Filed Pursuant to Rule 424(b)(5)
Registration No. 333-253259

PROSPECTUS SUPPLEMENT
(To the Prospectus Dated February 26, 2021)

3,036,366 Shares of Common Stock

We are offering 3,036,366 shares of our common stock. Our common stock is listed on The Nasdaq Capital Market under the symbol "BNTC." On April 26, 2021, the last reported sale price of our common stock on The Nasdaq Capital Market was $5.59.

The underwriter may offer the shares of common stock from time to time to purchasers directly or through agents, or through brokers in brokerage transactions on the Nasdaq Capital Market, or to dealers in negotiated transactions or in a combination of such methods of sale, or otherwise, at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part.
As of April 26, 2021, the aggregate market value of our outstanding common stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3, or public float, was approximately $44.5 million, based on 4,807,852 shares of outstanding common stock held by non-affiliates on March 23, 2021 and a price of $9.26 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on March 23, 2021. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

We are an "emerging growth company," as that term is used in the Jumpstart Our Business Startups Act of 2012, and, as such, we have elected to comply with certain reduced public company reporting requirements.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page S-20 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

	Per Share of Common Stock	Total
Public offering price	$ 4.25	$12,904,555.50
Underwriting discounts and commissions (1)	$ 0.34	$ 1,032,364.44
Proceeds to us (before expenses)	$ 3.91	$11,872,191.06

(1) We have agreed to reimburse certain expenses of the underwriter, including a management fee equal to 1% of the gross proceeds of the offering, which are not included in the table above. See the section entitled "Underwriting" for additional disclosure regarding underwriting compensation and estimated offering expenses.

We have granted the underwriter an option for a period of 30 days to purchase up to an additional 455,454 shares of our common stock on the same terms as set forth above. If the underwriter exercises its option in full, the total underwriting discounts and commissions payable by us will be $1,187,218.80, and the total proceeds to us, before estimated offering expenses, will be $13,653,016.20.

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

The underwriter expects to deliver shares of common stock to purchasers on or about April 30, 2021.

Sole Book-Running Manager

H.C. Wainwright & Co.

The date of this prospectus supplement is April 27, 2021

Exhibit

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PROSPECTUS SUPPLEMENT

PROSPECTUS

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus dated February 26, 2021, are part of a registration statement onForm S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under the shelf registration process, this prospectus supplement, together with the accompanying prospectus, relate to the offer by us of shares of our common stock to certain investors. We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this "prospectus," we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus supplement or the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates. You should read this prospectus supplement, the accompanying prospectus, the documents and information incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering when making your investment decision.

You should read this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein before making an investment in our securities. See "Documents Incorporated by Reference" and "Where You Can Find More Information" for more information. You should rely only on the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus. We have not authorized anyone to provide you with different information. This prospectus supplement, the accompanying prospectus and the information incorporated herein by reference contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. This document may be used only in jurisdictions where offers and sales of these securities are permitted. You should not assume that information contained in this prospectus, in any supplement to this prospectus, or in any document incorporated by reference is accurate as of any date other than the date on the front page of the document that contains the information, regardless of when this prospectus or a prospectus supplement is delivered or when any sale of our securities occurs.

We further note that the representations, warranties and covenants made by us in any document that is filed as an exhibit to the registration statement of which this prospectus supplement is a part and in 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.

Unless the context otherwise requires, the terms "Benitec," the "Company," "we," "us," "our" and similar terms used in this prospectus refer (i), prior to the Re-domiciliation (as defined herein) to Benitec Biopharma Limited, an Australian corporation, and its subsidiaries, and (ii), following the Re-domiciliation, to Benitec Biopharma Inc., a Delaware corporation, and its subsidiaries (including Benitec Limited). Any references to "Benitec Limited" refer to Benitec Biopharma Limited, an Australian corporation.

Our fiscal year-end is June 30. References to a particular "fiscal year" are to our fiscal year ended June 30 of that calendar year.

INDUSTRY AND MARKET DATA

This prospectus supplement includes information with respect to market and industry conditions and market share from third-party sources or based upon estimates using such sources when available. We believe that such information and estimates are reasonable and reliable. We also believe the information extracted from publications of third-party sources has been accurately reproduced. However, we have not independently verified any of the data from third-party sources. Similarly, our internal research is based upon our understanding of industry conditions, and such information has not been verified by any independent sources.

TRADEMARKS AND TRADENAMES

We have proprietary and licensed rights to trademarks used in this prospectus supplement which are important to our business, many of which are registered under applicable intellectual property laws. These trademarks include:

- BENITEC BIOPHARMA®
- BENITEC®
- GIVING DISEASE THE SILENT TREATMENT®
- SILENCING GENES FOR LIFE®

Solely for convenience, trademarks and trade names referred to in this prospectus appear without the "®" or "™" symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Each trademark, trade name or service mark of any other company appearing in this prospectus is the property of its respective holder.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We claim the protection of the safe harbor contained in the Private Securities Litigation Reform Act of 1995 for these forward looking statements. Our forward-looking statements relate to future events or our future performance and include, but are not limited to, statements concerning our business strategy, future commercial revenues, market growth, capital requirements, new product introductions, expansion plans and the adequacy of our funding. Other statements contained in this prospectus supplement and in the accompanying prospectus and any documents incorporated by reference that are not historical facts are also forward-looking statements. We have tried, wherever possible, to identify forward-looking statements by terminology such as "may," "will," "could," "should," "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and other comparable terminology.

Some of the risks and uncertainties that may cause our actual results, performance or achievements to differ materially from those expressed or implied by forward-looking statements include the following:

- the success of our plans to develop and potentially commercialize our product candidates;
- the timing of the initiation and completion of preclinical studies and clinical trials;
- the timing and sufficiency of patient enrollment and dosing in any future clinical trials;
- the timing of the availability of data from clinical trials;
- the timing and outcome of regulatory filings and approvals;
- unanticipated delays;
- sales, marketing, manufacturing and distribution requirements;
- market competition and the acceptance of our products in the marketplace;
- regulatory developments in the United States;
- the development of novel AAV vectors;
- the plans of licensees of our technology;
- the clinical utility and potential attributes and benefits of ddRNAi and our product candidates;
- including the potential duration of treatment effects and the potential for a "one shot" cure;
- our dependence on our relationships with collaborators and other third parties;
- expenses, ongoing losses, future revenue, capital needs and needs for additional financing;
- the length of time over which we expect our cash and cash equivalents to be sufficient to execute on our business plan;
- our intellectual property position and the duration of our patent portfolio;
- the impact of local, regional, and national and international economic conditions and events; and
- the impact of the current COVID-19 pandemic, the disease caused by theSARS-CoV-2 virus, which may adversely impact our business and preclinical and future clinical trials;

as well as other risks detailed under the caption "Risk Factors" in this prospectus supplement, the accompanying prospectus, and in our reports filed with the SEC.

We caution investors that any forward-looking statements presented in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein or therein, or those that we may make orally or in writing from time to time, are based upon management's beliefs and assumptions and are made based on information available to us as of the time made. Such statements are based on assumptions and the actual outcome will be affected by known and unknown risks, trends, uncertainties and factors that are beyond our control or ability to predict. Although we believe that our assumptions are reasonable, they are not guarantees of future performance and some will inevitably prove to be incorrect. As a result, our actual future results can be expected to differ from our expectations, and those differences may be material. Accordingly, investors should use caution in relying on past forward-looking statements, which are based on known results and trends at the time they are made, to anticipate future results or trends. Except as required by law, we undertake no obligation to publicly update or revise any forward-looking statements included or incorporated by reference in this prospectus supplement or the accompanying prospectus or to update the reasons why actual results could differ from those contained in such statements, whether as a result of new information, future events or otherwise, except to the extent required by federal securities laws. Any investor in us should consider all risks and uncertainties disclosed in our filings with the SEC described below under the heading "Where You Can Find More Information," all of which are accessible on the SEC's website at www.sec.gov.

All forward-looking statements included herein or in documents incorporated herein by reference are expressly qualified in their entirety by the cautionary statements contained or referred to elsewhere in this prospectus supplement.

SUMMARY

This summary highlights information contained in other parts of this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, including our consolidated financial statements and the related notes, and the information set forth under the sections titled "Risk Factors," as well as those risk factors included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, our Quarterly Report on Form10-Q for the fiscal quarter ended December 31, 2020, and any subsequent Quarterly Report on Form 10-Q. Some of the statements in this prospectus and the documents incorporated by reference herein constitute forward-looking statements that involve risks and uncertainties. See the information set forth under the section "Cautionary Note Regarding Forward-Looking Statements."

Company Overview

We endeavor to become the leader in discovery, development, and commercialization of therapeutic agents capable of addressing significant unmet medical need via the application of the silence and replace approach to the treatment of genetic disorders.

Benitec Biopharma, Inc. ("Benitec" or the "Company" or in the third person, "we" or "our") is a development-stage biotechnology company focused on the advancement of novel genetic medicines with headquarters in Hayward, California. The proprietary platform, called DNA-directed RNA interference, or ddRNAi, combines RNA interference, or RNAi, with gene therapy to create medicines that facilitate sustained silencing of disease-causing genes following a single administration. The Company is developing ddRNAi-based therapeutics for chronic and life-threatening human conditions including Oculopharyngeal Muscular Dystrophy (OPMD), and Chronic Hepatitis B.

BB-301 is the most advanced ddRNAi-based genetic medicine currently under development by Benitec. BB-301 is an internally optimized, adeno-associated virus ("AAV")-based gene therapy agent that is designed to silence the expression of mutated, disease-causing genes (to slow, or halt, the underlying mechanism of disease progression) and to replace the mutant genes with normal, "wildtype" genes (to drive restoration of function in diseased cells). This fundamental approach to disease management is called "silence and replace" and this biological mechanism offers the potential to restore the underlying physiology of the treated tissues and, in the process, improve treatment outcomes for patients suffering from the chronic and, potentially, fatal effects of Oculopharyngeal Muscular Dystrophy (OPMD). BB-301 has been granted Orphan Drug Designation in the United States and the European Union.

Through the combination of the targeted gene silencing effects of RNAi and the durable transgene expression achievable via the use of modified viral vectors, the silence and replace approach has the potential to produce long-term silencing of disease-causing genes along with simultaneous replacement of wild type gene function following a single administration of the proprietary genetic medicine. We believe this novel attribute of the investigational agents under development by Benitec may facilitate the achievement of robust clinical activity while greatly reducing the dosing frequencies traditionally expected for medicines employed for the management of chronic diseases. Additionally, the establishment of chronic gene silencing and gene replacement may significantly reduce the risk of patient non-compliance during the course of medical management of potentially fatal clinical disorders.

We will require additional financing to advance our product candidates through key inflection points.

Our Strengths

We believe that the combination of our proprietary ddRNAi technology and our deep expertise in the design and development of genetic medicines, and specifically ddRNAi-based therapeutics, will enable us to achieve and maintain a leading position in gene silencing and gene therapy for the treatment of human disease. Our key strengths include:

- A first mover advantage for ddRNAi-based therapeutics;
- A proprietary ddRNAi-based silence and replace technology platform that may potentially enable the serial development of single-administration therapeutics capable of facilitating sustained, long-term silencing of disease-causing genes and concomitant replacement of wildtype gene function;
- A proprietary AAV vector technology which improves the endosomal escape capability of virus produced in insect cells using a baculovirus system. This technology has broad application in AAV-based gene therapies;
- The capabilities to drive the development of a pipeline of programs focused on chronic diseases with either large patient populations, including Chronic Hepatitis B virus infection, or rare diseases, which may potentially support the receipt of Orphan Drug Designation, including OPMD; and
- A growing portfolio of patents protecting improvements to our ddRNAi, and silence and replace, technology and product candidates through at least 2036, with additional patent life anticipated through at least 2040.

Our Strategy

We endeavor to become the leader in discovery, development, and commercialization of therapeutic agents capable of addressing significant unmet medical need via the application of the silence and replace approach to the treatment of genetic disorders. We apply the following general strategy to drive the Company towards these goals:

- Selectively develop proprietary and partnered programs; and
- Continue to explore and secure research and development partnerships with global biopharmaceutical companies supported by the differentiated nature of our scientific platform and intellectual property portfolio.

Our senior leadership team will continue to explore partnership opportunities with global biopharmaceutical companies, as we expect that the unique attributes of the proprietary ddRNAi and silence and replace approaches, and the breadth of potential clinical indications amenable to our proprietary methods, could support the formation of collaborations over a broad range of diseases with significant unmet medical need.

We seek to actively protect our intellectual property and proprietary technology. These efforts are central to the growth of our business and include:

- Seeking and maintaining patents claiming our ddRNAi and silence and replace technologies, modified AAV vectors and manufacture processes, and other inventions relating to our specific products in development or that are otherwise commercially and/or strategically important to the development of our business;
- Protecting and enforcing our intellectual property rights; and
- Strategically licensing intellectual property from third parties to advance development of our product candidates.

