Financial Results & Corporate Update

1st Quarter 2023

May 8, 2023



This Slide Presentation Includes Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, but not limited to, statements concerning: BioNTech's expected revenues and net profit related to sales of BioNTech's COVID-19 vaccine, referred to as COMIRNATY® where approved for use under full or conditional marketing authorization, in territories controlled by BioNTech's collaboration partners, particularly for those figures that are derived from preliminary estimates provided by BioNTech's partners; the rate and degree of market acceptance of BioNTech's COVID-19 vaccine and, if approved, BioNTech's investigational medicines; expectations regarding anticipated changes in COVID-19 vaccine demand, including changes to the ordering environment and expected regulatory recommendations to adapt vaccines to address new variants or sublineages; the initiation, timing, progress, results, and cost of BioNTech's research and development programs, including those relating to additional formulations of BioNTech's COVID-19 vaccine, and BioNTech's current and future preclinical studies and clinical trials, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work and the availability of results; the expected impact of the Company's planned acquisition of InstaDeep Ltd. and collaboration and licensing agreements with OncoC4, Inc., Duality Biologics (Suzhou) Co. Ltd and others; the development of sustainable vaccine production and supply solutions and the nature and feasibility of these solutions; and BioNTech's estimates of commercial and other revenues, cost of sales, research and development expenses, sales and marketing expenses, general and administrative expenses, capital expenditures, income taxes, net profit, cash, cash equivalents and security investments, shares outstanding and cash outflows and share consideration. In some cases, forward-looking statements can be identified by terminology such as "will," "may," "should," "expects," "intends," "plans," "aims," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. The forward-looking statements in this presentation are neither promises nor guarantees, and you should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond BioNTech's control, and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to: BioNTech's pricing and coverage negotiations with governmental authorities, private health insurers and other third-party payors after BioNTech's initial sales to national governments; the future commercial demand and medical need for initial or booster doses of a COVID-19 vaccine; competition from other COVID-19 vaccines or related to BioNTech's other product candidates, including those with different mechanisms of action and different manufacturing and distribution constraints, on the basis of, among other things, efficacy, cost, convenience of storage and distribution, breadth of approved use, side-effect profile and durability of immune response; the timing of and BioNTech's ability to obtain and maintain regulatory approval for BioNTech's product candidates; the ability of BioNTech's COVID-19 vaccines to prevent COVID-19 caused by emerging virus variants: BioNTech's and its counterparties' ability to manage and source necessary energy resources; BioNTech's ability to identify research opportunities and discover and develop investigational medicines; the ability and willingness of BioNTech's third-party collaborators to continue research and development activities relating to BioNTech's development candidates and investigational medicines; the impact of the COVID-19 pandemic on BioNTech's development programs, supply chain, collaborators and financial performance; unforeseen safety issues and claims for potential personal injury or death arising from the use of BioNTech's COVID-19 vaccine and other products and product candidates developed or manufactured by BioNTech's BioNTech's and its collaborators' ability to commercialize and market BioNTech's COVID-19 vaccine and, if approved, its product candidates; BioNTech's ability to manage its development and expansion; regulatory developments in the United States and foreign countries; BioNTech's ability to effectively scale BioNTech's production capabilities and manufacture BioNTech's products, including BioNTech's target COVID-19 vaccine production levels, and BioNTech's product candidates; risks relating to the global financial system and markets; and other factors not known to BioNTech at this time. You should review the risks and uncertainties described under the heading "Risk Factors" in BioNTech's Report on Form 6-K for the period ended March 31, 2023 and in subsequent filings made by BioNTech with the SEC, which are available on the SEC's website at https://www.sec.gov/. Except as required by law, BioNTech disclaims any intention or responsibility for updating or revising any forwardlooking statements contained in this presentation in the event of new information, future developments or otherwise. These forward-looking statements are based on BioNTech's current expectations and speak only as of the date hereof.



Safety Information

COMIRNATY® ▼(the Pfizer-BioNTech COVID-19 vaccine) has been granted standard marketing authorization (MA) by the European Commission to prevent coronavirus disease 2019 (COVID-19) in the population aged 6 months and older. In people from 5 years of age and older the vaccine is administered as a 2-dose series, 3 weeks apart. Adults and adolescents from the age of 12 are given 30 micrograms per dose; children aged 5 to 11 years are given 10 micrograms per dose. There is a pediatric formulation containing 3 micrograms per dose available for infants and children 6 months to 4 years of age. In this age group, COMIRNATY on incrograms per dose available for infants and children from 5 to 11 years of age and older. A booster dose of COMIRNATY 10 micrograms may be given to children from 5 to 11 years of age at least 6 months after the second dose. In addition, the MA has been expanded to include a booster dose of COMIRNATY 10 micrograms may be given to children from 5 to 11 years of age at least 6 months after the perimany vaccination course. A third primary course dose may be administered at least 28 days after the second dose to 11 years of age and older. A booster dose of COMIRNATY 10 micrograms may be given to children from 5 to 11 years of age at least 6 months after the primary vaccination course. A third primary course dose may be administered at least 28 days after the second dose to have dose of coministered at least 28 days after the second dose to 12 days after the second dose in addition, or 11 years of age at least 6 months after the primary vaccination course. A third primary course dose of coministered at least 28 days after the second dose to 11 years of age and older. A booster dose of COMIRNATY Original/Omicron BA.1 subtantian to 11 years after primary vaccination or a booster dose of COMIRNATY Original/Omicron BA.4-5 (30 micrograms per dose) may be given to people aged 12 years and older who have received at least 3 months between administration of COMIRNATY Original/Omicron BA.4-5 (30 micrograms per

IMPORTANT SAFETY INFORMATION:

