or applicable successor form) to the applicable withholding agent.

However, any such effectively connected dividends paid on our common stock generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Non-U.S. holders that do not provide the required certification on a timely basis, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain on Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized on the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "U.S. real property interest" by reason of our status as a U.S. real property holding corporation ("USRPHC"), for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock is not regularly traded on an established securities market during the calendar year in which the sale or other disposition occurs.

Determining whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests. We believe we are not currently and we do not anticipate becoming a USRPHC for U.S. federal income tax purposes, although there can be no assurance we will not in the future become a USRPHC.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such non-U.S. holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Gain described in the second

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bullet point above will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses. Gain described in the third bullet point above will generally be subject to federal income tax in the same manner as gain that is effectively connected with the conduct of a U.S. trade or business (subject to any provisions under an applicable income tax treaty), except that the branch profits tax generally will not apply.

Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

U.S. Federal Estate Tax

The estates of nonresident alien individuals generally are subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, our common stock will be U.S. situs property and, therefore, will be included in the taxable estate of a nonresident alien decedent, unless an applicable estate tax treaty between the United States and the decedent's country of residence provides otherwise. The terms "resident" and "nonresident" are defined differently for U.S. federal estate tax purposes than for U.S. federal income tax purposes. Investors are urged to consult their own tax advisors regarding the U.S. federal estate tax consequences of the ownership or disposition of our common stock.

Information Reporting and Backup Withholding

Annual reports are required to be filed with the IRS and provided to each non-U.S. holder indicating the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the holder's conduct of a U.S. trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

Backup withholding, currently at a 24% rate, generally will not apply to payments to a non-U.S. holder of dividends on or the gross proceeds of a disposition of, our common stock provided the non-U.S. holder furnishes the required certification for its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or certain other requirements are met. Backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a U.S. tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's U.S. federal income tax liability, if any.

Withholding on Foreign Entities

The Foreign Account Tax Compliance Act ("FATCA"), as reflected in Sections 1471 through 1474 of the Code, imposes a U.S. federal withholding tax of 30% on certain payments, including dividends paid in respect of our common stock and the gross proceeds of disposition on our common stock, made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity and debt

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holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or an exemption applies. FATCA also generally will impose a U.S. federal withholding tax of 30% on certain payments, including dividends paid in respect of our common stock and the gross proceeds of disposition on our common stock, made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying certain direct and indirect U.S. owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. FATCA currently applies to dividends paid on our common stock. Proposed Treasury Regulations, which may be relied upon until final Treasury Regulations are finalized, currently eliminate FATCA withholding on payments of gross proceeds from sales or other dispositions of our common stock.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS SUCH AS ESTATE AND GIFT TAX.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement will be passed upon for us by DLA Piper LLP (US), Seattle, Washington. As of the date of this prospectus supplement, partners of DLA Piper LLP (US) beneficially own an aggregate of less than 0.5% of our common stock. Fenwick & West LLP, Seattle, Washington is acting as counsel for the underwriters in connection with this offering. Skadden, Arps, Slate, Meagher & Flom LLP, New York, New York, is acting as counsel for the selling shareholder in connection with this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, as set forth in their report, which is incorporated by reference into this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

PROSPECTUS



**Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

From time to time, we may offer and sell our Common Stock, Preferred Stock, Debt Securities, Warrants or Units, in each case in one or more issuances and at prices and on terms that we will determine at the time of the offering. In addition, selling shareholders may offer securities covered by this prospectus.

This prospectus describes the general manner in which we or a selling shareholder may offer any securities using this prospectus. We will specify in an accompanying prospectus supplement the terms of the securities offered and other details regarding the offering thereof. 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 any securities. This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

Our common stock is listed on the Nasdaq Global Select Market under the symbol "ADPT." On July 13, 2020 the last reported sale price of our common stock was \$44.18 per share.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "[Risk Factors](#)" on page 9 of this prospectus and under any similar heading in the documents that are incorporated by reference into this prospectus, as well as "[Special Note Regarding Forward-Looking Statements](#)" on page 5 of this prospectus. You should read the entire prospectus carefully before you make your investment decision.

The securities covered by this prospectus may be sold directly by us to investors, through agents designated by us from time to time or through underwriters or dealers at prices and on terms to be determined at the time of offering. We will include in an applicable prospectus supplement the names of any underwriters or agents and any applicable commissions or discounts. Additional information on the methods of sale appears under "Plan of Distribution" in this prospectus. We will also describe in an applicable prospectus supplement the price to the public of such securities and the way(s) in which we expect to use the net proceeds we receive from any sale.

NEITHER THE U.S. 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 July 14, 2020.

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You should rely only on the information contained in or incorporated by reference into this prospectus and in an applicable prospectus supplement to this prospectus. Neither we nor any selling shareholder have authorized any other person to provide you with different or additional information. If anyone provides you with different, additional or inconsistent information, you should not rely on it. Neither we nor any selling shareholder take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor any selling shareholder are making an offer to sell these securities or soliciting any offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, any applicable prospectus supplement or any free writing prospectus we authorize to be delivered to you is accurate only as of the date of that document or any other date set forth in that document. Additionally, any information we have incorporated by reference into this prospectus or in any applicable prospectus supplement is accurate only as of the date of the document incorporated by reference or other date set forth in that document, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any sale of securities. Our business, financial condition, results of operations, cash flows and prospects may have changed since that date.