Our Technology—ddRNAi and Silence and Replace

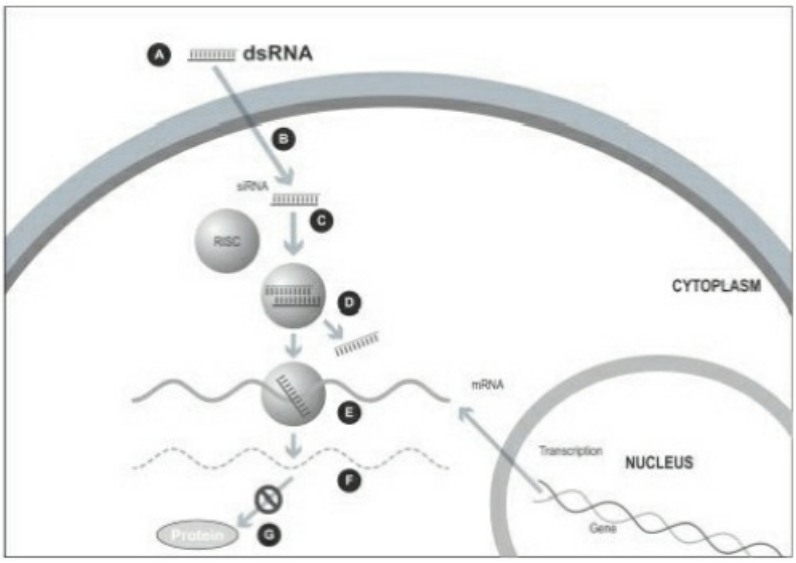
Our proprietary technology platforms are designated as DNA-directed RNA interference, or ddRNAi, and "silence and replace." ddRNAi is designed to produce long-term silencing of disease-causing genes, by combining RNA interference, or RNAi, with viral delivery agents typically associated with the field of gene therapy (i.e. viral vectors). Modified AAV vectors are employed to deliver genetic constructs that encode short hairpin RNAs that are, then, serially expressed and processed, to produce small interfering RNA, or siRNA, molecules within the transduced cell for the duration of the life of the target cell. These newly introduced siRNA molecules drive long-term, and potentially permanent, silencing of the expression of the disease-causing gene. The silence and replace approach further bolsters the biological benefits of long-term silencing of disease-causing genes by incorporating multifunctional genetic constructs within the modified AAV vectors to create an AAV-based gene therapy agent that is designed to both silence the expression of mutated, disease-causing genes (to slow, or halt, the underlying mechanism of disease progression) and to, simultaneously, replace the mutant genes with normal, "wildtype" genes (to drive restoration of function in diseased cells). This fundamentally distinct approach to disease management offers the potential to restore the underlying physiology of the treated tissues and, in the process, improve treatment outcomes for patients suffering from the chronic and, potentially, fatal effects of diseases like Oculopharyngeal Muscular Dystrophy (OPMD).

Traditional gene therapy is defined by the introduction of an engineered transgene to correct the pathophysiological derangements derived from mutated or malfunctioning genes. Mutated genes can facilitate the intracellular production of disease-causing proteins or hamper the production of critical, life-sustaining, proteins, and the introduction of a new transgene can facilitate the restoration of production of normal proteins within the diseased cell, thus, restoring natural biological function. Critically, the implementation of this traditional method of gene therapy cannot eliminate the expression, or the potential deleterious effects of, the underlying mutant gene (as mutant proteins may be continually expressed and aggregate or drive the aggregation of other native proteins within the diseased cell). In this regard, the dual capabilities of the proprietary silence and replace approach to silence a disease-causing gene via ddRNAi and simultaneously replace the wildtype activity of a mutant gene via the delivery of an engineered transgene could facilitate the development of differentially efficacious treatments for a range of genetic disorders.

Overview of RNAi and the siRNA Approach

The mutation of a single gene can cause a chronic disease via the resulting intracellular production of a disease-causing protein (i.e. an abnormal form of the protein of interest), and many chronic and/or fatal disorders are known to result from the inappropriate expression of a single gene or multiple genes. In some cases, genetic disorders of this type can be treated exclusively by "silencing" the intracellular production of the disease-causing protein through well-validated biological approaches like RNA interference ("RNAi"). RNAi employs small nucleic acid molecules to activate an intracellular enzyme complex, and this biological pathway temporarily reduces the production of the disease-causing protein. In the absence of the disease-causing protein, normal cellular function is restored and the chronic disease that initially resulted from the presence of the mutant protein is partially or completely resolved. RNAi is potentially applicable to over 20,000 human genes and a large number of disease-causing microorganism-specific genes.

Figure 1. The siRNA Approach



A small double stranded RNA, or dsRNA, molecule (A, Figure 1), comprising one strand known as the sense strand and another strand known as the antisense strand, which are complementary to each other, is synthesized in the laboratory. These small dsRNAs are called small interfering RNAs, or siRNAs. The sequence of the sense strand corresponds to a short region of the target gene mRNA. The siRNA is delivered to the target cell (B, Figure 1), where a group of enzymes, referred to as the RNA-Induced Silencing Complex, or RISC, process the siRNA (C, Figure 1), and one of the strands (usually the sense strand) is released (D, Figure 1). RISC uses the antisense strand to find the mRNA that has a complementary sequence (E, Figure 1) leading to the cleavage of the target mRNA (F, Figure 1). As a consequence, the traditional synthetic output of the mRNA (protein production) does not occur (G, Figure 1). Several companies, including Alnylam Pharmaceuticals Inc. (“Alnylam”), Arbutus Biopharma Corp (“Arbutus”), and Dicerna Pharmaceuticals Inc. (“Dicerna”), utilize this siRNA-based approach in their RNAi product candidates.

Importantly, many genetic disorders are not amenable to the traditional gene silencing approach outlined in Figure 1, as the diseased cells may produce a mixture of the wildtype protein of interest and the disease-causing, mutant variant of the protein, and the underlying genetic mutation, due to the length of the nucleic acid sequence comprising the mutation or the molecular characteristics of the component nucleotides, may not allow for selective targeting of the disease-causing variant of the protein through the use of siRNA-based approaches exclusively. In these cases, it is extraordinarily difficult to selectively silence the disease-causing protein without simultaneously silencing the wildtype intracellular protein of interest whose presence is vital to the conduct of normal cellular functions.

Our proprietary silence and replace technology utilizes the unique specificity and robust gene silencing capabilities of RNAi while overcoming many of the key limitations of siRNA-based approaches to disease management.

Our Approach to the Treatment of Genetic Diseases—ddRNAi and Silence and Replace

Our proprietary silence and replace approach to the treatment of genetic diseases combines RNAi with wildtype gene replacement to drive sustained silencing of disease-causing genes and concomitant restoration of functional wildtype genes following a single administration of the therapeutic agent. Benitec employs ddRNAi in combination with classical gene therapy (i.e. transgene delivery via viral vectors) to overcome several of the fundamental limitations of RNAi.

The silence and replace approach to the treatment of genetic disorders employs adeno-associated viral vectors ("AAVs") to deliver genetic constructs which may, after a single administration to the target tissues:

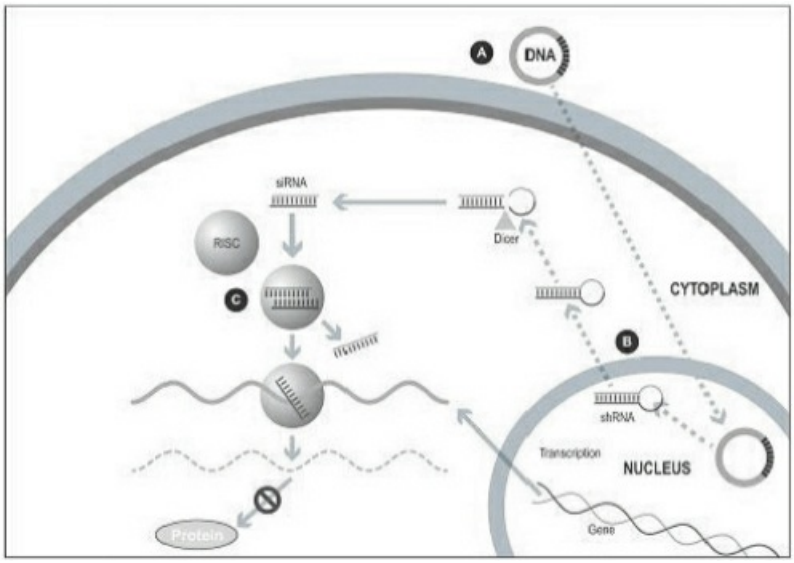
- Chronically express RNAi molecules inside of the target, diseased, cells (to serially silence the intracellular production of mutant, disease-causing, protein and the wildtype protein of interest);
- Simultaneously drive the expression of a wildtype variant of the protein of interest (to restore native intracellular biological processes); and
- AAV vectors can accommodate the multi-functional DNA expression cassettes containing the engineered wildtype transgenes and the novel genes encoding short hairpinRNA/microRNA molecules (shRNA/miRNA) that are required to support the development of therapeutic agents capable of the achievement of the goals of the silence and replace approach to therapy.

Our silence and replace technology utilizes proprietary DNA expression cassettes to foster continuous production of gene silencing shRNAs and wildtype proteins (via expression of the wildtype transgene). A range of viral and non-viral gene therapy vectors can be used to deliver the DNA construct into the nucleus of the target cell and, upon delivery, shRNA molecules are expressed and subsequently processed by intracellular enzymes into siRNA molecules that silence the expression of the mutant, disease causing protein (Figure 2).

In the silence and replace approach (Figure 2):

- A DNA construct is delivered to the nucleus of the target cell by a gene therapy vector (A) such as an AAV;
- Once inside of the nucleus, the DNA construct drives the continuous production of shRNA molecules (B) which are processed by an enzyme called Dicer into siRNAs (C); and
    - The processed siRNA is incorporated into RISC and silences the target gene using the same mechanism shown in Figure 1.
- When the DNA expression cassette is also comprised of a wildtype transgene, upon entry of the DNA construct into the nucleus of the target cell via the use of the AAV vector, the DNA construct also drives the continuous production of wildtype protein (to restore native intracellular biological processes).

Figure 2. The Silence and Replace Approach



Our Pipeline

The following table sets forth our current product candidates and their development status:

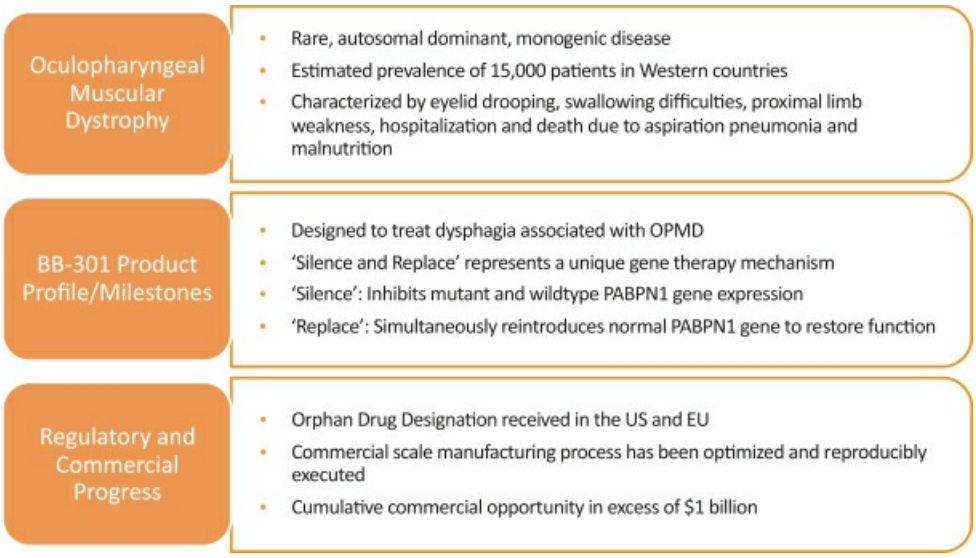
Table 1. Pipeline: Oculopharyngeal Muscular Dystrophy and Chronic Hepatitis B Virus Infection

Program	Delivery	Discovery	Preclinical	IND-Enabling	Early stage clinical (IND – Phase 2)	Late stage clinical (Phase 2 – Phase 3)	Commercial Rights
Proprietary Pipeline Assets with Peer-Reviewed Proof-of-Concept							
OPMD BB-301	ddRNAi Intramuscular						*Global*
HBV BB-103	ddRNAi Systemic						*Global*

BB-301

BB-301 is a late-stage nonclinical investigational agent currently in development for the treatment of Oculopharyngeal Muscular Dystrophy.BB-301 is the lead pipeline program for Benitec, and IND-enabling studies are currently being conducted. A summary of theBB-301 program is provided in Figure 3.

