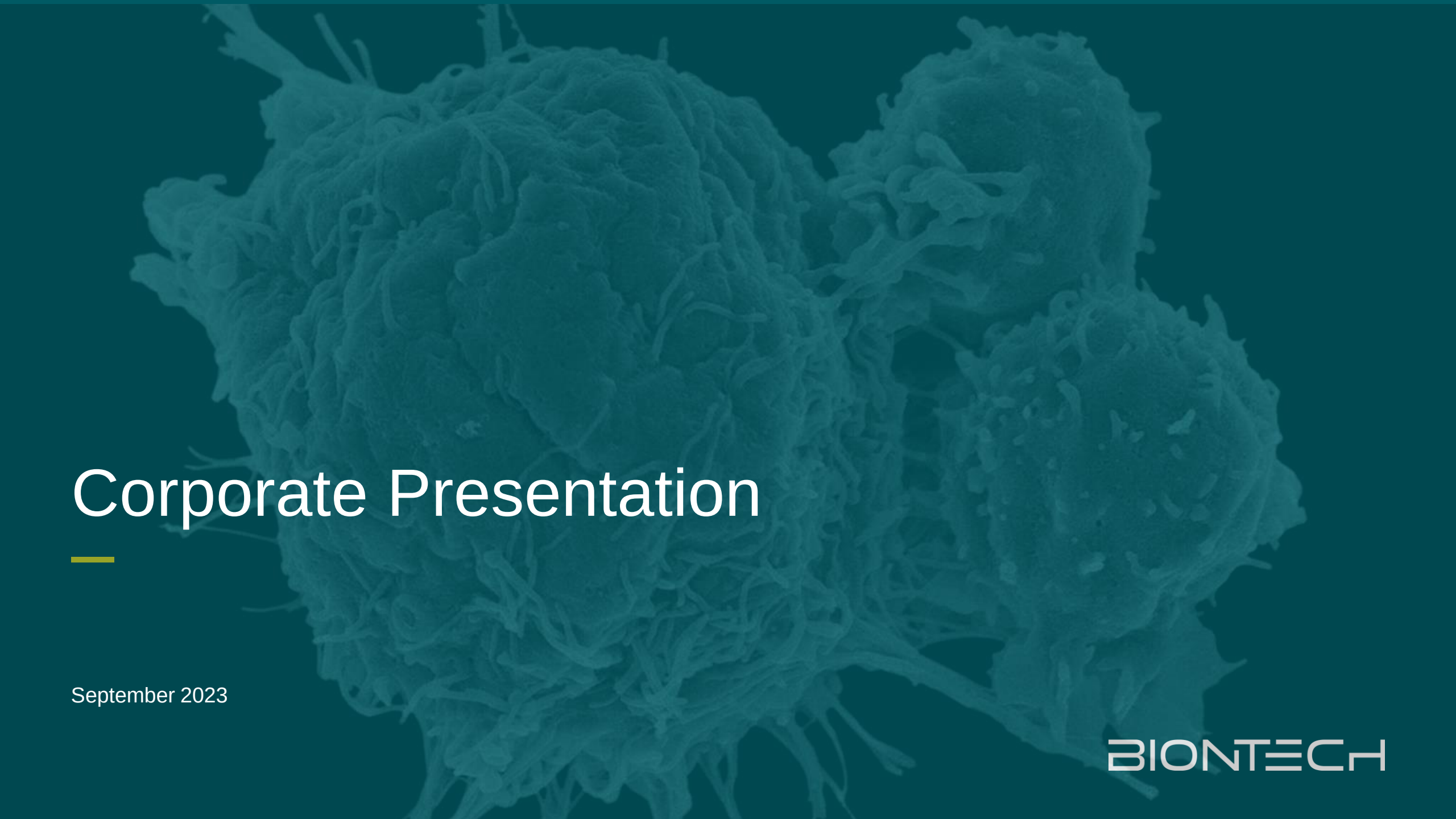


Corporate Presentation

September 2023

BIONTECH

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; our expectations with respect to our intellectual property; the impact of the Company's 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; 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 other 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 June 30, 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 forward-looking 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.

A Global Immunotherapy Leader

COVID-19 VACCINE GLOBAL LEADERSHIP[1]

>60 % Comirnaty **Market Share**[2]

€ 5 bn 2023 FY **Revenue Guidance**

Adapted COVID-19 Vaccine for 2023/2024 Season
Variant selected XBB.1.5

Approved in the U.S., EU, UK and Japan

STRONG FINANCIAL POSITION

€ 16.8 bn **Total cash** plus security investments[3]

MULTIPLATFORM ONCOLOGY PORTFOLIO

19 **Clinical programs** across

9 **Therapeutic modalities** and

11 **Platforms**

Innovative approaches for early and advanced solid tumors

EXPANDING INFECTIOUS DISEASE PIPELINE

7 **Clinical programs** in high unmet need indications

Growing **proprietary pipeline**

Partnership with Pfizer in respiratory and other high need indications

BROAD COLLABORATION NETWORK

Pfizer · Genentech (A Member of the Roche Group) · REGENERON · Genmab · DualityBio · OncoC4