This prospectus, any applicable prospectus supplement and the information incorporated herein or therein by reference contains market data, industry statistics and other data that have been obtained or compiled from information made available by independent third parties. We have not independently verified the accuracy and completeness of such data. This prospectus, any applicable prospectus supplement and the information incorporated herein or therein by reference include trademarks, service marks and trade names owned by us or other companies. Solely for convenience, we may refer to our trademarks included or incorporated by reference into this prospectus, any applicable prospectus supplement or any free writing prospectus without the TM or ® symbols, but any such references are not intended to indicate that we will not assert, to the fullest extent permitted under applicable law, our rights to our trademarks or other intellectual property. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

When used in this prospectus, the terms “Adaptive,” “we,” “our” and “us” refer to Adaptive Biotechnologies Corporation, a Washington corporation, unless otherwise specified or the context otherwise requires.

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement that we have filed with the Securities and Exchange Commission (the “SEC”) as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended (the “Securities Act”). Under this process, we or a selling shareholder may sell the securities described in this prospectus in one or more offerings. This prospectus describes the general manner in which we or a selling shareholder may offer the securities described in this prospectus.

Each time we or a selling shareholder offer securities pursuant to the registration statement we will provide a prospectus supplement that will contain specific information about the offering and the securities offered, and may also add, update or change information contained in this prospectus. We also may authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. If there is any inconsistency between information in this prospectus and any accompanying prospectus supplement and any related free writing prospectus, you should rely on the information in the most recent applicable prospectus supplement or any related free writing prospectus and documents incorporated by reference herein and therein. This prospectus may not be used to offer to sell, solicit an offer to buy or consummate a sale of our securities unless it is accompanied by a prospectus supplement.

This prospectus, together with any accompanying prospectus supplement, contains important information you should know before investing in our securities, including important information about us and the securities being offered. You should carefully read both documents, as well as the additional information contained in the documents described under “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in both this prospectus and the applicable prospectus supplement, and in particular the annual, quarterly and current reports and other documents we file with the SEC from time to time. Neither this prospectus nor any accompanying prospectus supplement is an offer to sell these securities or is soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus and the applicable prospectus supplement. This prospectus and the applicable prospectus supplement do not contain all of the information set forth in the registration statement and its exhibits and schedules in accordance with SEC rules and regulations. For further information with respect to us and the securities being offered by this prospectus and the applicable prospectus supplement, you should read the registration statement, including its exhibits and schedules. Statements contained in this prospectus and the applicable prospectus supplement, including documents that we have incorporated by reference, as to the contents of any contract or other document referred to are not necessarily complete, and, with respect to any contract or other document filed as an exhibit to the registration statement or any other such document, each such statement is qualified in all respects by reference to the corresponding exhibit. You should review the complete contract or other document to evaluate these statements. You may obtain copies of the registration statement and its exhibits via the SEC's EDGAR database or our website.

We file annual, quarterly and current reports, proxy statements and other documents with the SEC under the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers, including us, that file electronically with the SEC. You may obtain documents that we file with the SEC at www.sec.gov.

Our website address is www.adaptivebiotech.com. The information on our website, however, is not, and should not be deemed to be, a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

SEC rules permit us to incorporate information by reference into this prospectus and any applicable prospectus supplement. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus and any applicable prospectus supplement, except for information superseded by information contained in this prospectus or the applicable prospectus supplement itself or in any subsequently filed incorporated document. This prospectus and any applicable prospectus supplement incorporate by reference the documents set forth below that we have previously filed with the SEC, other than information in such documents that is deemed to be furnished and not filed. These documents contain important information about us and our business and financial condition. Any report or information within any of the documents referenced below that is furnished, but not filed, shall not be incorporated by reference into this prospectus.

- Our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2019, filed with the SEC on February 26, 2020;
- Our Quarterly Report on [Form 10-Q](#) for the three months ended March 31, 2020, filed with the SEC on May 12, 2020;
- Our Current Reports on Form 8-K, filed with the SEC on [January 8, 2020](#), [January 24, 2020](#) (as amended on [January 27, 2020](#)), [February 18, 2020](#), [February 26, 2020](#), [March 20, 2020](#), [May 5, 2020](#), [May 12, 2020](#), [June 16, 2020](#) and [June 26, 2020](#);
- The information specifically incorporated by reference into our Annual Report on [Form 10-K](#) for the year ended December 31, 2019 from our [Definitive Proxy Statement](#) on Schedule 14A, filed on April 24, 2020; and
- The description of our common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on June 26, 2019, and any amendment or report filed with the SEC for the purpose of updating the description.