- Events of anaphylaxis have been reported. Appropriate medical treatment and supervision should always be readily available in case of an anaphylactic reaction following the administration of the vaccine.
- There is an increased, but very rare risk (<1/10,000 cases) of myocarditis and pericarditis following vaccination with COMIRNATY. These conditions can develop within just a few days after vaccination and have primarily occurred within 14 days. They have been observed more often after the second vaccination, and more often in younger males. Available data suggest that the course of myocarditis and pericarditis following vaccination is not different from myocarditis or pericarditis in general. From post-marketing experience very rare adverse reactions of myocarditis, Rarecases of acute peripheral facial paralysis; uncommon incidence of insomnia, hyperhidrosis and night sweats, dizziness common incidence of vomitting, very common diarrhoea and unknown incidence (wcan not be estimated from available data) anaphylaxis, of paraesthesia and erythema multiforme, extensive swelling of vaccinated limb, facial swelling (in vaccine recipients with a history of injection of dermatological fillers) and heavy menstrual bleeding(most case appeared to be non-serious and temporary in nature) have been identified after post-marketing experience. Anxiety-related reactions, including vasovagal reactions (syncope), hyperventilation or stress-related reactions (e. g. dizziness, palpitations, increases in heart rate, alterations in blood pressure, paresthesia, hypoesthesia and sweating) may occur in association with the vaccination provider for evaluation. It is important that precautions are in place to avoid injury from fainting.
- Vaccination should be postponed in individuals suffering from acute severe febrile illness or acute infection. The presence of a minor infection and/or low-grade fever should not delay vaccination.
- As with other intramuscular injections, the vaccine should be given with caution in individuals receiving anticoagulant therapy or those with thrombocytopenia or any coagulation disorder (such as haemophilia) because bleeding or bruising may occur following an intramuscular administration in these individuals.
- The efficacy, safety and immunogenicity of the vaccine has not been assessed in immunocompromised individuals, including those receiving immunosuppressant therapy. The efficacy of COMIRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 may be lower in immunosuppressed individuals.
- As with any vaccine, vaccination with COMIRNATY, ComiRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 may not protect all vaccine recipients. Individuals may not be fully protected until 7 days after their second dose of the vaccine.
- Adverse reactions observed during clinical studies and identified after post authorization experience are listed below according to the following frequency categories: Very common (≥ 1/10), Uncommon (≥ 1/100, to < 1/100), Rare (≥ 1/10,000 to < 1/100), Very rare (< 1/10,000), Very rare (< 1/10,000), Very rare (< 1/10,000), Very rare (< 1/10,000), Very rare (< 1/10,000)
- Very common side effects: injection site pain, injection site swelling, headache, muscle pain, chills, joint pain, diarrhea, fever, chills, fatigue
- · Common side effects: injection site redness, nausea, vomiting
- Uncommon side effects: enlarged lymph nodes (more frequently observed after the booster dose), feeling unwell, arm pain, insomnia, dizziness, injection site itching, allergic reactions such as rash, itching, urticaria or angioedema, feeling weak or lack of energy/sleepy, decreased appetite, excessive sweating, night sweats
- Rare side effects: temporary one-sided facial drooping
- Very rare side effects: inflammation of the heart muscle (myocarditis) or inflammation of the lining outside the heart (pericarditis), which can result in breathlessness, palpitations or chest pain.
- Not known indicence (cannot be estimated from the available data); anaphylaxis, extensive swelling of vaccinated limbs; facial swelling, pins and needles/tingling, reduced sense of touch or sensation, a skin reaction that causes red spots or patches on the skin, heavy menstrual bleeding
- A large amount of observational data from pregnant women vaccinated with the initially approved COMIRNATY vaccine during the second and third trimester have not shown an increase in adverse pregnancy outcomes. While data on pregnancy outcomes following vaccination during the first trimester are presently limited, no increases in sk for miscarriage has been seen. COMIRNATY can be used during pregnancy. No effects on the breast-feeding after vaccination have not shown a risk for adverse effects in breast-feed newborns/infants. COMIRNATY can be used during breast-feeding.
- No data are available yet regarding the use of COMIRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 during pregnancy. Since differences between products are confined to the spike protein sequence, and there are no clinically meaningful differences in reactogenicity between those COMIRNATY variant adapted vaccines that have been clinically evaluated. COMIRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 can be used during pregnancy.
- No data are available yet regarding the use of COMIRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 during breast-feeding. Observational data from women who were breast-feeding after vaccination with the initially approved COMIRNATY vaccine have not shown a risk for adverse effects in breast-feed newborns/infants. COMIRNATY Original/Omicron BA.4-5 can be used during breast-feeding
- Interactions with other medicinal products or concomitant administration of COMIRNATY, COMIRNATY Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 with other vaccines has not been studied.
- Animal studies with COMIRNATY Original do not indicate direct or indirect harmful effects with respect to reproductive toxicity.
- In an analysis of Study 3 (Phase 2/3), 1,776 infants (1,178 Comirnaty 3 mcg and 598 placebo) were 6 to 23 months of age that received any primary course dose included irritability (> 60%), drowsiness (> 40%), decreased appetite (> 30%), tenderness at the injection site (> 20%), injection site redness and fever (> 10%).
- The most frequent adverse reactions in children 2 to 4 years of age that received any primary course dose included pain at injection site and fatigue (> 40%), injection site redness and fever (> 10%).
- The overall safety profile of Comirnaty in participants 5 to 11 years of age was similar to that seen in participants 16 years of age and older. The most frequent adverse reactions in children 5 to 11 years of age that received 2 doses were injection site pain (> 80%), fatigue (> 50%), headache (> 30%), injection site redness and swelling (≥ 20%), myalgia, chills, and diarrhoea (> 10%).
- The overall safety profile for the booster dose was similar to that seen after the primary course. The most frequent adverse reactions in children 5 to 11 years of age were injection site pain (> 70%), fatigue (> 40%), headache (> 30%), myalgia, chills, injection site redness and swelling (> 10%)
- The overall safety profile of Comirnaty in adolescents 12 to 15 years of age was similar to that seen in participants 16 years of age and older. The most frequent adverse reactions in adolescents 12 to 15 years of age that received 2 doses were injection site pain (> 90%), fatigue and headache (> 70%), myalgia and chills (> 40%), arthralgia and pyrexia (> 20%)
- The most frequent adverse reactions in participants 16 years of age and older that received 2 doses were injection site pain (> 80%), fatigue (> 60%), headache (> 50%), myalgia (> 40%), chills (> 30%), arthralgia (> 20%), pyrexia and injection site swelling (> 10%) and were usually mild or moderate in intensity and resolved within a few days after vaccination. A slightly lower frequency of reactogenicity events was associated with greater age.
- The safety of a COMIRNATY Original/Omicron BA.1 booster dose in individuals from 18 to ≤ 55 years of age is extrapolated from a subset of 315 adults 18 to ≤ 55 years of age who received a booster (fourth dose) of Omicron BA.1 30 μg (monovalent) after completing 3 doses of COMIRNATY. The most frequent adverse reactions in these participants 18 to ≤ 55 years of age were injection site pain (> 70%), fatigue (> 60%), headache (> 40%), myalqia (> 30%), chills (> 30%) and arthralqia (> 20%).
- In a subset from Study 4 (Phase 3), 305 adults > 55 years of age who had completed 3 doses of COMIRNATY Original/Omicron BA.1 after receiving Dose 3. The overall safety profile for the COMIRNATY Original/Omicron BA.1 booster (fourth dose) was similar to that seen after the COMIRNATY booster (third dose). The most frequent adverse reactions in participants greater than 55 years of age were injection site pain (> 50%), fatigue (> 40%), headache (> 30%), myalgia (> 20%), chills and arthralgia (> 10%). No new adverse reactions were identified for COMIRNATY Original/Omicron BA.1.
- The safety of a booster dose of COMIRNATY Original/Omicron BA.4-5 is inferred from safety data for a booster dose of COMIRNATY Original on individuals 5 years of age and older.
- The duration of protection afforded by the vaccine is unknown as it is still being determined by ongoing clinical trials. As with any vaccine, vaccination with Comirnaty Original/Omicron BA.1 or COMIRNATY Original/Omicron BA.4-5 may not protect all vaccine recipients
- For complete information on the safety of COMIRNATY, COMIRNATY Original/Omicron BA.1 and COMIRNATY Original/Omicron BA.4-5, always make reference to the approved Summary of Product Characteristics and Package Leaflet available in all the languages of the European Union on the EMA website.

 The black equilateral triangle ▼ denotes that additional monitoring is required to capture any adverse reactions. This will allow quick identification of new safety information. Individuals can help by reporting any side effects can be reported to EudraVigilance or directly to BioNTech using email medinfo@biontech.de.



Safety Information

AUTHORIZED USE IN THE U.S.