Figure 3. Overview of the BB-301 Program



BB-301 is a first-in-class genetic medicine employing the "silence and replace" approach for the treatment of OPMD. OPMD is a chronic, life-threatening genetic disorder affecting approximately 15,000 patients in the United States, Canada, Western Europe, and Israel. OPMD is caused by a mutation in the gene encoding poly(A) binding protein nuclear 1 (PABPN1). Patients with OPMD lose the ability to swallow liquids and solids, and the natural history of the disorder is characterized by chronic malnutrition, aspiration, and fatal episodes of aspiration pneumonia.

Currently, no therapeutic agents are approved for the treatment of OPMD. Additionally, no surgical interventions capable of altering the long-term natural history of OPMD are available. BB-301 has received Orphan Drug Designation in the United States and the European Union which provides commercial exclusivity independent of intellectual property protection. While OPMD is a rare disorder, the commercial opportunity for a safe and efficacious therapeutic agent in this clinical indication exceeds $1 billion over the course of the commercial life of the product.

Benitec has previously outlined the core IND-enabling studies required by global regulatory agencies to support the initiation ofBB-301 clinical trials in OPMD patients, and these IND-enabling studies include a BB-301 Pilot Dosing Study (the "Pilot Dosing Study") in large animals and a classical 12-week GLP Toxicology and Biodistribution Study. BB-301 is directly injected into the pharyngeal muscles known to underlie the morbidity and mortality characterizing the natural history of OPMD. Against this backdrop, Benitec recently conducted the BB-301 Pilot Dosing Study in Beagle dog subjects to demonstrate that direct intramuscular injection of BB-301 via the use of a proprietary dosing device in an open surgical procedure could safely achieve the following goals:

- Biologically significant, highly-consistent, dose-dependent levels ofBB-301 tissue transduction (i.e., delivery of the multi-functional BB-301 genetic construct into the target pharyngeal muscle cells);
- Durable, broad-based, dose-dependent expression within the pharyngeal muscle cells of the three distinct genes comprising theBB-301 gene construct; and

- Durable and biologically significant levels of target gene knock-down (i.e., inhibition of the expression of the gene of interest) within the pharyngeal muscle cells.

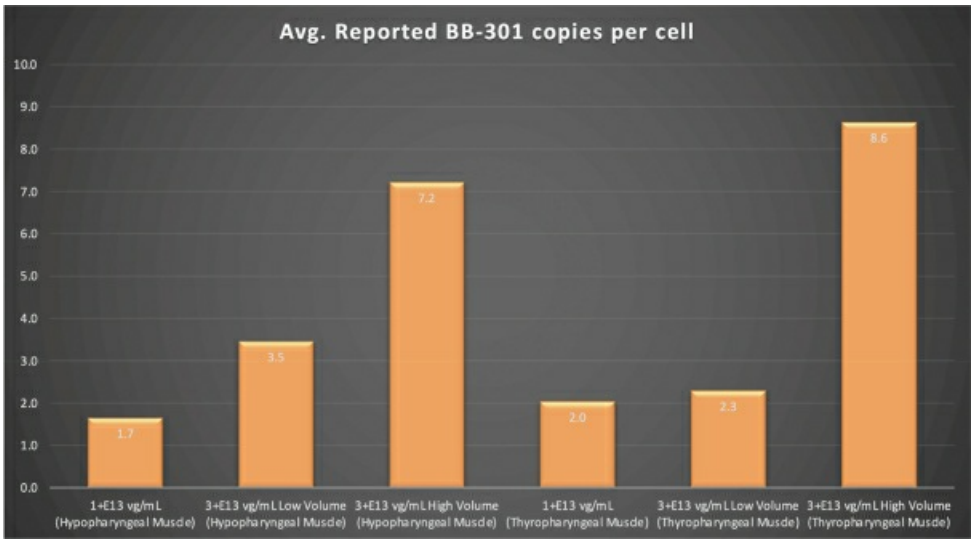
The Pilot Dosing Study evaluated the safety and biological activity of two concentrations of BB-301 (1.0+E13 vg/mL and 3.0+E13 vg/mL) across three distinct doses (1.0+E13 vg/mL, 3.0+E13 vg/mL with a low injection volume, and 3.0+E13 vg/mL with a high injection volume) following direct intramuscular injection into the Hypopharyngeus (HP) muscles and the Thyropharyngeus (TP) muscles of Beagle dogs via the use of a proprietary delivery device employed in an open surgical procedure. The HP muscle in Beagle dogs corresponds to the Middle Pharyngeal Constrictor muscle in human subjects, and the TP muscle in Beagle dogs corresponds to the Inferior Pharyngeal Constrictor muscle in human subjects. BB- 301 was injected only on Day 1 of the Pilot Dosing Study, and the corresponding canine pharyngeal muscles were harvested for analysis after 8 weeks on study. BB-301 dosing was carried out by both a veterinary surgeon and a practicing Otolaryngologist who has extensive experience with the provision of palliative surgical care for OPMD patients.

Further data analyses are ongoing for the canine subjects treated in the BB-301 Pilot Dosing Study, and the interim data-points highlighted here are derived from completed analyses of pharyngeal muscle tissues isolated from the 6 Beagle dog subjects to date (of the 24-subject study population). The data-set and the initial conclusions will be updated as additional subjects are analyzed.

The key preliminary results are summarized here:

Regarding Pharyngeal Muscle Tissue Transduction Levels Observed for BB-301 (Figure 4):

Figure 4. Pharyngeal Muscle Tissue Transduction Levels for BB-301



Regarding Gene Expression Levels Observed for BB-301 Within the Pharyngeal Muscle Tissues (Figure 5, Figure 6, Figure 7):

- BB-301 encodes two distinct siRNA species (i.e., siRNA13 and siRNA17) which are each, independently, capable of inhibiting (i.e., "silencing") the expression of the mutant form of the

PABPN1 protein and the wildtype (i.e., endogenous) form of the PABPN1 protein (importantly, the mutant form of the PABPN1 protein underlies the development and progression of OPMD).

- BB-301 also codes for a wildtype version of the PABPN1 protein whose intracellular expression is unaffected by the inhibitory activities of siRNA13 and siRNA17, and this codon optimized PABPN1 protein (i.e., coPABPN1) serves to replenish the endogenous form of the PABPN1 protein and to replace the mutant form of PABPN1 that underlies the development and progression of OPMD in diseased tissues.
- For comparative purposes, is should be noted that the average level of expression for wild type PABPN1 within the pharyngeal muscle cells of Beagle dogs is 4.5 copies per cell to 7.8 copies per cell.

Figure 5. siRNA13 Expression Levels for BB-301 within Pharyngeal Muscle Tissues

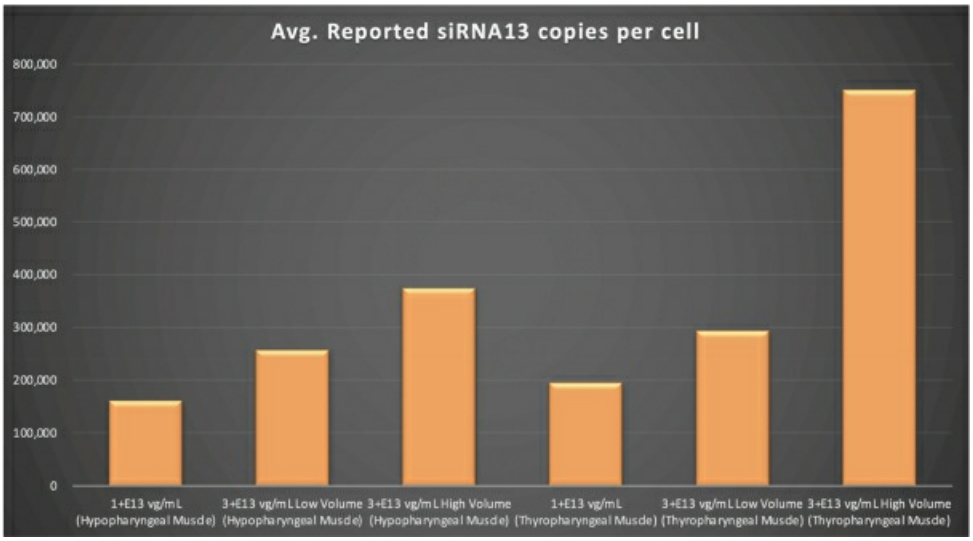


Figure 6. siRNA17 Expression Levels for BB-301 within Pharyngeal Muscle Tissues

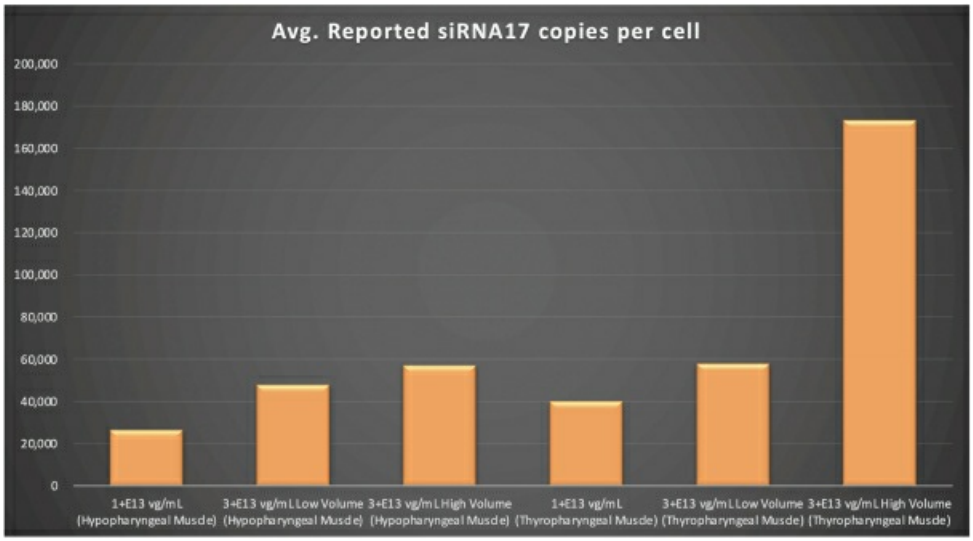
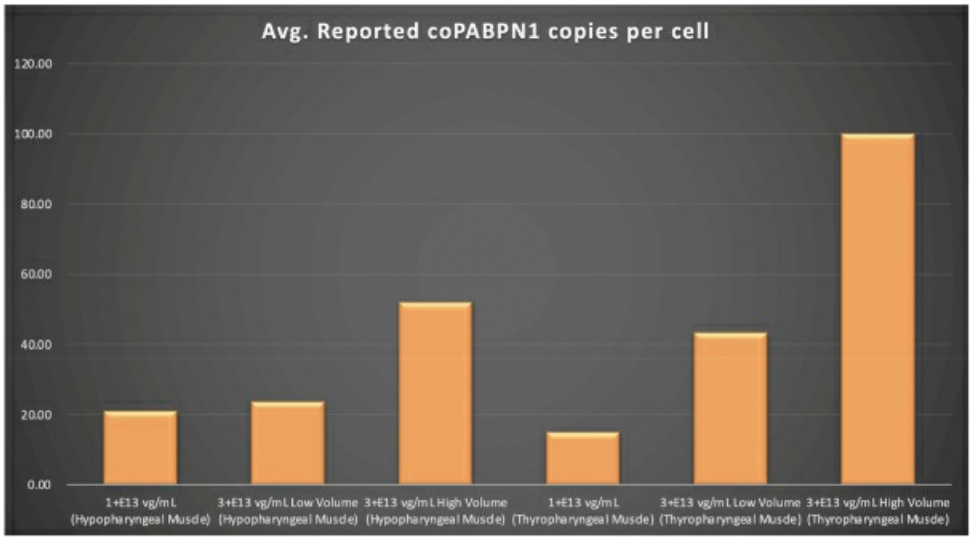


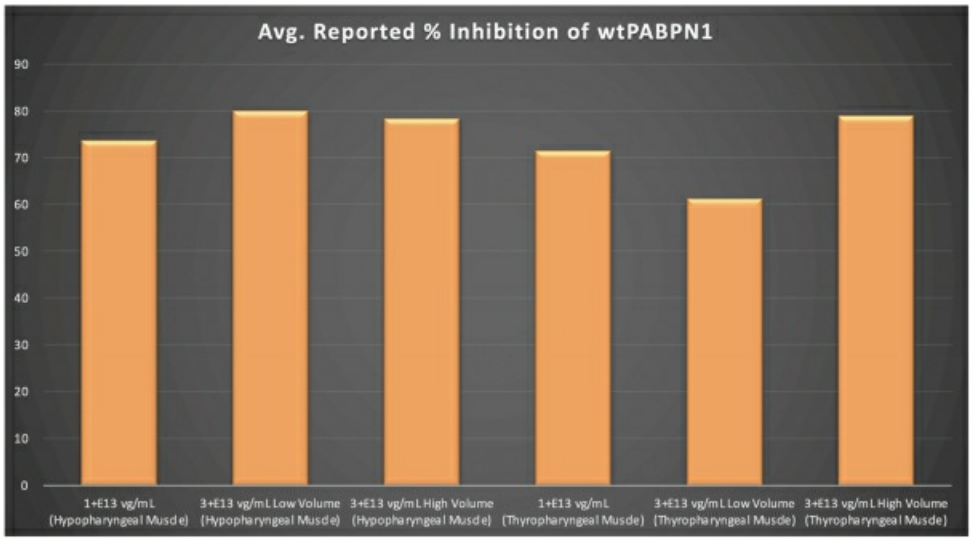
Figure 7. coPABPN1 Expression Levels for BB-301 within Pharyngeal Muscle Tissues