All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, after the date of the initial registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, and any previously filed documents. All documents that we file (but not those that we furnish) pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and prior to the termination of the offering of any of the securities covered under this prospectus shall be deemed to be incorporated by reference into this prospectus and will automatically update and supersede the information in this prospectus, the applicable prospectus supplement and any previously filed documents.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this prospectus or the applicable prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus and such applicable prospectus supplement to the extent that a statement contained in this prospectus or such applicable prospectus supplement, or in any other subsequently filed document which also is or is deemed to be incorporated by reference into this prospectus and such applicable prospectus supplement, modifies or supersedes such earlier statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or such applicable prospectus supplement.

Documents incorporated by reference are available from us without charge, excluding all exhibits unless specifically incorporated by reference as an exhibit to this prospectus and the applicable prospectus supplement.

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Prospective investors may obtain documents incorporated by reference into this prospectus and the applicable prospectus supplement at no cost by requesting them in writing or by telephone from us at our executive offices at:

Adaptive Biotechnologies Corporation
1551 Eastlake Avenue East, Suite 200
Seattle, WA 98102
(206) 659-0067
Attention: Corporate Secretary

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein contain forward-looking statements that are based on management's beliefs and assumptions and on information currently available to management. In some cases, you can identify forward-looking statements by the following words: "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words.

These statements involve risks, uncertainties and other factors that may cause actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. Although we believe we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the success of our significant investments in our continued research and development of new products and services;
- the success of developing, commercializing and achieving commercial market acceptance of clonoSEQ, immunoSEQ Dx, our TCR-Antigen Map, TCR-based cellular therapies and additional products and services beyond our current portfolio;
- the potential for our identified research priorities to advance our proprietary immune medicine platform or our future products and services;
- the success, cost and timing of our research and development activities, preclinical and clinical studies and, in certain instances, clinical trials and clinical validations;
- the potential benefits of collaborations, our ability to enter into collaborations or arrangements, and our ability to attract collaborators with development, manufacturing, regulatory and commercialization expertise;
- the ability and willingness of our collaborators to continue development, manufacturing, distribution and commercialization activities relating to our jointly developed products and services;
- our ability to identify research priorities and apply a risk-mitigated strategy to efficiently discover and develop products and services;
- our ability to obtain and maintain regulatory approval of our products and services;
- our ability, and that of our collaborators, to commercialize our products and services;
- our ability to generate revenue and obtain funding for our operations, including funding necessary to complete further development of our current and future products and services, and if successful, commercialization;
- the size and growth potential of the markets for our products and services, and our ability to serve those markets, either alone or in combination with others;
- the rate and degree of market acceptance of our products and services;
- our financial performance;
- the pricing and reimbursement of our products and services following approval where required;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our immune medicine platform, products, services and related technologies and the direction of such protection;

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- regulatory developments in the United States and foreign countries;
- the success of competing products or services that are or may become available;
- developments relating to our competitors and our industry;
- our ability to attract and retain key scientific or management personnel;
- the impact of laws and regulations;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- the use of proceeds from any offering; and
- the potential adverse effect on our business, operations and plans or timelines (including those plans and timelines related to expansion initiatives and clinical development) resulting from a health epidemic or pandemic, including the recent COVID-19 pandemic.

In addition, you should refer to the “*Risk Factors*” section of this prospectus for a discussion of other important factors that may cause actual results to differ materially from those expressed or implied by the forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if the forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so, and we disclaim any obligation to do so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

ABOUT THE COMPANY

The following highlights information about the registrant and our business contained elsewhere or incorporated by reference into this prospectus. It is not complete and does not contain all of the information that you should consider before investing in any of our securities. You should carefully read this prospectus together with the more detailed information incorporated by reference into this prospectus.

Overview

We are advancing the field of immune-driven medicine by harnessing the inherent biology of the adaptive immune system to transform the diagnosis and treatment of disease. We believe the adaptive immune system is nature's most finely tuned diagnostic and therapeutic for most diseases, but the inability to decode it has prevented the medical community from fully leveraging its capabilities. Our immune medicine platform applies our proprietary technologies to read the diverse genetic code of a patient's immune system and understand precisely how it detects and treats disease in that patient. We capture these insights in our dynamic clinical immunomics database, which is underpinned by computational biology and machine learning, and use them to develop and commercialize clinical products and services that we are tailoring to each individual patient.

We have two commercial products and services and a robust pipeline of clinical products and services that we are designing to diagnose, monitor and enable the treatment of diseases such as cancer, autoimmune conditions and infectious diseases. Since our inception in 2009, we have characterized over 47 billion immune receptors, established partnerships and commercial relationships with over 165 biopharmaceutical companies and launched two product lines. Our goal is to understand the adaptive immune system and translate it into new clinical products with unprecedented scale, precision and speed.