COMIRNATY® (COVID-19 Vaccine, mRNA)

- COMIRNATY® (COVID-19 Vaccine, mRNA) is an FDA-approved COVID-19 vaccine for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 12 years of age and older. It is also authorized as a third primary series dose to individuals 12 years of age and older who have certain kinds of immunocompromise.
- The COVID-19 vaccine is FDA authorized under Emergency Use Authorization (EUA) for use in individuals 6 months and older to provide:
 - the first 2 doses of the 3-dose primary series for children 6 months through 4 years of age.
 - a 2-dose primary series to individuals 5 years through 11 years of age
 - · a third primary series dose to individuals 5 years and older with certain kinds of immunocompromise

Pfizer-BioNTech COVID-19 Vaccine, Bivalent (Original and Omicron BA.4/BA.5)

- Pfizer-BioNTech COVID-19 Vaccine, Bivalent (Original and Omicron BA.4/BA.5) is FDA-authorized under Emergency Use Authorization (EUA) to prevent COVID-19 as:
 - the third dose of the 3-dose primary series following 2 doses of the monovalent* Pfizer-BioNTech COVID-19 Vaccine in children 6 months through 4 years of age; or
 - a single booster dose in children 6 months through 4 years of age at least 2 months after completion of primary vaccination with 3 doses of the monovalent Pfizer-BioNTech COVID-19 Vaccine; or
 - a single booster dose at least 2 months after completion of either primary vaccination with any authorized or approved COVID-19 vaccine in individuals 5 years of age and older.

EMERGENCY USE AUTHORIZATION

Emergency uses of the vaccines have not been approved or licensed by FDA but have been authorized by FDA under an Emergency Use Authorization (EUA) to prevent Coronavirus Disease 2019 (COVID-19) in individuals aged 6 months and older for the Pfizer-BioNTech COVID-19 Vaccine and 5 years and older for the Pfizer-BioNTech COVID-19 Vaccine, Bivalent. The emergency uses are only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of the medical product under Section 564(b)(1) of the FD&C Act unless the declaration is terminated or authorization revoked sooner.

IMPORTANT SAFETY INFORMATION

Pfizer-BioNTech COVID-19 Vaccine, Bivalent (Original and Omicron BA.4/BA.5), COMIRNATY® (COVID-19 Vaccine, mRNA) and Pfizer-BioNTech COVID-19 Vaccine

- Do not administer Pfizer-BioNTech COVID-19 Vaccine to individuals with known history of a severe allergic reaction (e.g., anaphylaxis) to any component of the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent.
- · Warnings:
 - Management of Acute Allergic Reactions: Appropriate medical treatment used to manage immediate allergic reactions must be immediately available in the event an acute anaphylactic reaction occurs following administration of Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine,

 Rivelant
 - Monitor Pfizer-BioNTech COVID-19 Vaccine recipients for the occurrence of immediate adverse reactions according to the Centers for Disease Control and Prevention (CDC) guidelines (https://www.cdc.gov/vaccines/covid-19/clinicalconsiderations/managing-anaphylaxis.html)
 - Myocarditis and Pericarditis: Postmarketing safety data with Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent are relevant because these vaccines are manufactured using the same process.
 - Postmarketing data with authorized or approved Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent, demonstrate increased risks of myocarditis and pericarditis, particularly within the first week following receipt of the second primary series dose or first booster dose, with most booster doses likely administered at least 5 months after completing primary vaccination. For the Pfizer-BioNTech COVID-19 Vaccine, the observed risk is higher among adolescent males and adult males under 40 years of age. Although some cases required intensive care support, available data from short-term follow-up suggest that most individuals have had resolved resolved resolved and primary vaccination including for vaccination of individuals with a history of myocarditis of pericarditis (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/myocarditis into./myocarditis into./myocarditis into./myocarditis into./myocarditis into./myocarditis into./myocarditis and pericarditis and pericarditis after vaccination of individuals with a history of myocarditis or pericarditis (https://www.cdc.gov/vaccines/covid-19/clinical-considerations/myocarditis.html).
 - Syncope
 - · Syncope (fainting) may occur in association with administration of injectable vaccines, in particular in adolescents. Procedures should be in place to avoid injury from fainting.
 - Altered Immunocompetence
 - Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent.
- Limitation of Effectiveness
 - Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent may not protect all vaccine recipients.
- Adverse reactions reported with the vaccine include:
 - Adverse Reactions in Clinical Trials
 - Adverse reactions following administration of a booster dose of the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent that have been reported in clinical trials include injection site pain, fatigue, headache, muscle pain, chills, joint pain, injection site swelling, fever, injection site redness. lymphadenopathy, nausea, malaise, pain in extremity, rash, decreased appetite, vomiting, diarrhea (see Full EUA Prescribing Information).
 - · Adverse Reactions Identified in Post Authorization Experience
 - Severe allergic reactions, including anaphylaxis, and other hypersensitivity reactions (e.g., rash, pruritus, urticaria, angioedema), diarrhea, vomiting, pain in extremity (arm), syncope, and dizziness have been reported following administration of the Pfizer-BioNTech COVID-19 Vaccine.
 - Myocarditis and pericarditis have been reported following administration of the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent.
 - Additional adverse reactions, some of which may be serious, may become apparent with post-authorization use of the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent.
- · Use with Other Vaccines
 - There is no information on the co-administration of the Pfizer-BioNTech COVID-19 Vaccine or the Pfizer-BioNTech COVID-19 Vaccine, Bivalent, with other vaccines.



1st Quarter 2023 Highlights Ugur Sahin, Chief Executive Officer

Pipeline Update
Özlem Türeci, Chief Medical Officer

Financial Results

Jens Holstein, Chief Financial Officer

Strategic Outlook
Ryan Richardson, Chief Strategy Officer

1st Quarter 2023 Highlights Ugur Sahin, Chief Executive Officer



2023 Strategic Priorities and Achievements in Q1 2023

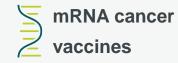
COVID-19 franchise ¹	Immuno-oncology		Infectious diseases		
2023 Strategic Priorities	Contract of	A STATE OF THE STA	Sales and the sales are a sales and the sales are a sa		
Sustain leadership in COVID-19 vaccines Advance next-gen vaccines	Advance platforms fo Initiate multiple poten	r solid tumors tially registrational trials	Initiate and accelerate clinical programs for high need indications		
Q1 Achievements					
Label Expansion:	Significantly expanded technology platform portfolio				
BA.4-5 in young children	2 new collabo	orations			
	DualityBio:	OncoC4:			
Next-generation vaccine candidate programs	ADCs – A promising combination backbone	A differentiated anti- CTLA-4 antibody	2 new clinical programs		
New manuscript in <i>Cell</i>	to our pipeline	program	Tuberculosis ² BNT164		
Preclinical data on T cell string (BNT162b4)			Shingles ³ BNT167		



Partnered with Pfizer; 2. Collaboration with Bill & Melinda Gates Foundation; 3. Partnered with Pfizer.
 ADC = Antibody-drug conjugate; CTLA-4 = Cytotoxic T-Lymphocyte-Associated Protein 4.