Regarding WildType PABPN1 Silencing (i.e. target "knock-down") Observed for BB-301 Within the Pharyngeal Muscle Tissues (Figure 8):

- As noted above, BB-301 encodes two distinct siRNA species (i.e. siRNA13 and siRNA17) which are each, independently, capable of inhibiting (i.e., "silencing") the expression of all forms of the PABPN1 protein (siRNA13 and siRNA17 silence the expression of both wildtype PABPN1 wtPABPN1 and mutant PABPN1).
- While the Beagle dog subjects treated in the current BB-301 Pilot Dosing Study do not express mutant PABPN1, the level of BB-301-driven gene silencing for the PABPN1 target can be accurately assessed due to the equivalent inhibitory effects of siRNA13 and siRNA17 on both wtPABPN1 and mutant PABPN1.
- Thus, the wtPABPN1 silencing activity observed in the current BB-301 Pilot Dosing Study serves as a surrogate for the activity that would be anticipated in the presence of mutant PABPN1.
- BB-301 has been evaluated in prior non-clinical studies in animals that express mutant PABPN1 and manifest the key signs and symptoms of OPMD and, in these animal models of OPMD, the achievement of PABPN1 silencing levels of 31% inhibition or higher led to complete resolution of OPMD disease symptoms and correction of the histological hallmarks of OPMD.

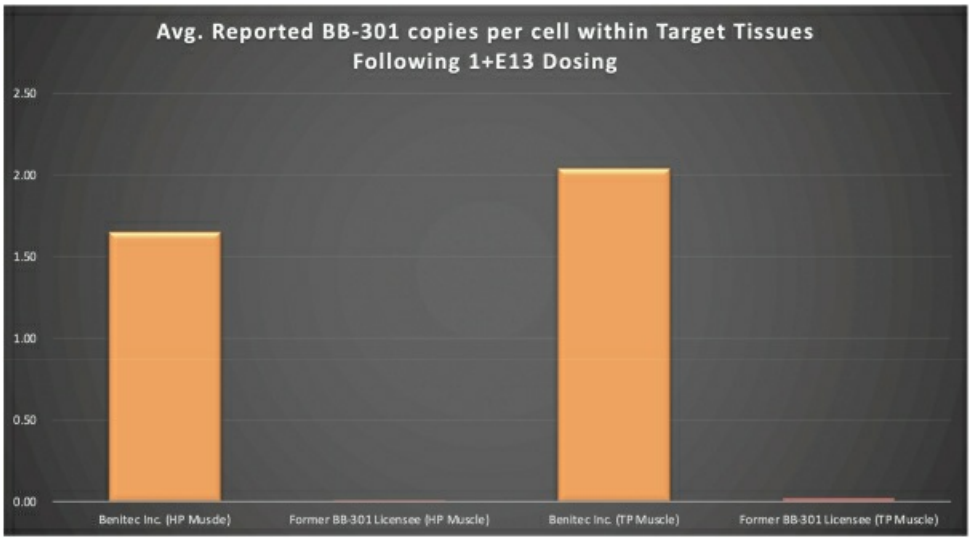
Figure 8. PABPN1 Silencing (i.e. "target knock-down") within Pharyngeal Muscle Tissues



Finally, it is critical to highlight the key methodological distinctions between the current BB-301 Pilot Dosing Study in Beagle dogs conducted by Benitec and the prior Beagle dog dosing study carried out independently by the previous BB-301 licensee of Benitec. The BB-301 dosing study conducted by the prior BB-301 licensee employed non-ideal routes and methods of BB-301 administration to the target pharyngeal muscle tissues and employed similarly limited analytical methods at the completion of the dosing phase of the study. The Benitec team worked to optimize the route and method of administration of BB-301 and to refine the core analytical methods employed following the completion of dosing.

Following these methodological improvements, Benitec demonstrated a 248-fold improvement (+24,650%) in BB-301 transduction of the HP muscle and a 111-fold improvement (+11,027%) in BB-301 transduction of the TP muscle relative to the levels of BB-301 transduction observed by the previous BB-301 licensee (Figure 9).

Figure 9. Impact of Benitec-Initiated Methodological Improvements to the BB-301 Large Animal Study Design on the Relative Pharyngeal Muscle Tissue Transduction Levels Achieved



Benitec has scheduled a Scientific Advice Meeting in France in May 2021 to review the interim data and the Phase 1 clinical trial design, and the Company continues to plan for the initiation of the first-in-human clinical study of BB-301 in OPMD patients in 2022.

BB-103

BB-103 has demonstrated robust nonclinical activity during the evaluation of this agent for the treatment of Chronic Hepatitis B Virus infection. Benitec is currently seeking strategic partners to advance BB-103 through IND-enabling studies.

Risk Factors

An investment in our securities involves a high degree of risk. Any of the factors set forth herein under "Risk Factors" and the risk factors included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, our Quarterly Report on Form10-Q for the fiscal quarter ended December 31, 2020, and any subsequent Quarterly Report on Form 10-Q may limit our ability to successfully execute our business strategy. You should carefully consider all of the information set forth in this prospectus supplement, the accompanying prospectus, and in the documents incorporated by reference, and, in particular, should evaluate the specific factors set forth under "Risk Factors" in deciding whether to invest in our securities. These risk factors include, among others:

- We have incurred significant net losses and anticipate that we will continue to incur significant net losses for the foreseeable future. We may never achieve or maintain profitability;

- We have never generated any revenue from product sales and may never be profitable;
- Even if this offering is successful, we will need to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit or discontinue our product development efforts or other operations;
- Currently, no product candidates utilizing ddRNAi technology have been approved for commercial sale, and our approach to the development of ddRNAi technology may not result in safe, effective or marketable products;
- We are early in our product development efforts and have only one product candidate in IND-enabling preclinical studies. All of our other current product candidates are still in earlier stages preclinical development. We may not be able to obtain regulatory approvals for the commercialization of some or all of our product candidates;
- Issues which may impact ddRNAi delivery into the cell could limit our ability to develop and commercialize product candidates;
- If other companies develop technologies or product candidates for our target disease indications more rapidly than we do or if their technologies, including delivery technologies, are more effective, our ability to develop and successfully commercialize product candidates may be compromised; and
- If we are unable to obtain or protect intellectual property rights related to our product candidates, we may not be able to obtain exclusivity for our product candidates or prevent others from developing similar competitive products.

Recent Developments

COVID-19

In December 2019, an outbreak of a novel strain of coronavirus was identified in Wuhan, China. This virus continues to spread globally, has been declared a pandemic by the World Health Organization and has spread to nearly every country, including Australia and the United States. The impact of this pandemic has been and will likely continue to be extensive in many aspects of society, which has resulted in and will likely continue to result in significant disruptions to businesses and capital markets around the world. The extent to which the coronavirus impacts us will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus and the actions to contain the coronavirus or treat its impact, among others.

Certain of our research and development efforts are conducted globally, including the ongoing development of our silence and replace therapeutic for the treatment of Oculopharyngeal Muscular Dystrophy (OPMD), and will be dependent upon our ability to initiate preclinical and clinical studies despite the ongoing COVID-19 pandemic. As we continue to actively advance our preclinical programs, including our ongoing tissue transduction studies for BB-301, we are in close contact with our principal investigators and preclinical trial sites, which are primarily located in France, and are assessing the impact of COVID-19 on our studies and the expected development timelines and costs of all of our product candidates, on an ongoing basis. In light of recent developments relating to the COVID-19 global pandemic, the focus of healthcare providers and hospitals on fighting the virus, and consistent with the FDA's updated industry guidance for conducting clinical trials issued on March 18, 2020, we have experienced delays to the original timeline regarding the initiation and anticipated completion of the ongoing BB-301 IND-enabling development work. The initiation of the BB-301 Pilot Dosing Study, which represents a key component of the IND-enabling work, was delayed by several months, however, the study was initiated and the dosing of the initial preclinical cohorts proceeded without incident. Dosing has now concluded in the BB-301 Pilot Dosing Study. We will continue to evaluate the impact of the COVID-19 pandemic on our business and expect to reevaluate the timing of our anticipated preclinical and clinical milestones as we learn more and the impact of COVID-19 on our industry becomes more clear.

We had also implemented work-from-home measures for the majority of our employees between March 2020 and June 2020, resulting in a reduction of laboratory work and a halt of non-essential business travel. As we transition our employees back to our premises, there is a risk that COVID-19 infections occur at our offices or laboratory facilities and significantly affect our operations. Additionally, if any of our critical vendors are impacted, our business could be affected if we become unable to timely procure essential equipment, supplies or services in adequate quantities and at acceptable prices.

Corporate Information

We were incorporated as a Delaware corporation on November 22, 2019 and completed the Re-domiciliation on April 15, 2020. Our predecessor, Benitec Limited, was incorporated under the laws of Australia in 1995. Our stock is traded on The Nasdaq Capital Market under the symbol "BNTC." Our principal executive offices are located at 3940 Trust Way, Hayward, California 94545. Our telephone number is (510) 780-0819, and our Internet website is www.benitec.com. The information on, or that can be accessed through, our website is not part of this prospectus and is not incorporated by reference herein.

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

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (JOBS Act). We will remain an emerging growth company until the earliest to occur of: the last day of the fiscal year in which we have more than $1.07 billion in annual revenue; the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates; the issuance, in any three-year period, by us of more than $1.0 billion in non-convertible debt securities; and June 30, 2021. As a result of this status, we have taken advantage of reduced reporting requirements in this prospectus and may elect to take advantage of other reduced reporting requirements in our future filings with the SEC. In particular, in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, we have not included all of the executive compensation related information that would be required if we were not an emerging growth company or a smaller reporting company, as discussed below. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until they would apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies that are not emerging growth companies. We have relied on the other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act.

We are also a "smaller reporting company" and will remain a smaller reporting company while either (i) the market value of our stock held by non-affiliates was less than $250 million as of the last business day of our most recently completed second fiscal quarter or (ii) our annual revenue was less than $100 million during our most recently completed fiscal year and the market value of our stock held by non-affiliates was less than $700 million as of the last business day of our most recently completed second fiscal quarter. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies, including many of the same exemptions from disclosure requirements as those that are available to emerging growth companies, such as reduced disclosure obligations regarding executive compensation in our registration statements, prospectus and our periodic reports and proxy statements. For so long as we remain a smaller reporting company, we are permitted and intend to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not smaller reporting companies.

THE OFFERING

Common stock offered by us	3,036,366 shares of common stock.
Common stock to be outstanding immediately following this offering	7,854,416 shares (or 8,309,870 shares if the underwriter exercises in full its option to purchase additional shares).
Option to purchase additional shares	We have granted the underwriter a 30-day option to purchase an aggregate of up to 455,454 additional shares of our common stock from us at the public offering price per share, less the underwriting discounts and commissions. The underwriter may exercise its option to acquire additional shares for the sole purpose of covering over-allotments. See "Underwriting."
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $11.3 million, after deducting the underwriting discount and commission and estimated offering expenses payable by us. We intend to use the net proceeds from this financing for the continued advancement of development activities for our product pipeline, general corporate purposes, and strategic growth opportunities. See "Use of Proceeds."
Risk factors	An investment in our securities involves a high degree of risk. You should read the "Risk Factors" section of this prospectus supplement and in the documents incorporated by reference for a discussion of factors to consider carefully before deciding to invest in our securities.
Nasdaq symbol	"BNTC."

The number of shares of common stock to be outstanding after this offering is based on 4,818,050 shares of common stock outstanding at April 26, 2021 and excludes as of such date the following:

- 587,290 shares of common stock issuable upon exercise of stock options outstanding as of April 26, 2021 at a weighted-average exercise price of $7.64 per share;
- 107,098 shares of common stock issuable upon the exercise of warrants exercisable for shares of common stock outstanding as of April 26, 2021 at a weighted-average exercise price of $10.50 per share; and
- 174,454 shares of common stock reserved for issuance under the Company's Benitec Biopharma Inc. 2020 Equity and Incentive Compensation Plan.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks and uncertainties described below, as well as those risk factors included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, our Quarterly Report on Form10-Q for the fiscal quarter ended December 31, 2020, and any subsequent Quarterly Report on Form 10-Q, together with all of the other information contained in and incorporated by reference into this prospectus supplement and the accompanying prospectus, including our consolidated financial statements and the related notes, before deciding to invest in our securities. The risks and uncertainties described below and in the documents incorporated by reference are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks actually occurs, our business, financial condition, results of operations and prospects could be materially and adversely affected, the trading price of our common stock could decline and you could lose all or part of your investment.