Our immune medicine platform is the foundation for our expanding suite of clinical products and services. The cornerstone of our platform and core immunosequencing product, immunoSEQ, serves as our underlying research and development engine and generates revenue from academic and biopharmaceutical customers. Our first clinical diagnostic product, clonoSEQ, is the first test authorized by the FDA for the detection and monitoring of minimal residual disease in patients with select blood cancers. Leveraging our collaboration with Microsoft Corporation ("Microsoft"), we are also developing a diagnostic product, immunoSEQ Dx, that may enable early detection of many diseases from a single blood test. We are currently running our first clinical validation study in acute Lyme disease following proof of concept in 2019. We have recently extended our collaboration with Microsoft to pursue a diagnostic signal for COVID-19, and continue to pursue signals for other disease states. Our first therapeutic product candidates, being developed under our collaboration agreement with Genentech, leverage our platform to identify specific immune cells to develop into cellular therapies in oncology. We believe this approach has the potential to be applicable to patients across a wide range of cancers. We are also developing therapeutic product candidates, under our collaboration agreement with Amgen, to identify potential therapeutic antibodies that can neutralize COVID-19. Our platform is emerging as a clinical product development engine for both the diagnosis and treatment of disease.

We were incorporated in the State of Washington on September 8, 2009 under the name Adaptive TCR Corporation. On December 21, 2011, we changed our name to Adaptive Biotechnologies Corporation. In January 2015, we acquired Sequentia, Inc., a San Francisco, California-based company that was also developing an NGS test for MRD. Our principal executive offices are located at 1551 Eastlake Avenue East, Suite 200, Seattle, Washington 98102, and our telephone number is (206) 659-0067. We maintain a website at www.adaptivebiotech.com. Information contained on or that can be accessed through our website is neither a part of, nor incorporated by reference into, this prospectus, and you should not consider information on our website to be part of this prospectus.

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are

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available, free of charge, on or through our website as soon as reasonably practicable after such reports and amendments are electronically filed with or furnished to the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov. For additional information about our Company, please refer to other documents we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading “Incorporation of Certain Information by Reference.”

RISK FACTORS

Investing in our securities involves certain risks. Before you invest in any of our debt securities, common stock, preferred stock or warrants, in addition to the other information included in, or incorporated by reference into, this prospectus, you should carefully consider the risk factors contained in Part I, Item 1A under the caption “Risk Factors” and elsewhere in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, as supplemented by the risk factors contained in Part II, Item 1 under the caption “Risk Factors” and elsewhere in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, which are incorporated into this prospectus by reference, as updated by our annual or quarterly reports for subsequent fiscal years or fiscal quarters that we file with the SEC and that are so incorporated. See “Where You Can Find More Information” for information about how to obtain a copy of these documents. You should also carefully consider the risks and other information that may be contained in, or incorporated by reference into, any prospectus supplement relating to specific offerings of securities.

USE OF PROCEEDS

Except as described in any applicable prospectus supplement and in any related free writing prospectus in connection with a specific offering, we currently intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes. General corporate purposes may include research and development costs, expansion of our technology infrastructure and capabilities of our platform, potential strategic acquisitions or licensing of complementary businesses, services or technologies, working capital and capital expenditures. We may temporarily invest the net proceeds in a variety of capital preservation instruments, including investment grade, interest bearing instruments and U.S. government securities, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds. Unless we specify otherwise in a prospectus supplement, we will not receive any cash proceeds from the sale of securities by a selling shareholder.

DIVIDEND POLICY

We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. We do not intend to pay cash dividends to our shareholders in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions, and other factors that our board of directors may deem relevant.

GENERAL DESCRIPTION OF SECURITIES

We and any selling shareholders may offer shares of common or preferred stock, various series of senior or subordinated debt securities, warrants, or units consisting of combinations of the foregoing, in each case from time to time under this prospectus, together with the applicable prospectus supplement, at prices and on terms to be determined by market conditions at the time of offering. This prospectus provides you with a general description of the securities we may offer. At the time we and any selling shareholders offer a particular type or series of securities, we will provide an applicable prospectus supplement describing the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- voting or other rights;
- rates and times of payment of interest, dividends or other payments;
- liquidation preference;
- original issue discount;
- maturity;
- ranking;
- restrictive covenants;
- redemption, conversion, exercise, exchange, settlement or sinking fund terms, including prices or rates, and any provisions for changes to or adjustments in such prices or rates and in the securities or other property receivable upon conversion, exercise, exchange or settlement;
- any securities exchange or market listing arrangements; and
- important U.S. federal income tax considerations.

This prospectus may not be used to offer or sell securities unless accompanied by an applicable prospectus supplement. The applicable prospectus supplement may add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. You should read the prospectus supplement related to any securities being offered.

We and any selling shareholders may sell the securities directly to or through underwriters, dealers or agents. We and our underwriters, dealers or agents reserve the right to accept or reject all or part of any proposed purchase of securities. If we and any selling shareholders do offer securities through underwriters or agents, we will include in the applicable prospectus supplement (i) the names of the underwriters or agents and applicable fees, discounts and commissions to be paid to them; (ii) details regarding over-allotment options, if any; and (iii) net proceeds to us.

The following descriptions are not complete and may not contain all the information you should consider before investing in any securities we and any selling shareholders may offer hereunder; they are summarized from, and qualified by reference to, our amended and restated articles of incorporation (“Articles of Incorporation”), amended and restated bylaws (“Bylaws”) and the other documents referred to in the descriptions, all of which are or will be publicly filed with the SEC, as applicable. See “Where You Can Find More Information.”