Long-Term Strategy: Expand Treatment Options for Solid Tumor Patients

Solid tumor growth segments







Next-generation checkpoint immunomodulators



ADCs

Vision:

Address the full continuum of cancer treatment

Bring novel therapies to cancer patients and establish new treatment paradigms

Open up novel options to combine platforms and therapies

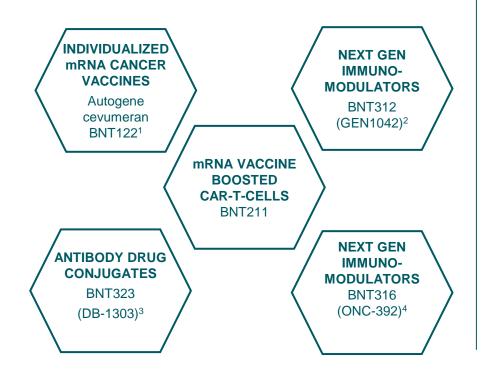
Strategy:

Programs across a wide range of solid tumors and stages of treatment

Programs with first-in-class and / or best-in-class potential

In unique combinations

Focus programs:





^{1.} Partnered with Genentech, member of Roche Group; 2. Partnered with Genmab; 3. Partnered with DualityBio; 4. Partnered with OncoC4 ADC = antibody-drug conjugate

A New Drug Class – ADCs: Now Part of our Disruptive Technology Toolkit to Fight Human Diseases

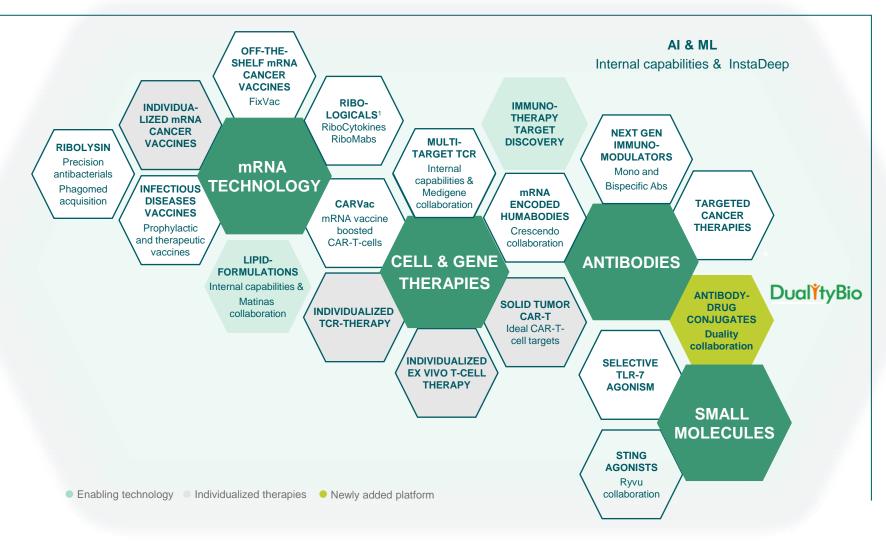
Core principles of our technology strategy

Technology agnostic approach rooted in deep fundamental understanding of biology

Build novel platforms with the ability to produce multiple product candidates

Open up new combination opportunities which leverage synergistic modes of action

Enable individualization of treatment





¹ mRNA encoded cancer-targeting antibodies and cytokines.

Al = Artificial intelligence; ML = Machine learning; CAR = chimeric antigen receptor; TLR = Toll-like receptor; STING = stimulator of interferon genes.

Antibody-Drug Conjugates: A Proven Technology with Untapped Potential

ADCs are composed of three key components¹

Payload

 Highly potent cytotoxic compounds typically derived from natural sources

Main types:

- 1. DNA crosslinker
- 2. Microtubule inhibitor
- 3. DNA alkylator
- 4. Topoisomerase inhibitor



- Conjugates the payload to the antibody
- Should remain stable in the circulation while allowing selective intracellular and extracellular release

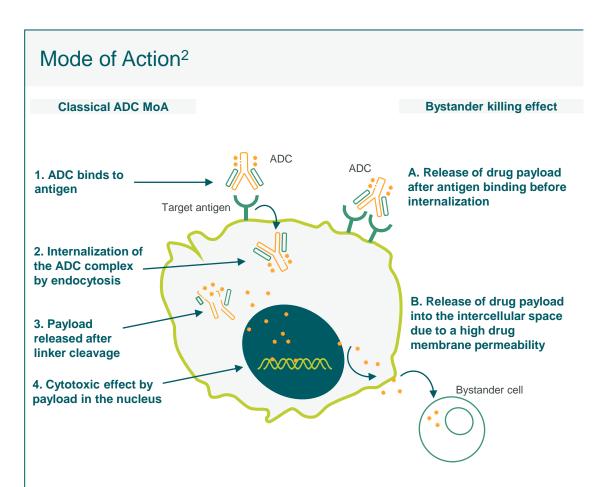
Two main types:

1. Cleavable

Antibody

2. Non-cleavable

Each of these three components can vary between different ADCs, which may lead to contrasting pharmacological and clinical properties.



A promising combination backbone to our pipeline

1. Jabbour E. et al. Nat Rev Clin Oncol. 2021. 2. Coleman N.et al. npj Precis. Onc. 2023.

ADC = Antibody-drug conjugate; Ig = Immunoglobuline; MoA = Mode of action.



Our 3rd Generation ADCs May Overcome Hurdles of Currently Approved ADCs

ADC

drug class

Clinical

strategy*

development

A proven technology with first FDA approval in 2000¹

 Today 14 different ADCs approved in various cancer indications from late line to 1L metastatic settings¹

 ADCs precisely deliver cytotoxic payloads to tumors, potentially replacing traditional highly toxic chemotherapy regimens²

 One of the fastest growing drug classes of oncology drugs in development²

Phase 1/2 in HER2+ solid tumors ongoing, expansion cohorts in progress:^{3,4}

- Breast cancer
- Endometrial cancer
- · Gastrointestinal cancer
- HER2-mutated non-small cell lung cancer

3rd generation ADCs with pharmacokinetic properties that may contribute to an increased therapeutic window:⁵

• superior systemic stability

DB-1303*

Combination

potential

- · rapid systemic clearance of released payload
- · efficient bystander killing
- sustained tumor-selective drug release
- well-tolerated in animal models at repeated dosing up to 80 mg/kg



- Could replace chemotherapy and complement IO combinations
- Potential to unlock larger patient population



3rd generation ADCs

ADC = Antibody-drug conjugate; FDA = Food and Drug Administration; IO = Immuno-oncology; HER2 = human epidermal growth factor 2; 1L = first line.



Advancing Toward Our Vision

Globally successful marketed COVID-19 vaccine with first-to-market BA.4-5-adapted booster



Oncology



Infectious diseases

20 programs in 24 clinical trials

7 programs in 8 clinical trials

6 Phase 2 trials

1 Phase 2 trial

1 Phase 3 trial

Driving transformation today

Next-generation and combination COVID-19 vaccines

Multiple oncology and infectious disease product launches in next 3-5 years

5-10 IND submissions per year

Mid-term goals

Maintain and deepen COVID-19 vaccine leadership

Approved products across various disease areas

Cardiovascular diseases
Neurodegenerative diseases
Autoimmune diseases

Long-term vision

By 2030, we aim to be a multi-product global biotechnology leader, working to address the world's most pressing health challenges with pioneering, disruptive technologies delivered at scale



Pipeline & COVID-19 Vaccines Update Özlem Türeci, Chief Medical Officer



Well-Positioned with our Cancer Vaccine Portfolio Across Multiple Solid Tumors

Multiple trials ongoing (4 Phase 2) with cancer vaccine candidates in multiple disease settings

iNeST ¹			FixVac				
Adju	uvant	1L	R/R	Multiple settings	1L	R/R	Multiple settings
CRC	PDAC	Melanoma	Multiple Solid Tumors	Prostate Cancer	HPV16+ HNSCC	Melanoma	NSCLC
Autogene cevumeran (BNT122) Monotherapy	Autogene cevumeran (BNT122) + 1x Atezolizumab	Autogene cevumeran (BNT122) + Pembrolizumab	Autogene cevumeran (BNT122) + Atezolizumab	BNT112 Monotherapy & + Cemiplimab + ADT	Pembrolizumab +/- BNT113	BNT111 +/- Cemiplimab	BNT116 Monotherapy & Cemiplimab or CTx