Risks Related to this Offering

Even if this offering is successful, we will need to continue our efforts to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain capital when needed may negatively impact our ability to continue as a going concern.

Developing ddRNAi products is expensive, and we expect our research and development expenses to increase substantially in connection with our ongoing activities, particularly as we advance our product candidates in preclinical studies and in future clinical trials and as we undertake preclinical studies of new product candidates.

As of December 31, 2020, our cash and cash equivalents were approximately $14 million. We estimate that the net proceeds from this offering will be approximately $11.3 million, after deducting the underwriting discount and commission and estimated offering expenses payable by us. We estimate that these net proceeds, together with our existing cash and cash equivalents, will be sufficient to fund our operations until approximately the second quarter of 2022. However, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings, government grants or other third-party funding, strategic alliances and licensing arrangements or a combination of these approaches. In addition, because the length of time and activities associated with successful development of our product candidates is highly uncertain, we are unable to estimate the actual funds we will require for development and any approved marketing and commercialization activities. In any event, we will require additional capital to obtain regulatory approval for our product candidates and to commercialize any product candidates that receive regulatory approval.

Any additional fundraising efforts may divert our management fromtheir day-to-day activities, which may compromise our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. Moreover, the terms of any financing may adversely affect the holdings or the rights of our shareholders, and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our common stock to decline. If we incur indebtedness we may be required to agree to restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could compromise our ability to conduct our business. We could also seek financing through arrangements with collaborative partners at an earlier stage than would otherwise be desirable and we may be required to relinquish rights to some or all of our technologies or product candidates or otherwise agree to terms unfavorable to us.

If we are unable to obtain funding on a timely basis or on acceptable terms, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any approved product candidates.

Future sales of our common stock, or the perception that such sales may occur, could depress the trading price of our common stock.

After the completion of this offering, we expect to have 7,854,416 shares of our common stock outstanding (or 8,309,870 shares if the underwriter exercises in full its option to purchase shares), which may be resold in the public market immediately after this offering, and the market price of our common stock could drop significantly if the holders of these shares of our common stock sell them or are perceived by the market as intending to sell them. These factors could also make it more difficult for us to raise additional funds through future offerings of our common stock or other securities.

We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds we receive in this offering, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether our management is using the net proceeds appropriately. Because of the number and variability of factors that will determine our use of our net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest our net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

You will experience immediate and substantial dilution as a result of this offering.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the sale by us of 3,036,366 shares offered in this offering at the offering price of $4.25 per share, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of $0.82 per share. See "Dilution."

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $11.3 million, or approximately $13.1 million if the underwriter exercises its option in full to purchase 455,454 additional shares of common stock, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this financing for the continued advancement of development activities for our product pipeline, general corporate purposes and strategic growth opportunities.

The amount and timing of these expenditures will depend on a number of factors, including the progress of our research and development efforts, the progress of any partnering efforts, technological advances and the competitive environment for our product candidates. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be used in a way that does not yield a favorable, or any, return for us. Pending application of the net proceeds as described above, we intend to invest the proceeds in investment grade interest bearing instruments, or will hold the proceeds in interest bearing or non-interest bearing bank accounts.

DILUTION

Dilution in net tangible book value per share to new investors is the amount by which the effective public offering price paid by the purchasers of the shares sold in this offering exceeds the as adjusted net tangible book value per share of common stock after giving effect to the offering. Net tangible book value per share is determined by dividing our total tangible assets (total assets less intangible assets), less total liabilities, by the number of shares of our common stock outstanding. Our net tangible book value as of December 31, 2020 was approximately $14.6 million, or approximately $3.22 per share of common stock.

After giving effect to the issuance of 3,036,366 shares of common stock in this offering at an offering price of $4.25 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2020 would have been approximately $26 million, or approximately $3.43 per share of common stock. This represents an immediate increase in our as adjusted net tangible book value of $0.21 per share to our existing stockholders and an immediate dilution of $0.82 per share to investors participating in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share		$4.25
Net tangible book value per share as of December 31, 2020	$3.22	
Increase in net tangible book value per share attributable to this offering	$0.21	
As adjusted net tangible book value per share after giving effect to this offering		$3.43
Dilution per share to new investors		$0.82

If the underwriter exercises in full its option to purchase up to an additional 455,454 shares of our common stock, the pro forma, as adjusted net tangible book value after this offering would be $3.45 per share, representing an increase in net tangible book value of $0.23 per share to our existing stockholders and immediate dilution in net tangible book value of $0.80 per share to new investors purchasing shares in this offering.

The foregoing discussion and table are based on 4,540,469 outstanding shares of common stock outstanding at December 31, 2020 and excludes as of such date the following:

- 587,290 shares of common stock issuable upon exercise of stock options outstanding as of December 31, 2020 at a weighted-average exercise price of $7.64 per share;
- 384,679 shares of common stock issuable upon the exercise of warrants exercisable for shares of common stock outstanding as of December 31, 2020 at a weighted-average exercise price of $5.15 per share; and
- 174,454 shares of common stock reserved for issuance under the Company’s Benitec Biopharma Inc. 2020 Equity and Incentive Compensation Plan.

UNDERWRITING

We have entered into an underwriting agreement with H.C. Wainwright & Co., LLC, as underwriter, with respect to the shares of common stock being offered hereby. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriter and the underwriter has agreed to purchase from us, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, shares of our common stock.

Pursuant to the terms and subject to the conditions contained in the underwriting agreement, we have agreed to sell to the underwriter named below, and the underwriter has agreed to purchase from us, the number of shares of common stock set forth opposite its name below:

Underwriter	Number of Shares of Common Stock
H.C. Wainwright & Co., LLC	3,036,366

An associated person of the underwriter has agreed to participate in this offering, on the same terms and conditions, and purchase an aggregate of 200,000 shares of common stock for a total purchase price of $850,000.

The underwriting agreement provides that the obligation of the underwriter to purchase the shares of common stock offered by this prospectus is subject to certain conditions. The underwriter is obligated to purchase all of the shares of common stock if any of the securities are purchased, other than those shares covered by the option to purchase additional securities described below. Delivery of the shares of common stock and to purchasers is expected on or about April 30, 2021, subject to satisfaction of certain customary closing conditions.

The underwriter may offer the shares of common stock from time to time to purchasers directly or through agents, or through brokers in brokerage transactions on the Nasdaq Capital Market, or to dealers in negotiated transactions or in a combination of such methods of sale, or otherwise, at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part. The difference between the price at which the underwriter purchases shares from us and the price at which the underwriter resells such shares may be deemed underwriting compensation. If the underwriter effects such transactions by selling shares of common stock to or through dealers, such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriter and/or purchasers of shares of common stock or whom they may act as agents or to whom they may sell as principal.

Option to Purchase Additional Securities

We have granted to the underwriter an option, exercisable not later than 30 days after the date of this prospectus, to purchase up to an additional 455,454 shares of common stock at the public offering price, less the underwriting discounts and commissions, set forth on the cover page of this prospectus. The underwriter may exercise its option to acquire additional shares for the sole purpose of covering over-allotments. If any additional shares of common stock are purchased pursuant to such option, the underwriter will offer these securities on the same terms as those on which the securities are being offered hereby.

Discounts, Commissions and Expenses

The underwriter proposes to offer the shares of common stock pursuant to the underwriting agreement to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers at that price

less a concession not in excess of $0.19125 per share. After this offering, the public offering price and concession may be changed by the underwriter. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

In connection with the sale of the common stock to be purchased by the underwriter, the underwriter will be deemed to have received compensation in the form of underwriting commissions and discounts. The underwriter's commissions and discounts will be 8.0% of the gross proceeds of this offering, or $0.34 per share of common stock.

The following table shows underwriting discounts and commissions payable to the underwriter by us in connection with this offering:

	Per Share	Total without Option	Total with Option
Public offering price	$ 4.25	$ 12,904,555.50	$ 14,840,235.00
Underwriting discounts and commissions	$ 0.34	$ 1,032,364.44	$ 1,187,218.80

We have also agreed to pay H.C. Wainwright & Co., LLC an expense allowance consisting of (a) a management fee equal to 1.0% of the gross proceeds raised in the offering, (b) $50,000 for non-accountable expenses, (c) up to $100,000 for fees and expenses of legal counsel and other out-of-pocket expenses and (d) $15,950 clearing fees. We estimate the total expenses payable by us for this offering will be approximately $233,250, which amount excludes underwriting discounts and commissions.

Right of First Refusal

We have also agreed, subject to certain conditions, to give the underwriter a twelve-month right of first refusal from the closing of the offering, to act (i) as our exclusive financial advisor if we decide to dispose of or acquire business units or acquire any of our outstanding securities out of the ordinary course or make any exchange or tender offer or enter into a merger, consolidation or other business combination or any recapitalization, reorganization, restructuring or other similar transaction and we decide to retain a financial advisor for such transaction; (ii) as sole book-runner, sole manager, sole placement agent or sole agent with respect to any financing or refinancing of any indebtedness using a manager or agent; or (iii) as sole book-running manager, sole underwriter or sole placement agent if we to raise funds by means of a public offering (including at-the-market facility) or a private placement or any other capital-raising financing of equity, equity-linked or debt securities using an underwriter or placement agent, in each case during such period.

Indemnification

Pursuant to the underwriting agreement, we have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the underwriter or such other indemnified parties may be required to make in respect of those liabilities.

Determination of Offering Price

The offering price of the securities we are offering was negotiated between us and the underwriter based on the trading of our shares of common stock prior to the offering, among other things.

Lock-Up Agreements

We, and each of our directors and executive officers, have enteredinto lock-up agreements that prevent us or them from selling any shares of common stock or any securities convertible into or exercisable or exchangeable into shares of common stock, subject to certain exceptions, for a period of 90 days after the date of this prospectus supplement. The underwriter, in its sole discretion, may release shares of common stock and

other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release the shares of common stock and other securities from lock-up agreements, the underwriter will consider, among other factors, the holder's reasons for requesting the release and the number of shares of common stock or other securities for which the release is being requested.

We have also agreed, in the underwriting agreement, to a restriction on the issuance of any variable priced securities for 12 months following the closing of this offering, except that, after the 90th day following the date of the underwriting agreement we may enter into an at-the-market offering with the underwriter.

Price Stabilization, Short Positions and Penalty Bids

The underwriter may engage in syndicate covering transactions, stabilizing transactions and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of our shares of common stock:

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. Such a naked short position would be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.
- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions, stabilizing transactions and penalty bids may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result, the price of our shares of common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that the transactions described above may have on the price of our shares of common stock. These transactions may be effected on the Nasdaq Global Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriter also may engage in passive market making transactions in our shares of common stock in accordance with Regulation M during a period before the commencement of offers or sales of our shares of common stock in this offering and extending through the completion of the distribution. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that any transactions, once commenced, will not be discontinued without notice.

Electronic Offer, Sale and Distribution of Securities

A prospectus in electronic format may be made available on the websites maintained by the underwriter, if any, participating in this offering and the underwriter may distribute prospectuses electronically. Other than the

prospectus in electronic format, the information on these websites is not part of this prospectus supplement or the registration statement of which this prospectus supplement forms a part, has not been approved or endorsed by us or the underwriter, and should not be relied upon by investors.

Other Relationships

From time to time, the underwriter and its affiliates have provided, and may provide in the future, various advisory, investment and commercial banking and other services to us in the ordinary course of business, for which they have received and may continue to receive customary fees and commissions. In addition, H.C. Wainwright & Co., LLC acted as our sole book-running manager for our public offering we consummated in October, 2020, for which it received compensation.

Selling Restrictions

European Economic Area

In relation to each member state of the European Economic Area (the "EEA") that has implemented the Prospectus Regulation (as defined below) (each, a "Relevant Member State"), with effect from and including the date on which the Prospectus Regulation is implemented in that Relevant Member State, an offer of securities described in this prospectus may not be made to the public in that Relevant Member State other than:

- to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- by the placement agents to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), as permitted under the Prospectus Regulation, subject to obtaining the prior consent of H.C. Wainwright & Co., LLC for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation;
- provided that no such offer of securities shall require us or any placement agent 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 purposes of this provision, the expression an "offer of securities to the public" in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on its behalf, other than offers made by the placement agents with a view to the final placement of the securities as contemplated in this prospectus. Accordingly, no purchaser of the securities is authorized to make any further offer of the securities on behalf of us or the placement agents.

The EEA selling restriction is in addition to any other selling restrictions set out in this prospectus.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Canada

Our securities may be sold 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 our 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 the prospectus (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 for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriter is not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Israel

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

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by our counsel, Proskauer Rose LLP, Los Angeles, California. Lowenstein Sandler LLP, New York, New York, is acting as counsel for the underwriter in connection with this offering.