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is a summary and does not purport to be complete. It is subject to, and qualified in its entirety by reference to our Articles of Incorporation, Bylaws and seventh amended and restated investors' rights agreement ("Investors' Rights Agreement"), each of which have been filed with the SEC. This description also summarizes relevant provisions of Washington law. We encourage you to read our Articles of Incorporation, Bylaws, Investors' Rights Agreement and the applicable provisions of Washington law for additional information.

General

As of the date of this prospectus, our Articles of Incorporation authorize us to issue 340,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share, all of which shares of preferred stock are undesignated. As of June 30, 2020, 128,233,842 shares of common stock were issued and outstanding and no shares of preferred stock were outstanding.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the shareholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. Our common stock is listed on The Nasdaq Global Select Market under the symbol "ADPT." The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall Street, Canton, Massachusetts 02021.

Preferred Stock

Our board of directors has the authority, without further action by our shareholders (unless required by Nasdaq rules), to issue up to the authorized amount of shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. No shares of preferred stock have been issued or are outstanding as of the date of the filing of this registration statement. If we sell any series of preferred stock under this prospectus, we will file a certificate of designation relating to that series, which will be incorporated by reference into the registration statement of which this prospectus forms a part. The prospectus supplement will describe:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

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- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

Anti-Takeover Effects of our Articles of Incorporation, Bylaws and Washington Law

Our Articles of Incorporation and Bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies

Our Articles of Incorporation provide for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our Articles of Incorporation also provide that directors may be removed only for cause and then only if the number of votes of the holders of the shares entitled to elect the director cast in favor of removing such director exceeds the number of votes cast against removal. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our remaining directors. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for shareholders to change the composition of our board of directors.

Unanimous Written Consent of Shareholders

Washington law limits the ability of shareholders to act by written consent by requiring unanimous written consent for shareholder action to be effective. This limit may lengthen the amount of time required to take shareholder actions and would prevent the amendment of our Articles of Incorporation, our Bylaws or removal of directors by our shareholders without holding a meeting of shareholders.

Meetings of Shareholders

Our Articles of Incorporation and our Bylaws provide that only our board of directors, our Chairperson of our board of directors, our Chief Executive Officer or our President may call special meetings of shareholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of shareholders. Our Bylaws limit the business that may be conducted at an annual meeting of shareholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our Bylaws have established advance notice procedures with regard to shareholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our shareholders. These procedures provide that notice of shareholder proposals must be timely given in writing to our Corporate Secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary of the date that our proxy statement was released to shareholders in connection with the previous year's annual meeting. Our Bylaws specify the requirements as to form and content of all shareholders' notices. These requirements may preclude shareholders from bringing matters before the shareholders at an annual or special meeting.

Amendment to our Articles of Incorporation and Bylaws

Any amendment of our Articles of Incorporation must first be submitted to our shareholders by us or our board of directors, and the amendment of certain articles or sections, including articles or sections relating to who may call special meetings of the shareholders, our board of directors, indemnification of our directors and officers, supermajority voting and amendments to our Bylaws, requires the affirmative vote of at least two-thirds of the outstanding shares entitled to vote on the amendment voting together as a single group. Our Bylaws may be amended by our board of directors, subject to any limitations set forth in our Bylaws, and may also be amended by the affirmative vote of at least two-thirds of the outstanding shares entitled to vote on the amendment voting together as a single group.

Undesignated Preferred Stock

Our Articles of Incorporation provide for authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our shareholders, our board of directors could cause shares of preferred stock to be issued without shareholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent shareholder or shareholder group. In this regard, our Articles of Incorporation grant our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Exclusive Forum

Our Articles of Incorporation provide that, unless we consent in writing to the selection of an alternative forum, the state courts located in King County, Washington (or, if the state courts located within King County, Washington do not have jurisdiction, the federal district court for the Western District of Washington) shall be the sole and exclusive forum for commencing and maintaining any proceeding (1) asserting a claim based on a violation of a duty under the laws of the State of Washington by any of our current or former directors, officers or shareholders in such capacity, (2) commenced or maintained in the right of the corporation, (3) asserting a claim arising pursuant to any provision of the Washington Business Corporation Act (“WBCA”), our Articles of Incorporation or our Bylaws (as either may be amended from time to time) or (4) asserting a claim concerning our internal affairs that is not included in clauses (1) through (3) above, in all cases to the fullest extent permitted by law and subject to the court having personal jurisdiction over the indispensable parties named as defendants. These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction. Our Articles of Incorporation further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, subject to applicable law. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these provisions. Our exclusive forum provision will not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our shareholders will not be deemed to have waived our compliance with these laws, rules and regulations. Although we believe these provisions benefit us by providing increased consistency in the application of Washington law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors, officers and other employees.