- Ph 2 study is ongoing
- Data presented from investigator-initiated Ph 1 study at ASCO 2022
- Ph 2 study planned to start in 2023

- Ph 2 enrollment completed
- Analysis of PFS as primary endpoint will be triggered event-based and defines when we will report results
- · Ph 1 data presented
- Publication in preparation

- Ph 1/2 is ongoing
- Ph 2 study is ongoing

- Ph 2 study is ongoing
- Ph 1 basket study is ongoing
- Ph 2 in 1L NSCLC planned to start in 2023

¹ Partnered with Genentech, member of Roche Group

iNeST = individualized NeoAntigen Specific Immunotherapy; ADT = androgen deprivation therapy; 1L = First line; R/R = relapsed/refractory; NSCLC = Non-small cell lung cancer; HPV = Human papillomavirus; CRC = Colorectal cancer; HNSCC = head and neck squamous carcinoma; PDAC = pancreatic ductal adenocarcinoma; PFS = Progression-free survival; Pembro = Pembrolizumab; mFOLFIRINOX = modified FOLFIRINOX.

Oncology Pipeline: Achievements in Q1 2023

Drug Class	Phase 1 (5 First-in-Human)	Phase 1/2	Phase 2
		BNT112 Prostate cancer	BNT111 aPD1-R/R melanoma, + Cemiplimab
mRNA	BNT116 2L NSCLC	BNT113 ¹ HPV16+ head and neck cancer	BNT113 1L rec./met. HPV16+ PDL1+ head and neck cancer, + Pembrolizumab
	Autogene cevumeran (BNT122) ² Multiple solid tumors	BNT141 (CLDN18.2) Multiple solid tumors	Autogene cevumeran (BNT122) ² 1L Adv. melanoma, + Pembrolizumab
	BNT131 (SAR441000) ³ Solid tumors (IL-12sc, IL15-sushi, GM-CSF, IFNα)	BNT142 (CLDN6) Multiple solid tumors	Autogene cevumeran (BNT122) ² Adjuvant colorectal cancer
	BNT152 + BNT153 Multiple solid tumors (IL-7, IL-2)	BNT151 (IL-2 variant) Multiple solid tumors	
Cell therapy	BNT221 Refractory metastatic melanoma	BNT211 (CLDN6) Multiple solid tumors	
	BNT321 Pancreatic cancer (sLea)	BNT311 (GEN1046) ⁴ (PD-L1x4-1BB) Multiple solid tumors	BNT311 (GEN1046) ⁴ (PD-L1x4-1BB) aPD1-R/R NSCLC, + Pembrolizumab
	BNT322 (GEN1056) ⁴ Multiple solid tumors (undisclosed)	BNT312 (GEN1042) ⁴ (CD40x4-1BB) Multiple solid tumors	BNT316 (ONC-392) ⁵ (CTLA-4) PlatR ovarian cancer, + Pembrolizumab
Protein-based Thoronouties		BNT313 (GEN1053) ⁴ (CD27) Multiple solid tumors	
Therapeutics		BNT316 (ONC-392) ⁵ (CTLA-4) Multiple solid tumors	EW
		BNT323 (DB-1303) ⁶ (HER2) Multiple solid tumors	EW
SMIM		BNT411 (TLR7) Multiple solid tumors	

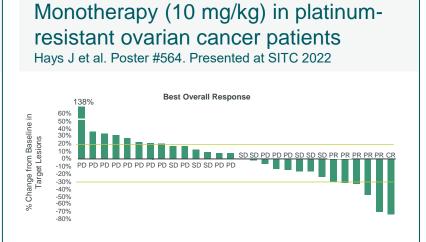
^{1.} Investigator-initiated / Investigator-initiated and sponsored trial; 2. Partnered with Genentech, member of Roche Group; 3. Partnered with Sanofi; 4. Partnered with Genmab; 5. Partnered with OncoC4; 6. Partnered with DualityBio.

NSCLC = Non-small cell lung cancer; HPV = Human papillomavirus; CLDN = Claudin; IL = Interleukin; 1L =



MoA Designed to Allow Higher Dosing & Longer Duration of BNT316 (ONC-392) Treatment¹

Mode of Action Liu Y. et al. Abstract # 231, SITC 2021. Autoimmunity Recycling endosome FCR Anti-tumor immunity



BNT316 (ONC-392) (3 or 6 mg/kg) in combination with pembrolizumab

Hu-Lieskovan et al. Poster #594. Presented at SITC 2022



Safety data and study conclusions

- BNT316 (ONC-392) dosed as monotherapy and in combination with pembrolizumab were well tolerated
 - TRAE were manageable, no DLTs, MTD not reached
 - Monotherapy RP2D: 10 mg/kg, Combination RP2D: 6 mg/kg
- Preliminary data demonstrated lower irAE rate than observed for comparable IO or IO-IO combinations
- Safety profile of BNT316 (ONC-392) allows for higher dosing and longer duration of treatment in monotherapy and in combination with pembrolizumab

NEW Data at ASCO 2023

NSCLC data update from PRESERVE-001 study

Abstract # 9024; Poster #12 and Presented in Poster Discussion Session, June 4, 4:30 PM GMT





^{1.} Partnered with OncoC4.

MTD = Maximum tolerated dose; RP2D = Recommended phase 2 dose; DLT = Dose-limiting toxicity; TRAE = Treatment related adverse event; NSCLC = Non-small cell lung cancer; irAE = immune-related adverse event; IO = immuno-oncologic.

First Phase 3 Study planned: BNT316 (ONC-392) in IO R/R NSCLC¹

PRESERVE-003 (NCT05671510)

Randomized, open-label, active controlled, multi-center Phase 3 trial

Stage I (dose-confirmation stage): Stage II: Assess efficacy and safety of two Assess safety and efficacy of BNT316 (ONC-392) dosing regimens BNT316 (ONC-392) at the selected in comparison to docetaxel dosing regimen versus docetaxel **Inclusion criteria** ≥ 18 years stage IV, metastatic BNT316 (ONC-392) **NSCLC** 6mg/kg with 2 loading doses of 10mg/kg, Q3W (N=40) BNT316 (ONC-392) Prior PD-(L)1 +/- platinum-based (N=240)chemotherapy R 1:1:1 TBD: mg/kg, Q3W BNT316 (ONC-392) R 1:1 N=120 Prior IO-IO allowed 3mg/kg, Q3W (N=40) N=480 Docetaxel 75 mg/kg, Q3W (N=240) ECOG Performance Status: 0 or 1 Have RECIST 1.1 measurable Docetaxel 75 mg/kg, Q3W (N=40) **lesions Key endpoints** Historic efficacy of docetaxel monotherapy **Trial in Progress** (Garon et al. Lancet. 2014): **Primary:** OS ORR \sim 10%; mPFS = 3 months; PRESERVE-003 study, Abstract # TPS9146, Poster mOS = 9 monthsTime: June 4, 8:00 AM-11:00 AM GMT, Poster #130b Secondary: ORR, PFS, Safety

^{1.} Partnered with OncoC4..