EXPERTS

The consolidated financial statements of Benitec Biopharma Limited as of June 30, 2019 and for the year then ended incorporated by reference in this registration statement, have been audited by Grant Thornton Audit Pty Ltd, an independent registered public accounting firm, in reliance on such report given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Benitec Biopharma Inc. as of June 30, 2020 and for the year then ended incorporated by reference in this registration statement, have been audited by Squar Milner LLP, (which effective as of November 1, 2020, merged with Baker Tilly US, LLP) an independent registered public accounting firm, as stated in their report thereon which report expresses an unqualified opinion, and incorporated by reference herein in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus supplement and the accompanying prospectus forms a part. For further information with respect to us and the securities offered hereby, reference is made to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus supplement regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and as such we refer you to the full text of such contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules filed therewith may be inspected without charge at the public reference room maintained by the SEC, located at 100 F Street N.E., Washington, D.C. 20549, and copies of all or any part of the registration statement may be obtained from such offices upon the payment of the fees prescribed by the SEC. Please call the SEC at 1-800-SEC-0330 for further information about the public reference room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The Internet address is www.sec.gov.

We are subject to the information and periodic reporting requirements of the Exchange Act, and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at www.benitec.com. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, 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 with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Prior to the Re-domiciliation, Benitec Limited was a “foreign private issuer.” Information concerning Benitec Limited, including its annual reports on Form 20-F and current reports on Form 6-K, is also available free of charge on our website. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus, and any references to such website or any other website are inactive textual references only. You may also request a copy of these filings, at no cost, by writing us at 3940 Trust Way, Hayward, California 94545 or info@benitec.com or telephoning us at (510) 780-0819.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement, and the information that we file later with the SEC will automatically update and supersede this information. The following documents have been previously filed by us with the SEC pursuant to the Exchange Act and are hereby incorporated by reference in this prospectus supplement and the registration statement of which this prospectus supplement and the accompanying prospectus form a part (excluding any document or portion thereof to the extent such disclosure is furnished and not filed):

- our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, filed with the SEC on September 23, 2020;
- the information specifically incorporated by reference into our Annual Report on Form 10-K from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on October 22, 2020;
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended September 30, 2020, filed with the SEC on November 13, 2020, and for the fiscal quarter ended December 31, 2020, filed with the SEC on February 9, 2021;
- our Current Reports on Form 8-K filed with the SEC on August 18, 2020, October 6, 2020, October 27, 2020, November 3, 2020, December 14, 2020 December 15, 2020, and February 24, 2021, and our amended Current Report on Form 8-K/A filed with the SEC on August 19, 2020; and
- the description of our common stock contained in our Form 8-K 12B, filed with the SEC on April 15, 2020, as updated by the description of the Company's common stock contained in Exhibit 4.3 to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2020, filed with the SEC on September 23, 2020, together with any amendment or report filed for the purpose of updating such description.

Certain Current Reports on Form 8-K dated both prior to and after the date of this prospectus supplement are or will be furnished to the SEC and shall not be deemed "filed" with the SEC and will not be incorporated by reference into this prospectus supplement. However, all other reports and documents filed by us after the date of this prospectus supplement under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the termination of the offering of the securities covered by this prospectus supplement will also be deemed incorporated by reference in this prospectus supplement and considered to be part of this prospectus supplement from the date those documents are filed. If you make a request, orally or in writing, for any information that has been incorporated by reference into this prospectus supplement but not delivered with this prospectus supplement, we will provide you, without charge, a copy of any or all of that information. Requests for this information should be submitted in writing or by telephone at the following address or phone number:

Benitec Biopharma Inc.
3940 Trust Way
Hayward, CA 94545
(510) 780-0819
info@benitec.com

This prospectus supplement and the accompanying prospectus is part of a registration statement we have filed with the SEC. You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. No one else is authorized to provide you with different information. You should not rely on any other representations. We are not making an offer of these securities in any state where the offer is not permitted. Our affairs may change after this prospectus supplement is distributed. You should not assume that the information in or incorporated by reference into this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front of those documents. You should read all information supplementing or incorporated by reference into this prospectus supplemented and the accompanying prospectus.

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PROSPECTUS

$75,000,000

Common Stock
Debt Securities
Warrants
Units

We may offer, from time to time, separately or together in any combination, common stock, debt securities, warrants or units consisting of all or some of such securities having an aggregate offering price of up to $75,000,000.

We may offer the securities in one or more series, in amounts, at prices and on terms determined at the time of offering. We will provide the specific terms of any securities we actually offer for sale in supplements to this prospectus.

We may sell these securities directly, through agents, dealers or underwriters as designated from time to time, or through a combination of these methods. We reserve the sole right to accept, and together with our agents, from time to time, to reject in whole or in part any proposed purchase of securities to be made directly or through agents. If our agents or any dealers or underwriters are involved in the sale of securities, the applicable prospectus supplement will set forth the names of the agents, dealers or underwriters and any applicable commissions or discounts.

You should read carefully this prospectus, each prospectus supplement and the documents incorporated by reference into this prospectus and any prospectus supplement before you invest in any of our securities. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

Our common stock is listed on The Nasdaq Capital Market under the symbol "BNTC." On February 17, 2021, the last reported sale price of our common stock on The Nasdaq Capital Market was $5.17 per share, and the aggregate market value of the common stock held by non-affiliates as of such date was $23,341,484, based on 4,818,050 shares of outstanding common stock, of which 4,514,794 shares are held by non-affiliates. In no event will we sell securities in a primary offering in reliance on General Instruction I.B.6 of Form S-3 with a value exceeding more than one-third of our public float in any 12-month calendar period so long as our public float remains below $75.0 million. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement.

Investing in our securities involves risks. You should carefully consider the risk factors included under the heading "Risk Factors" in the applicable prospectus supplement and under that heading or similar headings in the other documents incorporated by reference in this prospectus or any prospectus supplement before making a decision to purchase our securities.

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

The date of this prospectus is February 26, 2021.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under the shelf registration process, using this prospectus, together with a prospectus supplement, we may sell, from time to time, in one or more offerings, any combination of the securities described in this prospectus in a dollar amount that does not exceed $75,000,000 in the aggregate. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, a prospectus supplement will be provided that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any statement we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement.

You should read this prospectus, the applicable prospectus supplement and the information incorporated by reference in this prospectus or any prospectus supplement before making an investment in our securities. See "Documents Incorporated by Reference" and "Where You Can Find More Information" for more information. You should rely only on the information contained in or incorporated by reference in this prospectus or a prospectus supplement. We have not authorized anyone to provide you with different information. This prospectus and the information incorporated herein by reference contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. This document may be used only in jurisdictions where offers and sales of these securities are permitted. You should not assume that information contained in this prospectus, in any supplement to this prospectus, or in any document incorporated by reference is accurate as of any date other than the date on the front page of the document that contains the information, regardless of when this prospectus or a prospectus supplement is delivered or when any sale of our securities occurs.

We further note that the representations, warranties and covenants made by us in any document that is filed as an exhibit to the registration statement of which this prospectus is a part and in 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.

TRADEMARKS AND TRADENAMES

We have proprietary and licensed rights to trademarks used in this prospectus which are important to our business, many of which are registered under applicable intellectual property laws. These trademarks include:

- BENITEC BIOPHARMA®
- BENITEC®
- GIVING DISEASE THE SILENT TREATMENT®
- SILENCING GENES FOR LIFE®

Solely for convenience, trademarks and trade names referred to in this prospectus appear without the "®" or "™" symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Each trademark, trade name or service mark of any other company appearing in this prospectus is the property of its respective holder.

SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus and each applicable prospectus supplement carefully, including the "Risk Factors" section contained in this prospectus and in each applicable prospectus supplement, and our consolidated financial statements and the related notes and the other documents incorporated by reference into this prospectus and into each applicable prospectus supplement.

Company Overview

We endeavor to become the leader in discovery, development, and commercialization of therapeutic agents capable of addressing significant unmet medical need via the application of the silence and replace approach to the treatment of genetic disorders.

Benitec Biopharma Inc. ("Benitec" or the "Company" or in the third person, "we" or "our") is a development-stage biotechnology company focused on the advancement of novel genetic medicines with headquarters in Hayward, California. The proprietary platform, called DNA-directed RNA interference, or ddRNAi, combines RNA interference, or RNAi, with gene therapy to create medicines that facilitate sustained silencing of disease-causing genes following a single administration. The Company is developing ddRNAi-based therapeutics for chronic and life-threatening human conditions including Oculopharyngeal Muscular Dystrophy (OPMD), and Chronic Hepatitis B.

BB-301 is the most advanced ddRNAi-based genetic medicine currently under development by Benitec. BB-301 is an internally optimized, AAV-based gene therapy agent that is designed to both silence the expression of mutated, disease-causing genes (to slow, or halt, the underlying mechanism of disease progression) and replace the mutant genes with normal, "wild type" genes (to drive restoration of function in diseased cells). This fundamental approach to disease management is called "silence and replace" and this biological mechanism offers the potential to restore the underlying physiology of the treated tissues and, in the process, improve treatment outcomes for patients suffering from the chronic and, potentially, fatal effects of Oculopharyngeal Muscular Dystrophy (OPMD). BB-301 has been granted Orphan Drug Designation in the United States and the European Union.

Through the combination of the targeted gene silencing effects of RNAi and the durable transgene expression achievable via the use of modified viral vectors, the silence and replace approach has the potential to produce long-term silencing of disease-causing genes along with simultaneous replacement of wild type gene function following a single administration of the proprietary genetic medicine. We believe this novel attribute of the investigational agents under development by Benitec may facilitate the achievement of robust clinical activity while greatly reducing the dosing frequencies traditionally expected for medicines employed for the management of chronic diseases. Additionally, the establishment of chronic gene silencing and gene replacement may significantly reduce the risk of patient non-compliance during the course of medical management of potentially fatal clinical disorders.

Re-domiciliation

On April 15, 2020, or the Implementation Date, the re-domiciliation, or the Re-domiciliation, of Benitec Biopharma Limited, a public company incorporated under the laws of the State of Western Australia, or Benitec Limited, was completed in accordance with the Scheme Implementation Agreement, as amended and restated as of January 30, 2020, between Benitec Limited and us. As a result of the Re-domiciliation, our jurisdiction of incorporation was changed from Australia to Delaware, and Benitec Limited became our wholly owned subsidiary.

The Re-domiciliation was effected pursuant to a statutory scheme of arrangement under Australian law, or the Scheme, whereby on the Implementation Date, all of the issued and outstanding ordinary shares of Benitec Limited were exchanged for newly issued shares of our common stock, on the basis of one share of our common stock, par value $0.0001 per share, for every 300 ordinary shares of Benitec Limited issued and outstanding. Holders of Benitec Limited's American Depository Shares, or ADSs (each of which represented 200 ordinary shares), received two shares of our common stock for every three ADSs held.

Corporate Information

We were incorporated as a Delaware corporation on November 22, 2019 and completedthe Re-domiciliation on April 15, 2020. Our predecessor, Benitec Limited, was incorporated under the laws of Australia in 1995. Our stock is traded on The Nasdaq Capital Market, or Nasdaq, under the symbol "BNTC." Our principal executive offices are located at 3940 Trust Way, Hayward, California 94545. Our telephone number is (510) 780-0819, and our Internet website is www.benitec.com. The information on, or that can be accessed through, our website is not part of this prospectus and is not incorporated by reference herein.

The Securities We May Offer

With this prospectus, we may offer common stock, debt securities, warrants and units consisting of some or all of such securities, separately or together in any combination of the foregoing. The aggregate initial offering price of all securities we sell in the primary offerings under this prospectus will not exceed $75,000,000. Each time we offer securities with this prospectus, we will provide offerees with a prospectus supplement that will contain the specific terms of the securities being offered. The following is a summary of the securities we may offer with this prospectus.

We may sell the securities to or through underwriters, dealers or agents or directly to purchasers. We, as well as any agents acting on our behalf, reserve the sole right to accept and to reject in whole or in part any proposed purchase of securities. Each prospectus supplement will set forth the names of any underwriters, dealers or agents involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

Common Stock

We may offer shares of our common stock, par value $0.0001 per share, either alone or underlying other registered securities convertible into or exchangeable for our common stock. Holders of our common stock are entitled to such dividends as our board of directors, or Board, may declare from time to time out of legally available funds, subject to the preferential rights of the holders of any shares of our preferred stock that we may issue in the future. We have never declared or paid dividends on our common stock and we do not anticipate paying dividends in the foreseeable future. Each holder of our common stock is entitled to one vote per share. Holders of our common stock have no preemptive rights. In this prospectus, we provide a general description of, among other things, the dividend, voting and liquidation rights that apply to holders of our common stock.