Washington Anti-Takeover Law

Washington law imposes restrictions on some transactions between a corporation and significant shareholders. Chapter 23B.19 of the WBCA generally prohibits a target corporation from engaging in specified “significant business transactions” with an “acquiring person.” This statute could prohibit or delay the accomplishment of mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage unsolicited attempts to acquire us. An “acquiring person” is generally defined as a person or group of persons that beneficially owns the voting shares entitled to cast votes comprising 10% or more of the voting power of the target corporation. The target corporation may not engage in “significant business transactions,” as defined in Chapter 23B.19, for a period of five years after the date of the transaction in which the person became an acquiring person, unless (1) the significant business transaction or the acquiring person’s purchase of shares was approved by a majority of the members of the target corporation’s board of directors prior to the share acquisition causing the person to become an “acquiring person,” or (2) the significant business transaction was both approved by the majority of the members of the target corporation’s board of directors and authorized at a shareholder meeting by at least two-thirds of the votes entitled to be cast by the outstanding voting shares (excluding the acquiring person’s shares or shares over which the acquiring person has voting control) at or subsequent to the acquiring person’s share acquisition. “Significant business transactions” include, among other things:

- a merger or share exchange with, disposition of assets to or issuance or redemption of stock to or from, the acquiring person;
- a termination of 5% or more of the employees of the target corporation employed in the State of Washington as a result of the acquiring person’s acquisition of 10% or more of the shares, whether at one time or over the five-year period following the share acquisition;
- a transaction in which the acquiring person is allowed to receive a disproportionate benefit as a shareholder; or
- liquidating or dissolving the target corporation.

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After the five-year period, a “significant business transaction” may occur, as long as it complies with “fair price” provisions specified in the statute or is approved at a meeting of shareholders by a majority of the votes entitled to be counted within each voting group entitled to vote separately on the transaction, not counting the votes of shares as to which the acquiring person has beneficial ownership or voting control. A corporation may not opt out of this statute.

Registration Rights

As of the date of this prospectus, holders of 71,308,008 shares of our common stock, which shares we refer to as “registrable securities,” are entitled to rights with respect to the registration of these registrable securities under the Securities Act. These rights are provided under the terms of the Investors’ Rights Agreement. The Investors’ Rights Agreement includes demand registration rights, short-form registration rights and piggyback registration rights.

All underwriting discounts, selling commissions and stock transfer taxes applicable to the sale of registrable securities pursuant to the Investors’ Rights Agreement shall be borne by the holders of registrable securities participating in such sale. Any additional expenses incurred in connection with exercise of registration rights under the Investors’ Rights Agreement, including all registration, filing and qualification fees, printers’ and accounting fees, and fees and disbursements of our counsel shall be borne by us. We are also responsible for the reasonable fees and disbursements, not to exceed \$100,000, or such greater amount as agreed upon in the applicable underwriting agreement, of one counsel for the selling holders of registrable securities, and any legal expenses incurred by such selling holders in excess of \$100,000 shall be borne by such holders.

Subject to certain exceptions contained in the Investors’ Rights Agreement, we and the underwriters may limit the number of shares included in an underwritten offering by holders of registrable securities to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

Demand Registration Rights

The holders of registrable securities are entitled to demand registration rights under certain conditions. Under the terms of the Investors’ Rights Agreement, we will be required, upon the written request of (i) holders of at least 30% of registrable securities then outstanding or (ii) the Viking Global Entities (so long as the Viking Global Entities remain a holder of at least 550,000 registrable securities), to use our best efforts to file a registration statement on Form S-1 or Form S-3 with respect to the registrable securities identified by the holders initiating such request so long as the anticipated aggregate offering price of such registrable securities pursuant to such registration would be at least \$5.0 million in the aggregate. We are not obligated to effect, or to take any action to effect, any registration pursuant to these demand registration rights (a) during the period that is 30 days before our good faith estimate of the date of filing of, and ending on a date that is 60 days after the effective date of, a registration statement pertaining to an underwritten public offering of our securities or (b) after we have effected five registrations pursuant to these demand registration rights if the initiating holder for at least two of such registrations is one of the Viking Global Entities.

Shelf Registration Rights

Pursuant to the Investors’ Rights Agreement, upon the written request of (i) holders of at least 20% of registrable securities then outstanding or (ii) one of the Viking Global Entities (so long as one of the Viking Global Entities remains a holder of at least 550,000 registrable securities), we will be required to use commercially reasonable efforts to effect a registration with respect to the registrable securities identified by the holders initiating such request by filing either a shelf registration statement on Form S-3 or an evergreen registration statement on Form S-1 with the SEC. We are not obligated to effect, or to take any action to effect, any registration pursuant to these registration rights (i) if the holders of registrable securities intending to sell

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pursuant to such rights propose to sell registrable securities at an aggregate offering price to the public, net of selling expenses, of less than \$2.0 million or (ii) if we furnish to such initiating holders a certificate signed by the chair of our board of directors stating that in the good-faith judgment of our board of directors, after consultation with our outside counsel, it would be materially detrimental to us and our shareholders for such registration to be effected at such time, subject to certain limitations.

An offering or sale of registrable securities pursuant to a shelf registration statement may be initiated at any time by one or more holders of at least 550,000 shares of registrable securities, provided that the minimum market value of registrable securities that such holders propose to sell in such offering must be equal to at least \$1.0 million or such lower amount approved by our board of directors. The right to have such shares registered on a shelf registration statement is further subject to other specified conditions and limitations.