PD-1 =Programmed cell death protein 1; IO = immuno-oncology; NSCLC = Non-small cell lung cancer; R/R = Relapsed/Refractory; Q3W = Every three weeks; OS = Overall survival; ORR = Objective response rate; PFS = Progression free survival; ECOG = Eastern Cooperative Oncology Group.

3rd-generation **ADCs** with improved safety and efficacy may bring added survival benefit to cancer patients

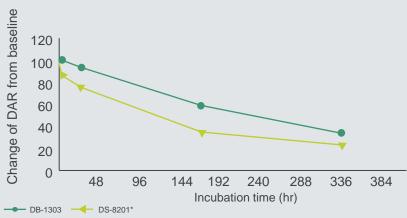
BNT323 (DB-1303)¹ pharmacokinetic and -dynamic properties may contribute to an increased therapeutic window



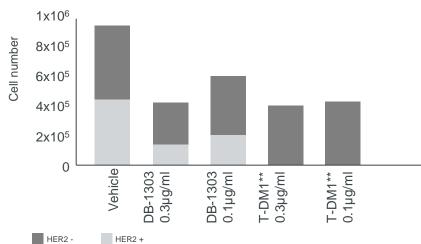
Lin S. et al. Abstract #252. Presented at EORTC-NCI-AACR in 2022

Partnered with DualityBio.
 ADC = Antibody-drug conjugate; HER = human epidermal growth factor receptor; cmax = maximum concentration; DAR = Drug antibody ratio.

Superior *in vitro* plasma stability in human plasma

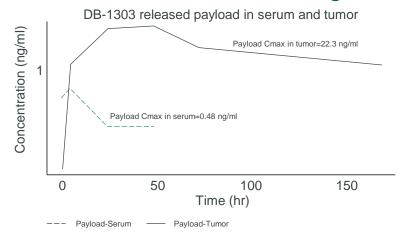


Efficient bystander killing in tumor cell lines

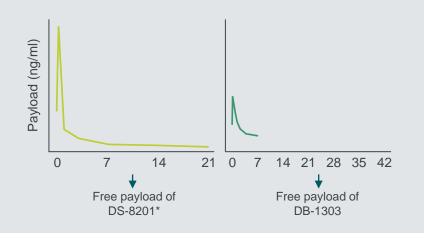


*DS-8201 is an in-house produced analog of DS-8201, Trastuzumab deruxtecan.

Sustained tumor-selective drug release in tumor-bearing mice



Rapid systemic clearance in monkeys



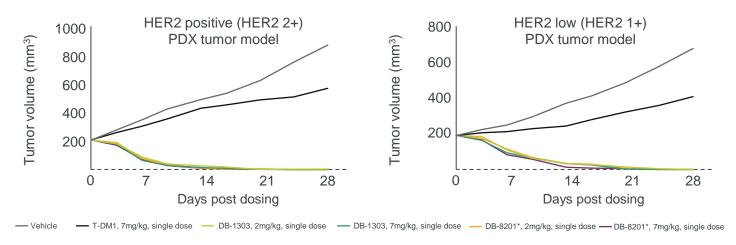


^{**}Trastuzumab-Emtansin.

BNT323 (DB-1303): Preclinical Data Show Anti-Tumor Effect and Favorable Safety Profile in HER2 Positive & HER2 Low Tumor Models and Toxicity Studies¹

Efficacy data

- BNT323 (DB-1303) induced dose-dependent tumor growth inhibition and tumor regression
- Potent anti-tumor effect in both, HER2 positive and HER2 low tumor models with a wide therapeutic window



*DS-8201 is a in-house produced analog of DS-8201, Trastuzumab deruxtecan

Safety data

- Toxicity studies in cynomolgus monkey showed improved safety profile compared to published profile of DS-8201
 - Highest non-severely toxic dose 80mg/kg
- DB-1303 showed lowered risk of causing lung inflammation compared to published profile of DS-8201
 - No ILD-like lung toxicity
- Stable linker and fast clearance may contribute to the superior safety profile of DB-1303

Lin S. et al. Abstract #252. Presented at EORTC-NCI-AACR in 2022.

Partnered with DualityBio.

HER = human epidermal growth factor receptor; ILD = interstitial lung disease; PDX = patient-derived xenograft.



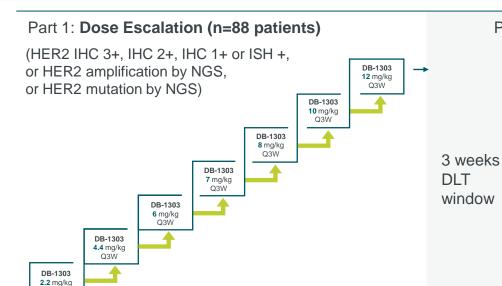
FIH Phase 1/2 to Evaluate Safety and Tolerability of BNT323 (DB-1303) in Patients with Advanced HER2+ Solid Tumors¹

Phase 1/2a study design (NCT05150691), multicenter, non-randomized, open-label, multiple-dose, FIH study

Hamilton E. et al. TiP #9504. Presented at AACR 2023

Inclusion criteria

- Pretreated advanced or metastatic solid tumors
- Histologically confirmed HER2-positive or HER2expressing cancers
- Previous systemic therapies
- ECOG 0-1
- Adequate organ function



Part 2a: Dose expansion (n=165 patients)

Indications

- HER2+ gastric, esophageal or gastroesophageal junction adenocarcinoma, CRC
- HR+/HER2-low breast cancer
- HER2+ breast cancer
- HER2 overexpression and HER2-low endometrial cancer
- HER2-mutated NSCLC

Disease progression, withdrawal of consent, unacceptable toxicity

FPI: Jan 2022

Objective: To assess safety, tolerability, pharmacokinetic, preliminary anti-tumor activity at the selected MTD/RP2D

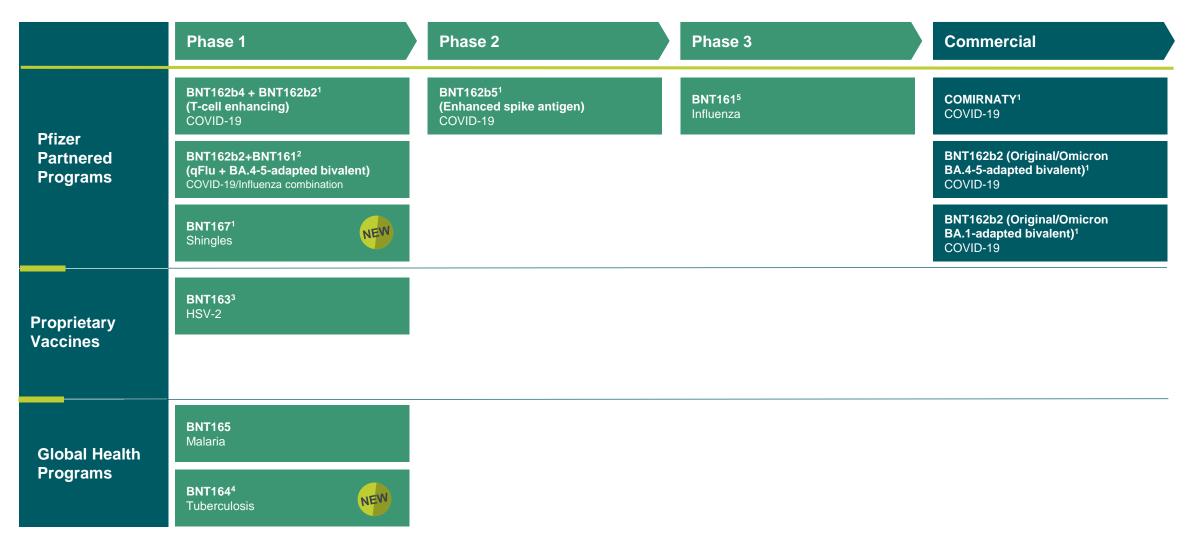
Q3W

. Partnered with DualityBio.