Debt Securities

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized herein will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement and in any related free writing prospectus that we may authorize to be distributed to you. The terms of any debt securities offered under a prospectus supplement may differ from the terms described herein.

Warrants

We may offer warrants for the purchase of shares of common stock or debt securities. We may issue the warrants by themselves or together with common stock or debt securities, and the warrants may be attached to or separate from any offered securities. Each series of warrants may be issued under a separate warrant agreement to be entered into between us and a warrant agent. Our Board or a committee designated by our Board will determine the terms of the warrants at the time of sale. This prospectus contains only general terms and provisions of the warrants. The applicable prospectus supplement will describe the particular terms of the warrants being offered thereby.

Units

We may offer units consisting of some or all of our common stock, debt securities and warrants. The units may be issued in the form of a unit agreement and/or unit certificate. This prospectus contains only general terms and provisions of the units. The applicable prospectus supplement will describe the particular terms of the warrants being offered thereby.

RISK FACTORS SUMMARY

An investment in our securities involves a high degree of risk. Any of the risk factors included in our Annual Report on Form10-K for the fiscal year ended June 30, 2020 and any subsequent Quarterly Report on Form 10-Q, which are incorporated by reference into this prospectus, may limit our ability to successfully execute our business strategy. You should carefully consider all of the information set forth in this prospectus, any prospectus supplement and in the documents incorporated by reference herein and, in particular, should evaluate the risk factors included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2020 and any subsequent Quarterly Report on Form 10-Q in deciding whether to invest in our securities. These risk factors include, among others:

- We have incurred significant losses since inception and anticipate that we will continue to incur losses for the foreseeable future. If we are unable to achieve or sustain profitability, the market value of our common stock will likely decline;
- We have never generated any revenue from product sales and may never be profitable;
- We will need to continue our efforts to raise additional funding, which may not be available on acceptable terms, or at all. Failure to obtain capital when needed may negatively impact our ability to continue as a going concern;
- Our product candidates are based on ddRNAi and silence and replace technology. Currently, no product candidates utilizing ddRNAi technology or silence and replace technology have been approved for commercial sale and our approach to the development of ddRNAi technology and silence and replace technology may not result in safe, effective or marketable products;
- We are early in our product development efforts and our current product candidates are still in preclinical development. We may not be able to obtain regulatory approvals for the commercialization of our product candidates;
- Issues that may impact delivery of our therapeutics to the cell could adversely affect or limit our ability to develop and commercialize product candidates;
- We face competition from entities that have developed or may develop product candidates for our target disease indications, including companies developing novel treatments and technology platforms based on modalities and technology similar to ours; and
- If we are unable to obtain or protect sufficient intellectual property rights related to our product candidates, we may not be able to obtain exclusivity for our product candidates or prevent others from developing similar competitive products.

RISK FACTORS

We have included discussions of cautionary factors describing risks relating to our business and an investment in our securities in our Annual Report on Form 10-K for the year ended June 30, 2020, which is incorporated by reference into this prospectus. See "Where You Can Find More Information" for an explanation of how to get a copy of this report. Additional risks related to our securities may also be described in a prospectus supplement or our other filings with the SEC. Before purchasing our securities, you should carefully consider the risk factors we describe in any prospectus supplement or in any report incorporated by reference into this prospectus or such prospectus supplement, including our Annual Report on Form 10-K for the year ended June 30, 2020, or any Annual Report on Form 10-K or Quarterly Report on Form 10-Q that is incorporated by reference into this prospectus or such prospectus supplement after the date of this prospectus. Although we discuss key risks in those risk factor descriptions, additional risks not currently known to us or that we currently deem immaterial also may impair our business. Our subsequent filings with the SEC may contain amended and updated discussions of significant risks. We cannot predict future risks or estimate the extent to which they may affect our financial performance.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains, and may incorporate by reference, forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We claim the protection of the safe harbor contained in the Private Securities Litigation Reform Act of 1995 for these forward looking statements. Our forward-looking statements relate to future events or our future performance and include, but are not limited to, statements concerning our business strategy, future commercial revenues, market growth, capital requirements, new product introductions, expansion plans and the adequacy of our funding. Other statements contained in this prospectus and in any applicable prospectus supplement that are not historical facts are also forward-looking statements. We have tried, wherever possible, to identify forward-looking statements by terminology such as "may," "will," "could," "should," "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and other comparable terminology.

Some of the risks and uncertainties that may cause our actual results, performance or achievements to differ materially from those expressed or implied by forward-looking statements include the following:

- the success of our plans to develop and potentially commercialize our product candidates;
- the timing of the initiation and completion of preclinical studies and clinical trials;
- the timing and sufficiency of patient enrollment and dosing in any future clinical trials;
- the timing of the availability of data from clinical trials;
- the timing and outcome of regulatory filings and approvals;
- unanticipated delays;
- sales, marketing, manufacturing and distribution requirements;
- market competition and the acceptance of our products in the marketplace;
- regulatory developments in the United States;
- the development of novel AAV vectors;
- the plans of licensees of our technology;
- the clinical utility and potential attributes and benefits of ddRNAi and our product candidates;
- including the potential duration of treatment effects and the potential for a "one shot" cure;
- our dependence on our relationships with collaborators and other third parties;

- expenses, ongoing losses, future revenue, capital needs and needs for additional financing;
- the length of time over which we expect our cash and cash equivalents to be sufficient to execute on our business plan;
- our intellectual property position and the duration of our patent portfolio;
- the impact of local, regional, and national and international economic conditions and events; and
- the impact of the current COVID-19 pandemic, the disease caused by the SARS-CoV-2 virus, which may adversely impact our business and preclinical and future clinical trials;

as well as other risks detailed under the caption "Risk Factors" in this prospectus and in each applicable prospectus supplement and our reports filed with the SEC.

We caution investors that any forward-looking statements presented in this prospectus or any prospectus supplement or the documents incorporated by reference herein or therein, or those that we may make orally or in writing from time to time, are based upon management's beliefs and assumptions and are made based on information available to us as of the time made. Such statements are based on assumptions and the actual outcome will be affected by known and unknown risks, trends, uncertainties and factors that are beyond our control or ability to predict. Although we believe that our assumptions are reasonable, they are not guarantees of future performance and some will inevitably prove to be incorrect. As a result, our actual future results can be expected to differ from our expectations, and those differences may be material. Accordingly, investors should use caution in relying on past forward-looking statements, which are based on known results and trends at the time they are made, to anticipate future results or trends. Except as required by law, we undertake no obligation to publicly update or revise any forward-looking statements included or incorporated by reference in this prospectus or any prospectus supplement or to update the reasons why actual results could differ from those contained in such statements, whether as a result of new information, future events or otherwise, except to the extent required by federal securities laws. Any investor in us should consider all risks and uncertainties disclosed in our filings with the SEC described below under the heading "Where You Can Find More Information," all of which are accessible on the SEC's website at www.sec.gov.

All forward-looking statements included herein or in documents incorporated herein by reference are expressly qualified in their entirety by the cautionary statements contained or referred to elsewhere in this prospectus.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we anticipate that the net proceeds from the sale of the securities under this prospectus will be used for general corporate purposes. General corporate purposes may include repayment of debt, capital expenditures, and any other purposes that we may specify in any prospectus supplement. In addition, we may use a portion of any net proceeds for the continued advancement of development activities for our product pipeline and strategic growth opportunities. We will have significant discretion in the use of any net proceeds. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of the securities. We may invest the net proceeds temporarily until we use them for their stated purpose.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the common stock that we may offer pursuant to this prospectus. While the terms we have summarized below will apply generally to any future common stock that we may offer, we will describe the particular terms of any class of common stock in more detail in the applicable prospectus supplement. For the complete terms of our common stock, please refer to our amended and restated certificate of incorporation, or our Certificate, and our amended and restated bylaws, or our Bylaws, which are exhibits to the registration statement of which this prospectus is a part. The terms of these securities may also be affected by the General Corporation Law of the State of Delaware, or the DGCL. The summary below and that contained in any prospectus supplement is qualified in its entirety by reference to our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, our Certificate and our Bylaws, as either may be amended from time to time after the date of this prospectus, but before the date of any such prospectus supplement, and the applicable provisions of the DGCL.

General

Our authorized capital stock consists of 10,000,000 shares of our common stock, par value $0.0001 per share. Duringthe Re-domiciliation, all of the issued and outstanding ordinary shares of Benitec Limited were exchanged for newly issued shares of common stock of the Company, on the basis of one share of the Company's common stock for every 300 ordinary shares issued and outstanding. Holders of Benitec Limited's American Depository Shares, or ADSs (each of which represented 200 ordinary shares), received two shares of our common stock for every three ADSs held. As a result of the Re-domiciliation, Benitec Limited is a wholly-owned subsidiary of the Company.

Common Stock

Dividend Rights. Subject to preferences that may be applicable to any then outstanding preferred stock, holders of the Company's common stock are entitled to receive dividends, if any, as may be declared from time to time by the Company's Board out of legally available funds. Dividends may be paid in cash, in property or in shares of common stock, subject to the provisions of the Certificate and applicable law. Declaration and payment of any dividend will be subject to the discretion of the Board. The time and amount of dividends will be dependent upon the Company's financial condition, operations, cash requirements and availability, debt repayment obligations, capital expenditure needs, restrictions in the Company's debt instruments, industry trends, the provisions of Delaware law affecting the payment of distributions to stockholders and any other factors the Board may consider relevant.

Voting Rights. Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. The Company's stockholders do not have cumulative voting rights in the election of directors.

Liquidation Rights. In the event of the Company's liquidation, dissolution or winding up, holders of the Company's common stock are entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of the Company's debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences. Holders of the Company's common stock haveno pre-emptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to the Company's common stock. The rights, preferences and privileges of the holders of the Company's common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that the Company may designate in the future.

Fully Paid and Nonassessable. All outstanding shares of the Company's common stock are fully paidand non-assessable.

Annual Stockholder Meetings. The Certificate and Bylaws provide that annual stockholder meetings will be held at a date, place (if any) and time, as exclusively selected by the Board. To the extent permitted under applicable law, the Company may but is not obligated to conduct meetings by remote communications, including by webcast.

Anti-Takeover Effects of Provisions of the Certificate and Bylaws and DGCL

Some provisions of the DGCL, the Certificate and Bylaws could make the following transactions difficult: (i) acquisition of the Company by means of a tender offer; (ii) acquisition of the Company by means of a proxy contest or otherwise; or (iii) removal of incumbent officers and directors of the Company. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in the best interests of the Company, including transactions that might result in a premium over the market price for the Company's common stock.

These provisions, summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of the Company to first negotiate with the Board.

Delaware Anti-Takeover Statute. The Company is subject to Section 203 of the DGCL, which prohibits persons deemed "interested stockholders" from engaging in a "business combination" with a publicly-held Delaware corporation for three years following the date these persons become interested stockholders unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. Generally, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years prior to the determination of interested stockholder status did own, 15% or more of a corporation's voting stock, and a "business combination" includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. The existence of this provision may have an anti-takeover effect with respect to transactions not approved in advance by the Board, such as discouraging takeover attempts that might result in a premium over the market price of the Company's common stock.

Special Stockholder Meetings. The Bylaws provide that a special meeting of stockholders may be called by (i) the Chairman of the Board, if any, (ii) the President or Chief Executive Officer, or (iii) the Board pursuant to a resolution adopted by a majority of the total number of directors then in office.

Requirements for Advance Notification of Stockholder Nominations and Proposals. The Bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors.

Composition of the Board of Directors; Election and Removal of Directors; Filling Vacancies

The Company's Board consists of five directors and the Board may, from time to time, fix the authorized number of directors by resolution of the Board. The Board is divided into three classes, designated Class I, Class II and Class III. Directors need not be stockholders of the Company.

Directors shall serve for a term ending on the date of the third annual meeting of stockholders following the annual meeting of stockholders at which such director was elected. The term of each director shall continue until the election and qualification of his or her successor and be subject to his or her earlier death, disqualification, resignation or removal. Except as otherwise provided by the DGCL, the Certificate or the Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by a duly authorized and executed proxy at the meeting and entitled to vote on the election of directors.

Subject to applicable law or by the Certificate, any director of the entire Board of the Company may be removed without cause by the affirmative vote of a majority of the holders of the Company's then-outstanding common stock entitled to vote generally at an election of directors. Furthermore, any vacancy on the Company's Board, however occurring, including a vacancy resulting from an increase in the size of the board, may be filled only by a majority vote of the Board then in office, even if less than a quorum, or by the sole remaining director.

Amendment of the Certificate and Bylaws. The Certificate may be amended in any manner permitted under the DGCL and the Bylaws may be amended by the vote or written consent of holders of a majority of the outstanding shares entitled to vote. The Board may also amend the Bylaws, other than a bylaw or amendment thereof specifying or changing a fixed number of directors or the maximum or minimum number or changing from a fixed to a variable board or vice versa.