Piggyback Registration Rights

Pursuant to the Investors' Rights Agreement, if we register any of our securities either for our own account or for the account of other security holders, subject to certain exceptions, the holders of registrable securities are entitled to include their shares in the registration.

Expiration of Registration Rights

The demand registration rights, short form registration rights and piggyback registration rights granted to any holder of registrable securities under the Investors' Rights Agreement will terminate upon the earliest to occur of (i) July 1, 2024 or (ii) such time when the holder's registrable securities may be sold without restriction pursuant to Rule 144 within a 90-day period; provided, however, that the demand registration rights, short-form registration rights and piggyback registration rights under the Investors' Rights Agreement of any holder of at least 550,000 shares of registrable securities shall not terminate until such time as such holder holds no registrable securities.

DESCRIPTION OF DEBT SECURITIES

This section describes the general terms and provisions of our debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement or free writing prospectus will describe the specific terms of any debt securities offered through that prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the “indentures,” we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended (the “Trust Indenture Act”). We use the term “trustee” to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including as applicable:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

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- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with shareholders or affiliates;
 - issue or sell stock of our subsidiaries;
 - effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of certain material or special United States ("U.S.") federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- the applicability of the provisions in the indenture on discharge;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

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- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

- if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;
- if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;
- if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

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The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. Subject to the terms of the indentures, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

Subject to the terms of the indentures, a holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

We expect to periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

- to fix any ambiguity, defect or inconsistency in the indenture;
- to comply with the provisions described above under “Description of Debt Securities-Consolidation, Merger or Sale”;
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;

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- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under “Description of Debt Securities—General,” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee;
- to provide for uncertificated debt securities and to make all appropriate changes for such purpose;
- to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or
- to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, subject to the terms of the indenture for any series of debt securities that we may issue or as otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the stated maturity of the series of debt securities;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We plan to issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in denominations of

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\$1,000 and any integral multiple thereof. We may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement or free writing prospectus, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement or free writing prospectus, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement or free writing prospectus the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series. If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable

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prospectus supplement or free writing prospectus, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement or free writing prospectus any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

We expect the indentures and the debt securities to be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement or free writing prospectus. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to any of our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. As of March 31, 2020, we have a warrant to purchase 56,875 shares of common stock outstanding.

We plan to evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including as applicable:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants; any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants; the periods during which, and places at which, the warrants are exercisable;
- the manner of exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement;
- the price or prices at which such units will be issued;
- the applicable United States federal income tax considerations relating to the units;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements. We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification Without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder: (1) to cure any ambiguity in any provisions of the governing unit agreement that differ from those described

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below; (2) to correct or supplement any defective or inconsistent provision; or (3) to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect. We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification With Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would: (1) impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or (2) reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval: (1) if the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or (2) if the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not be Qualified Under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Form, Exchange and Transfer

We will issue each unit in global-i.e., book-entry-form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the

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depository's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

- The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.
- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement. Only the depository will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

SELLING SHAREHOLDERS

We may register securities covered by this prospectus for re-offers and resales by selling shareholders. We may add secondary sales of securities by any selling shareholder by filing a prospectus supplement with the SEC. We may register these securities to permit selling shareholders to resell their securities when they deem appropriate. A selling shareholder may resell all, a portion or none of their securities at any time and from time to time. We may register those securities for sale through an underwriter or other plan of distribution as described in the applicable prospectus supplement.

Selling shareholders may also sell, transfer or otherwise dispose of some or all of their securities in transactions exempt from the registration requirements of the Securities Act. We may pay expenses we incur with respect to the registration of the securities owned by selling shareholders, other than underwriting fees, discounts or commissions, which will be borne by the selling shareholders. We will provide you with a prospectus supplement naming the selling shareholders, the amount of securities to be registered and sold and other terms of the securities being sold by a selling shareholder.

PLAN OF DISTRIBUTION

We and any selling shareholders may offer the securities covered by this prospectus, in and outside the United States (1) through underwriters or dealers, (2) directly to one or more purchasers, including to a limited number of institutional purchasers, to a single purchaser or to our affiliates and shareholders, (3) through agents or (4) through a combination of any of these methods.

If underwriters or dealers are used in the sale, the securities will be acquired by the underwriters or dealers for their own account and may be resold from time to time in one or more transactions, including:

- in one or more transactions at a fixed price or prices, which may be changed from time to time;
- in “at-the-market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- through a market maker or into an existing trading market on an exchange or otherwise;
- at prices related to those prevailing market prices;
- or at negotiated prices.

The applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) will set forth the following information, to the extent applicable:

- the terms of the offering;
- the names of any underwriters, dealers or agents;
- the name or names of any managing underwriter or underwriters;
- the purchase price of the securities;
- the net proceeds from the sale of the securities;
- any delayed delivery arrangements;
- any underwriting discounts, commissions and other items constituting underwriters’ compensation;
- any over-allotment or other options under which underwriters may purchase additional securities;
- any initial public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any commissions paid to agents.