IHC = immunohistochemistry; FIH = First in human; Q3W = every three weeks; DLT = dose limiting toxicity; HER2 = human epidermal growth factor 2; HR = hormone receptor; CRC = colorectal cancer; NSCLC = non-small cell lung cancer; MTD = maximum tolerated dose; RP2D = recommended phase 2 dose; ECOG = Eastern Cooperative Oncology Group; FPI = First patient in; LPO = Last patient out; ISH = in-situ hybridization; NGS = next-generation sequencing.



Infectious Disease Pipeline: Achievements in Q1 2023



^{1.} Partnered with Pfizer; 2. Collaboration with PFE and subject to reaching agreement with our partners; 3. Collaboration with University of Pennsylvania; 4. In collaboration with Bill & Melinda Gates Foundation; 5. Exclusive license to Pfizer. HSV = Herpes simplex virus.



Initiated Phase 1/2 Trial of Tuberculosis mRNA-LNP Vaccine Candidates¹

Unmet medical need

Tuberculosis is the second leading infectious killer worldwide after COVID-19 (above HIV/AIDS)²

Current prophylaxis treatment has seen limited uptake due to variable efficacy and pathogen drug-resistance

Ending tuberculosis epidemic by 2030 still one of the health targets of the United Nations Sustainable Development Goals²

Objective of vaccine development

Development of mRNA vaccine candidates, encoding bacterial antigens for active immunization against tuberculosis

Development of a prophylactic vaccine against tuberculosis

Elimination of tuberculosis through effective immunization

Target population & trial design³



Target population:

IGRA-negative and positive, BCG naïve and vaccinated healthy adults.

Clinical trials in Germany (non-endemic) and South Africa (endemic)



Trial design:

Three-dose schedule $(0 / \sim 8 \text{ W} / \sim 16 \text{ W})$, 2 candidates, 6 dose levels

Primary endpoints: Safety

Exploratory endpoints: Immune response



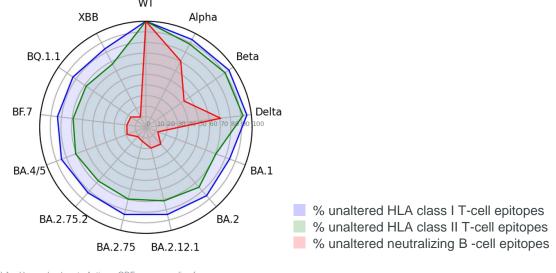
COVID-19 Franchise: Being Actionable in the Face of a Dynamic Virus Evolution and Building for Continued Success

T cell immune response may continue to contribute to prevention or limitation of severe disease

Muik A. et al. bioRxiv pre-print. 2022



- Progressive loss of conserved B cell epitopes for spike protein neutralizing antibody sites in Omicron sublineages
- Preservation of HLA class I and class II presented T-cell epitopes across the evolution of SARS-CoV-2 spike protein
- T-cell recognition of newly occurring variants of concern may be largely intact

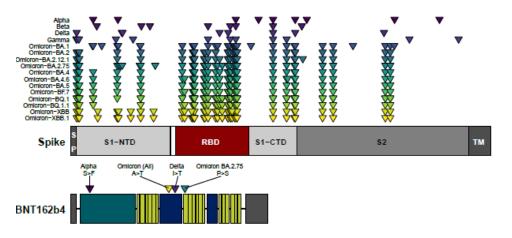


Induction of T cell responses to non-spike SARS-CoV-2 antigens to broaden the immune response and address immune evasion of new variants of concern Cel

Arieta C. et al. Cell.2023. DOI: 10.1016/j.cell.2023.04.007

The cell string (BNT162b4) encodes variant-conserved, immunogenic segments of the SARS-CoV-2 nucleocapsid, membrane, and ORF1ab proteins, targeting diverse HLA alleles

- mRNA vaccine component designed to enhance T cell immunity
- variant-conserved, immunogenic segments of SARS-CoV-2 proteins
- Intended to be combined with the variant-adapted spike protein vaccine component (BNT162b2)



HLA = Human Leukocyte Antigen; ORF = open reading frame



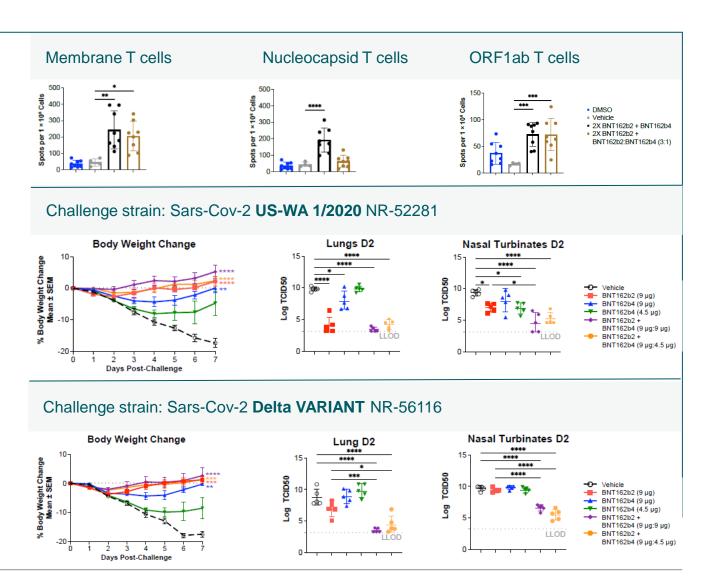
Next-Generation COVID-19 Vaccine Component Candidate BNT162b4 Encoding Conserved Non-Spike Antigens Protects Animals from Severe COVID-19¹

In animal models

- Elicits polyfunctional CD4+ and CD8+ T cell responses
- Non-spike specific T cells increased by both BNT162b4 monovalent vaccination and in combination with spike protein component
- __ BNT162b2
 - Protects hamsters from severe disease,
- reduces viral titers with viral variants

 Effective alone or when co-administered with BNT162b2

BNT162b4 is currently being evaluated in a clinical trial with BA.4-5 Omicron-updated bivalent BNT162b2 (NCT05541861)¹



Arieta C. et al. Cell.2023. DOI: 10.1016/j.cell.2023.04.007

1. Partnered with Pfizer.

3 Financial Results Jens Holstein, Chief Financial Officer



Q1 2023 Key Highlights¹

Total revenues²

Operating result

Diluted EPS

Total cash plus security investments³

³ Consists of cash and cash equivalents of €12,143.9 million and security investments of €671.9 million, as of March 31, 2023. The payment settling our gross profit share for the fourth quarter of 2022 (as defined by the contract) in the amount of €3,961 million was received from our collaboration partner subsequent to the end of the reporting period as of April 14, 2023. M&A activities and recent collaboration and license agreements announced in the first quarter did not lead to cash outflows until March 31, 2023. Cash outflows and share considerations in connection with the planned acquisition of InstaDeep and the upfront payments of the collaboration and license agreements with OncoC4 and Duality Biologics of approximately €0.8 billion are expected (subject to change and excluding future potential earn-out and milestone payments).