Limitations of Liability and Indemnification Matters

Each of the Certificate and Bylaws provide that the Company is required to indemnify its directors and officers to the fullest extent not prohibited by Delaware law. The Bylaws also obligates the Company to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding upon delivery to the Company of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision, from which there is no further right to appeal, that such indemnitee is not entitled to be indemnified for such expenses.

To the fullest extent permitted by the DGCL, or any other applicable law, the Company, upon approval by the Board, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to the Bylaws.

Forum for Adjudication of Disputes

The Certificate provides that, unless the Company consents in writing to the selection of an alternative forum, the sole and exclusive forum for (i) derivative actions or proceedings brought on behalf of the Company, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or employee of the Company to the Company or the Company's stockholders, (iii) an action asserting a claim arising pursuant to any provision of the DGCL, or (iv) any action asserting a claim governed by the internal affairs doctrine shall be a state or federal court located within the state of Delaware. The Certificate further provides that the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the exclusive forum for any complaint asserting a cause of action arising under the Securities Act.

Transfer Agent and Registrar

The transfer agent and registrar for the Company's common stock is Computershare Trust Company, N.A. The transfer agent and registrar's address is 250 Royall St., Canton, Massachusetts 02021.

Listing

Our common stock is listed on Nasdaq under the symbol "BNTC."

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, 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 debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement and in any related free writing prospectus that we may authorize to be distributed to you. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below.

We refer to the indenture we would enter if we issued new debt securities as the indenture. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms (which terms have not currently been determined and are not currently known) 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 summary below and that contained in any prospectus supplement is qualified in its 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 supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture will not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

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

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the form of the debt securities of the series;
- the applicability of any guarantees;

- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;
- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;
- the interest rate or rates, 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;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices 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 or dates, if any, on which, and the price or prices 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;
- the denominations in which we will issue the series of debt securities, if other than denominations of $1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;

- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- 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;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities or other property or assets. We will include provisions as to settlement upon conversion or exchange and 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 or our other securities or units of other property or assets 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 applicable to a particular series of debt securities, the indenture 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 indenture or the debt securities, as appropriate.

Events of Default under the Indenture

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

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied

and stating that such is a notice of default thereunder, 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.

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 of, 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 principal amount of 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.

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 indenture, 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. 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.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only 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 to institute 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.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;

- to comply with the provisions described above under "Description of Debt Securities—Consolidation, Merger or Sale;"
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, 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 upon us in the indenture;
- 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;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above 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 under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

In addition, under the indenture, 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 a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement 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 fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series 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 will provide that 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:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any 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, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of $1,000 and any integral multiple thereof. The indenture will provide that 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 depositary named by us and identified in a prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating thereto will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, 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 indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, 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 impose 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 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 will undertake 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 indenture 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, 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 prospectus supplement, 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, 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 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

The indenture and the debt securities will 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.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock or debt securities. Warrants may be issued independently or together with common stock, debt securities or as a component of a unit and may be attached to or separate from any offered securities. Each series of warrants may be issued under a separate warrant agreement to be entered into between us and a warrant agent. The warrant agreement may provide that, in certain circumstances, we and the warrant agent will be permitted to amend the warrant agreement without the consent of the holders of warrants. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any registered holders of warrants or beneficial owners of warrants. This summary of certain provisions of the warrants is not complete. You should refer to the warrant agreement, including the forms of warrant certificate representing the warrants, relating to the specific warrants being offered for the complete terms of the warrant agreement and the warrants. The warrant agreement, together with the terms of warrant certificate and warrants, will be filed with the SEC in connection with the offering of the specific warrants.

The particular terms of any issue of warrants will be described in the prospectus supplement relating to the issue. Those terms may include:

- the title of such warrants;
- the aggregate number of such warrants;
- the price or prices at which such warrants will be issued;
- the currency or currencies (including composite currencies) in which the price of such warrants may be payable;
- the amount and terms of the securities purchasable upon exercise of such warrants and the procedures and conditions relating to the exercise of such warrants;
- the purchase price of each of the securities purchasable upon exercise of such warrants;
- the date on which the right to exercise such warrants will commence and the date on which such right shall expire;
- any provisions for adjustment of the number or amount of securities to be received upon exercise of the warrants or of the exercise price of the warrants;
- if applicable, the minimum or maximum amount of such warrants that may be exercised at any one time;
- if applicable, the designation and terms of the securities with which such warrants are issued and the number of such warrants issued with each such security;
- if applicable, the date on and after which such warrants and the related securities will be separately transferable;
- information with respect to book-entry procedures, if any; and
- any other terms of such warrants, including terms, procedures, conditions and limitations relating to the exercise of such warrants.

The prospectus supplement relating to any warrants to purchase equity securities may also include, if applicable, a discussion of certain U.S. federal income tax and ERISA considerations.

Warrants for the purchase of or common stock will be offered and exercisable for U.S. dollars only. Warrants will be issued in registered form only.

Each warrant will entitle its holder to purchase the number of shares of common stock or debt securities at the exercise price set forth in, or calculable as set forth in, the applicable prospectus supplement. The applicable prospectus supplement will also describe the circumstances pursuant to which the exercise price and/or the number or amount of the securities to be issued upon exercise of the warrants would be adjusted and the method of making and notifying the holder of any such adjustment.

After the close of business on the applicable expiration date, unexercised warrants will become void. We will specify the place or places where, and the manner in which, warrants may be exercised in the applicable prospectus supplement.

Upon receipt of payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will, as soon as practicable, issue and deliver the purchased securities in the manner described in the applicable prospectus supplement. If less than all of the warrants represented by the warrant certificate are exercised, a new warrant certificate will be issued for the remaining unexpired warrants.

Prior to the exercise of any warrants to purchase common stock or debt securities, holders of the warrants will not have any of the rights of holders of the common stock or debt securities purchasable upon exercise, including the right to vote or to receive any payments of dividends or interest on the common stock or debt securities purchasable upon exercise.

DESCRIPTION OF UNITS

We may issue units consisting of any combination of our common stock, debt securities and warrants. We will issue each unit so that the holder of the unit is also the holder of each security included in the unit. As a result, 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. This summary of certain provisions of the units is not complete. You should refer to the unit agreement and/or unit certificate, and depositary arrangements, relating to the specific units being offered for the complete terms of the units. The unit agreement and/or unit certificate, and depositary arrangements, as applicable, will be filed with the SEC in connection with the offering of the specific units.

The particular terms of any issue of units will be described in the prospectus supplement relating to the issue. Those terms may include:

- 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 for the issuance, payment, settlement, transfer, or exchange of the units or of the securities composing the units;
- whether the units will be issued in fully registered or global form; and
- any other terms of the units.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

- through agents to the public or to investors;
- to underwriters for resale to the public or to investors;
- in "at the market offerings," within the meaning of Rule 415(a)(4) of the Securities Act, into an existing trading market, at prevailing market price;
- directly to investors; or
- through a combination of any of these methods of sale.

We will set forth in a prospectus supplement the terms of that particular offering of securities, including:

- the name or names of any agents or underwriters;
- the purchase price of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any initial public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchanges or markets on which such securities may be listed.

Agents

We may designate agents who agree to use their reasonable efforts to solicit purchases of our securities for the period of their appointment or to sell our securities on a continuing basis.

Underwriters

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. The underwriters will be obligated to purchase all the securities of the series offered if they purchase any of the securities of that series. We may change from time to time any initial public offering price and any discounts or concessions the underwriters allow or reallow or pay to dealers.

Direct Sales

We may also sell securities directly to one or more purchasers without using underwriters or agents. Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. To the extent known to us, we will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation.

Derivative Securities

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection

with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, 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 and will be identified in the applicable prospectus supplement (or a post-effective amendment).

Trading Markets and Listing of Securities

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is listed on Nasdaq. We may elect to list any other class or series of securities on any exchange or market, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

Stabilization Activities

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of these activities at any time.

Passive Market Making

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security. If all independent bids are lowered below the passive market maker’s bid, however, the passive market maker’s bid must then be lowered when certain purchase limits are exceeded.

Material Relationships

We may use underwriters, dealers and agents with whom we have a material relationship. To the extent required, we will describe the nature of any such relationship in any prospectus supplement naming any such underwriter, dealer or agent. Underwriters, dealers and agents may engage in transactions with or perform services for us in the ordinary course of their businesses, and we will include in any prospectus supplement any required disclosure related to such transactions or services. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act.

LEGAL MATTERS

Certain legal matters relating to the validity of the securities offered by this prospectus will be passed upon for us by Proskauer Rose LLP, Los Angeles, California.

EXPERTS

The consolidated financial statements of Benitec Biopharma Limited as of June 30, 2019 and for the year then ended incorporated by reference in this registration statement, have been audited by Grant Thornton Audit Pty Ltd, an independent registered public accounting firm, in reliance on such report given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Benitec Biopharma Inc. as of June 30, 2020 and for the year then ended incorporated by reference in this registration statement, have been audited by Squar Milner LLP, (which effective as of November 1, 2020, merged with Baker Tilly US, LLP) an independent registered public accounting firm, as stated in their report thereon which report expresses an unqualified opinion, and incorporated by reference herein in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and the information that we file later with the SEC will automatically update and supersede this information. The following documents have been previously filed by us with the SEC pursuant to the Exchange Act and are hereby incorporated by reference in this prospectus and the registration statement of which this prospectus forms a part (excluding any document or portion thereof to the extent such disclosure is furnished and not filed):

- our Annual Report on Form 10-K for the fiscal year ended June 30, 2020, filed with the SEC on September 23, 2020;
- our Quarterly Reports on Form 10-Q for the fiscal quarter ended September 30, 2020, filed with the SEC on November 13, 2020, and for the fiscal quarter ended December 31, 2020, filed with the SEC on February 9, 2021;
- our Current Reports on Form 8-K filed with the SEC on August 18, 2020, October 6, 2020, October 27, 2020, November 3, 2020, December 14, 2020 and December 15, 2020, and our amended Current Report on Form 8-K/A filed with the SEC on August 19, 2020; and
- the description of our common stock contained in our Form 8-K12B, filed with the SEC on April 15, 2020, as updated by the description of the Company's common stock contained in Exhibit 4.3 to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2020, filed with the SEC on September 23, 2020, together with any amendment or report filed for the purpose of updating such description.

Certain Current Reports on Form 8-K dated both prior to and after the date of this prospectus are or will be furnished to the SEC and shall not be deemed "filed" with the SEC and will not be incorporated by reference into this prospectus. However, all other reports and documents filed by us after the date of this prospectus under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the termination of the offering of the securities covered by this prospectus will also be deemed incorporated by reference in this prospectus and considered to be part of this prospectus from the date those documents are filed. If you make a request, orally or in writing, for any information that has been incorporated by reference into this prospectus but not delivered with this prospectus, we will provide you, without charge, a copy of any or all of that information. Requests for this information should be submitted in writing or by telephone at the following address or phone number:

Benitec Biopharma Inc.
3940 Trust Way
Hayward, CA 94545
(510) 780-0819
info@benitec.com

This prospectus is part of a registration statement we have filed with the SEC. You should rely only on the information incorporated by reference or provided in this prospectus, or any applicable prospectus supplement. No one else is authorized to provide you with different information. You should not rely on any other representations. We are not making an offer of these securities in any state where the offer is not permitted. Our affairs may change after this prospectus or any prospectus supplement is distributed. You should not assume that the information in or incorporated by reference into this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents. You should read all information supplementing or incorporated by reference into this prospectus or any prospectus supplement.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3, of which this prospectus is a part, including exhibits, schedules and amendments filed with, or incorporated by reference in, this registration statement, under the Securities Act, with respect to the securities registered thereby. This prospectus does not contain all of the information set forth in the registration statement and exhibits and schedules to the registration statement. For further information with respect to our company and the securities registered thereby, reference is made to the registration statement, including the exhibits to the registration statement. Statements contained in this prospectus as to the contents of any contract or other document referred to in, or incorporated by reference in, this prospectus are not necessarily complete and, where that contract is an exhibit to the registration statement, each statement is qualified in all respects by the exhibit to which the reference relates. Copies of the registration statement, including the exhibits and schedules to the registration statement, may be examined and copied (upon payment of applicable fees) at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. The SEC also maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The Internet address is www.sec.gov.

We are subject to the information and periodic reporting requirements of the Exchange Act, and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at www.benitec.com. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, 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 with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Prior to the Re-domiciliation, Benitec Limited was a "foreign private issuer." Information concerning Benitec Limited, including its annual reports on Form 20-F and current reports on Form 6-K, is also available free of charge on our website. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus, and any references to such website or any other website are inactive textual references only. You may also request a copy of these filings, at no cost, by writing us at 3940 Trust Way, Hayward, California 94545 or info@benitec.com or telephoning us at (510) 780-0819.

3,036,366 Shares of Common Stock

PROSPECTUS SUPPLEMENT

Sole Book-Running Manager

H.C. Wainwright & Co.

The date of this prospectus supplement is April 27, 2021