Sale Through Underwriters or Dealers

If any securities are offered through underwriters, the underwriters will acquire the securities for their own account and may resell them from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may offer and sell securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless otherwise provided in the applicable prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions, and the underwriters will be obligated to purchase all of the offered securities if they purchase any of them. In connection with the sale of securities, underwriters may be deemed to have received compensation from us in the form of underwriting discounts or commissions and dealers may receive compensation from the underwriters in the form of discounts or concessions. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

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In order to facilitate the offering of securities, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. Specifically, the underwriters may overallocate in connection with the offering, creating a short position in the securities for their account. In addition, to cover overallocations or to stabilize the price of the shares, the underwriters may bid for, and purchase, shares in the open market. Finally, an underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed shares in transactions to cover syndicate short positions, in stabilization transactions, or otherwise. Any of these activities may stabilize or maintain the market price of the offered securities above independent market levels. The underwriters are not required to engage in these activities, and may discontinue any of these activities at any time.

Some or all of the securities that we or any selling shareholders offer through this prospectus may be new issues of securities with no established trading market. Any underwriters to whom we sell securities for public offering and sale may make a market in those securities, but they will not be obligated to do so and they may discontinue any market making at any time without notice. Accordingly, we cannot assure you of the liquidity of, or continued trading markets for, any securities offered pursuant to this prospectus.

If any securities are offered through dealers, we and any selling shareholders will sell the securities to them as principals. They may then resell those securities to the public at varying prices determined by the dealers at the time of resale.

Direct Sales and Sales Through Agents

We and any selling shareholders may sell the securities directly to purchasers. If the securities are sold directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities, we will describe the terms of any such sales in the applicable prospectus supplement. We and any selling shareholders may also sell the securities through agents designated from time to time. Sales may be made by means of ordinary brokers' transactions on the Nasdaq Global Select Market at market prices, in block transactions and such other transactions as agreed by us and any agent. In the applicable prospectus supplement, we will name any agent involved in the offer or sale of the offered securities, and we will describe any commissions payable to the agent. Unless otherwise provided in the applicable prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

At-the-Market Offerings

To the extent that we and any selling shareholders make sales through one or more underwriters or agents in at-the-market offerings, we will do so pursuant to the terms of a sales agency financing agreement or other at-the-market offering arrangement between us and any selling shareholders, on one hand, and the underwriters or agents, on the other. If we and any selling shareholders engage in at-the-market sales pursuant to any such agreement, we will issue and sell our securities through one or more underwriters or agents, which may act on an agency basis or a principal basis. During the term of any such agreement, we and any selling shareholders may sell securities on a daily basis in exchange transactions or otherwise as we agree with the underwriters or agents. Any such agreement will provide that any securities sold will be sold at prices related to the then prevailing market prices for our securities. Therefore, exact figures regarding proceeds that will be raised or commissions to be paid cannot be determined at this time. Pursuant to the terms of the agreement, we and any selling shareholders may agree to sell, and the relevant underwriters or agents may agree to solicit offers to purchase blocks of our common stock or other securities. The terms of any such agreement will be set forth in more detail in the applicable prospectus supplement.

Remarketing Arrangements

Offered securities may also be offered and sold, if we and any selling shareholders so indicate in the applicable prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a

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redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as our agents. Any remarketing firm will be identified and the terms of its agreements, if any, with us and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters of the offered securities under the Securities Act.

Delayed Delivery Contracts

If we and any selling shareholders so indicate in the applicable prospectus supplement, we may authorize agents, underwriters or dealers to solicit offers by certain institutions to purchase securities from us pursuant to contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement will describe the conditions to those contracts and the commission payable for solicitation of those contracts.

General Information

We and any selling shareholders may have agreements with the agents, dealers, underwriters and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act, or to contribute with respect to payments that the agents, dealers or underwriters may be required to make. Agents, dealers, underwriters and remarketing firms may be customers of, engage in transactions with or perform services for us in the ordinary course of their businesses. We and the selling shareholders may use agents, dealers, underwriters and remarketing firms with whom we have a material relationship. We will describe in the prospectus supplement, naming the agent, dealer, underwriter or remarketing firm, the nature of any such relationship.

Each underwriter, dealer and agent participating in the distribution of any of the securities that are issuable in bearer form will agree that it will not offer, sell or deliver, directly or indirectly, securities in bearer form in the United States or to United States persons, other than qualifying financial institutions, during the restricted period, as defined in United States Treasury Regulations Section 1.163-5(c)(2)(i)(D)(7).

LEGAL MATTERS

DLA Piper LLP (US), Seattle, Washington, our outside counsel, will issue an opinion about the legality of any securities we may offer through this prospectus, unless otherwise indicated in the applicable prospectus supplement. As of the date of this prospectus, partners of DLA Piper LLP (US) beneficially own an aggregate of less than 0.5% of our common stock. If we or a selling shareholder are offering the securities in an underwritten offering, the counsel identified in the related prospectus supplement will pass on certain legal matters for the underwriters.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, as set forth in their report, which is incorporated by reference into this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

8,000,000 Shares

Common Stock



PROSPECTUS

**J.P. Morgan
Cowen**

**Goldman Sachs & Co. LLC
Guggenheim Securities**

**BofA Securities
William Blair**

July 15, 2020