BIONTECH

¹ Financial information is prepared and presented in Euros and numbers are rounded to millions and billions of Euros in accordance with standard commercial practice.

² BioNTech's profit share is estimated based on preliminary data shared between Pfizer and BioNTech as further described in the Annual Report on Form 20-F for the year ended December 31, 2022 as well as the Quarterly Report as of and for the three months ended March 31, 2023, filed as an exhibit to BioNTech's Current Report on Form 6-K filed on May 8, 2023.

Q1 2023 Financial Results: Profit or Loss

(in millions €, except per share data)¹

Three months ended March 31,

	2023	2022
Commercial revenues ²	1,276.5	6,362.2
Research & development revenues	0.5	12.4
Total revenues	1,277.0	6,374.6
Cost of sales	(96.0)	(1,294.1)
Research and development expenses	(334.0)	(285.8)
Sales and marketing expenses	(12.2)	(14.3)
General and administrative expenses	(119.4)	(90.8)
Other operating income less expenses	(61.0)	63.1
Operating income	654.4	4,752.7
Finance income less expenses	53.3	265.4
Income taxes	(205.5)	(1,319.3)
Profit for the period	502.2	3,698.8
Earnings per share		
Basic profit for the period per share	2.07	15.13
Diluted profit for the period per share	2.05	14.24

¹ Numbers have been rounded, numbers presented may not add up precisely to the totals and may have been adjusted in the table context. Presentation of the unaudited interim consolidated statements of profit or loss has been condensed.

² BioNTech's profit share is estimated based on preliminary data shared between Pfizer and BioNTech as further described in the Annual Report on Form 20-F for the year ended December 31, 2022, as well as the Quarterly Report as of and for the three months ended March 31, 2023, filed as an exhibit to BioNTech's Current Report on Form 6-K filed on May 8, 2023. Any changes in the estimated share of the collaboration partner's gross profit will be recognized prospectively.



2023 Financial Year Guidance Reiterated¹

COVID-19 vaccine revenues for FY 2023	Estimated BioNTech COVID-19 vaccine revenues	~ €5 bn
Planned FY 2023 expenses and capex	R&D expenses ²	€2,400 – 2,600 m
	SG&A expenses	€650 – 750 m
	Capital expenditure for operating activities ³	€500 – 600 m
Estimated FY 2023 tax assumptions	BioNTech Group estimated annual cash effective income tax rate	~ 27%



¹ Numbers reflect current base case projections and are calculated based on constant currency rates.

² Numbers include effects identified from additional collaborations or potential M&A transactions to the extent disclosed and will be updated as needed.

³ Numbers exclude potential effects caused by or driven from collaborations or M&A transactions.

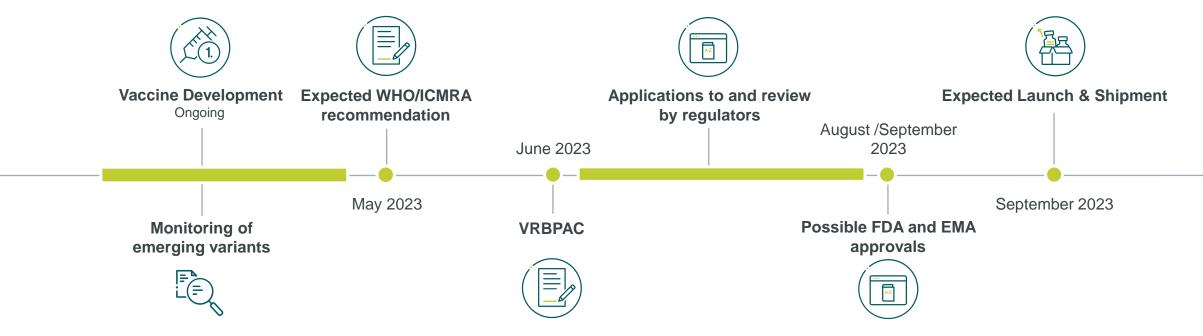
Strategic Outlook Ryan Richardson, Chief Strategy Officer



Outlook for COVID-19 Vaccine Franchise in 2023

- Launch Comirnaty vaccine adapted to the 2023 seasonal SARS-CoV-2 variant, as recommended by regulatory authorities
- Introduce single-dose ready to use vial
- Advance key Comirnaty features (e.g., extension of shelf-life)
- Advance next generation COVID-19 vaccines

Expected timeline for variant-adapted vaccine development:



WHO = World Health Organisation; ICMRA = International Coalition of Medicines Regulatory Authorities; VRBPAC = Vaccines and Related Biological Products Advisory Committee; FDA = Food and Drug Administration; EMA = European Medicines Agency



COVID-19 Market Outlook

2023 market dynamics & outlook

- Doses already shipped to >70 countries and regions
- Increased deliveries in middle-income and low-income countries in Q1 2023
- Increased contribution from pediatric segment in Q1 2023
- U.S. commercial market opening expected in 2H 2023 in conjunction with launch of variant-adapted vaccine

Potential mid-term growth drivers



Value proposition could support increased vaccination rate in at-risk populations once global seasonal market is established



Continued product innovation

- Variant adapted vaccines
- Next-generation vaccines
- Vaccine combinations



Commercial pricing



Multiple Late- and Early-Stage Pipeline Milestones Expected in 2023

Modality	Indication	Program	Select milestones	Anticipated timing			
mRNA vaccines for infectious disease	COVID-19 ¹	BA.4-5-adapted bivalent	Pediatric label expansion	2H 2023	/	Clinical Data at ASC	
	COVID-19 – influenza Combination ^{1,2}	BA.4-5-adapted bivalent+ BNT161	Phase 1 data update	2023			
	Malaria	BNT163	Phase 1 data update	2H 2023		BNT316 (ONC-392) Abstract #9024	
	HSV-2 ³	BNT165	Phase 1 data update	2H 2023		Poster Presentation	
	Shingles ¹	BNT167	Phase 1 data update	2023	/		
	Tuberculosis ⁴	BNT164	Phase 1 FPD April 2023		/	BNT211	
iNeST	1L melanoma ⁵	Autogene Cevumeran (BNT122)	Phase 2 data update	2H 2023 ⁶		Abstract #2518 Poster Presentation	
individualized	Adjuvant CRC5	Autogene Cevumeran (BNT122)	Phase 2 data update	-		1 Oster i resentation	
mRNA vaccines	Adjuvant PDAC ⁵	Autogene Cevumeran (BNT122)	Phase 2 FPD	2023		BNT323 (DB-1303)	
Next-gen immune checkpoint modulators	Multiple solid tumors ⁷	BNT311 (PD-L1x4-1BB)	Expansion cohort data update	2023		Abstract #3023 Poster	
	Multiple solid tumors ⁷	BNT312 (CD40x4-1BB)	Expansion cohort data update	2023			
	2L NSCLC ⁸	BNT316 (CTLA-4)	Phase 3 FPD	2023			
Cell therapies	CLDN6+ solid tumors	BNT211	Phase 1 data update	2023			
	2L+ testicular cancer	BNT211	Phase 2 FPD	2024			



SAVE THE DATE



Annual General Meeting May 25, 2023



Innovation Series Day
November 7, 2023



Thank you