LEADER IN ARTIFICIAL INTELLIGENCE

InstaDeep™

Multiple Registrational Trials Expected to Start in 2023/2024

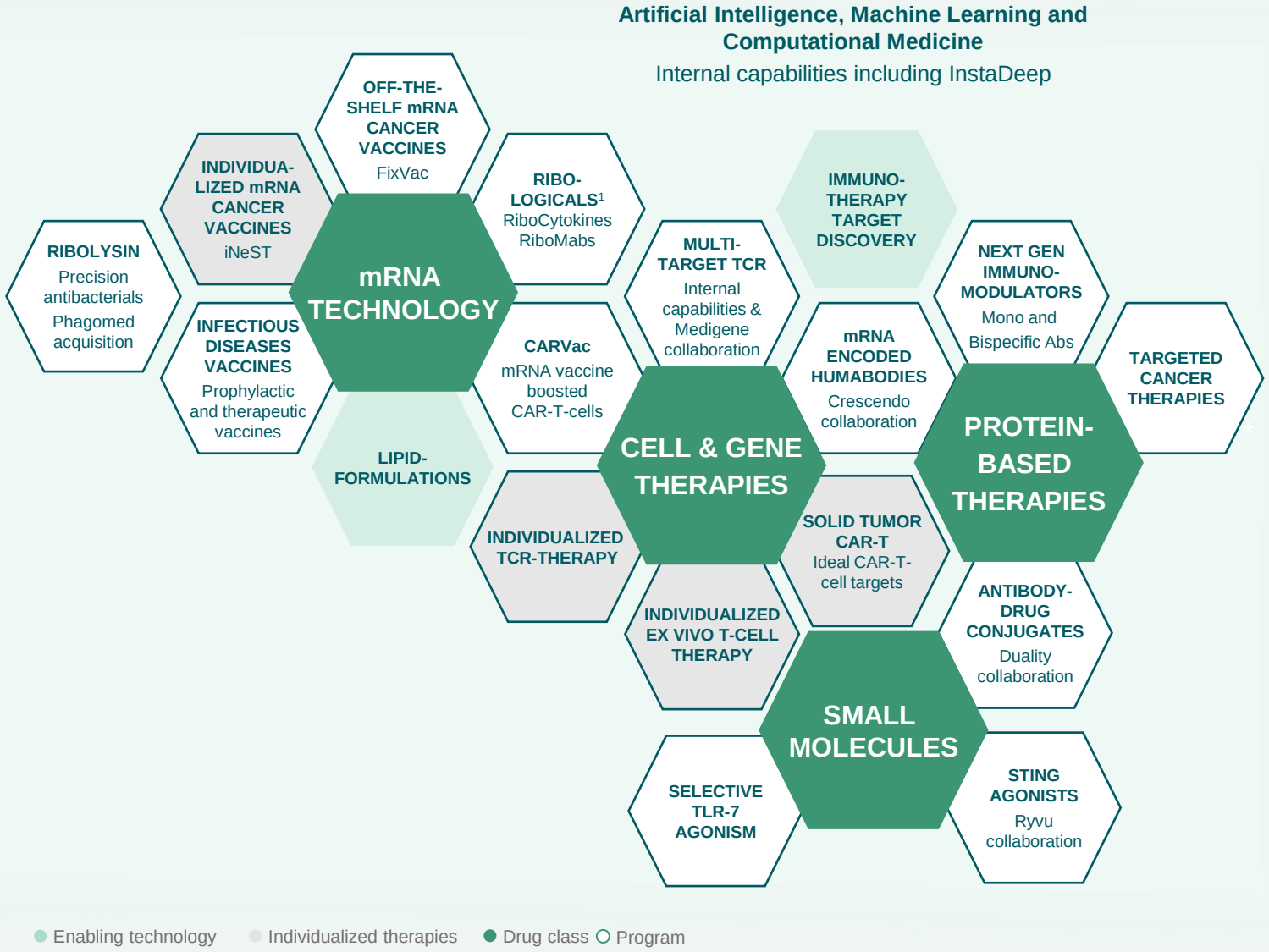
Building a multi-product global biotechnology company to address the world's most pressing health challenges with pioneering technologies delivered at scale

1. Partnered with Pfizer; 2. as of Q2 2023; 3. Consists of cash and cash equivalents of €14,166.6 million and security investments of €2,667.0 million, as of June 30, 2023. Cash outflows and share considerations in connection with the acquisition of InstaDeep as of July 31, 2023 approximately €450 million invested not including potential future milestones. The payment settling our gross profit share for the first quarter of 2023 (as defined by the contract) in the amount of €1,059 million was received from our collaboration partner subsequent to the end of the reporting period as of July 17, 2023. In addition, until early August 2023, €438 million were received in connection with the amended COVID-19 Vaccine Purchase Agreement with the European Commission.

Multi-Technology Innovation Engine

Core principles of our technology strategy

- Multi-technology-driven 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 and accelerate individualization of treatment
- Leverage AI-powered drug discovery, design and development



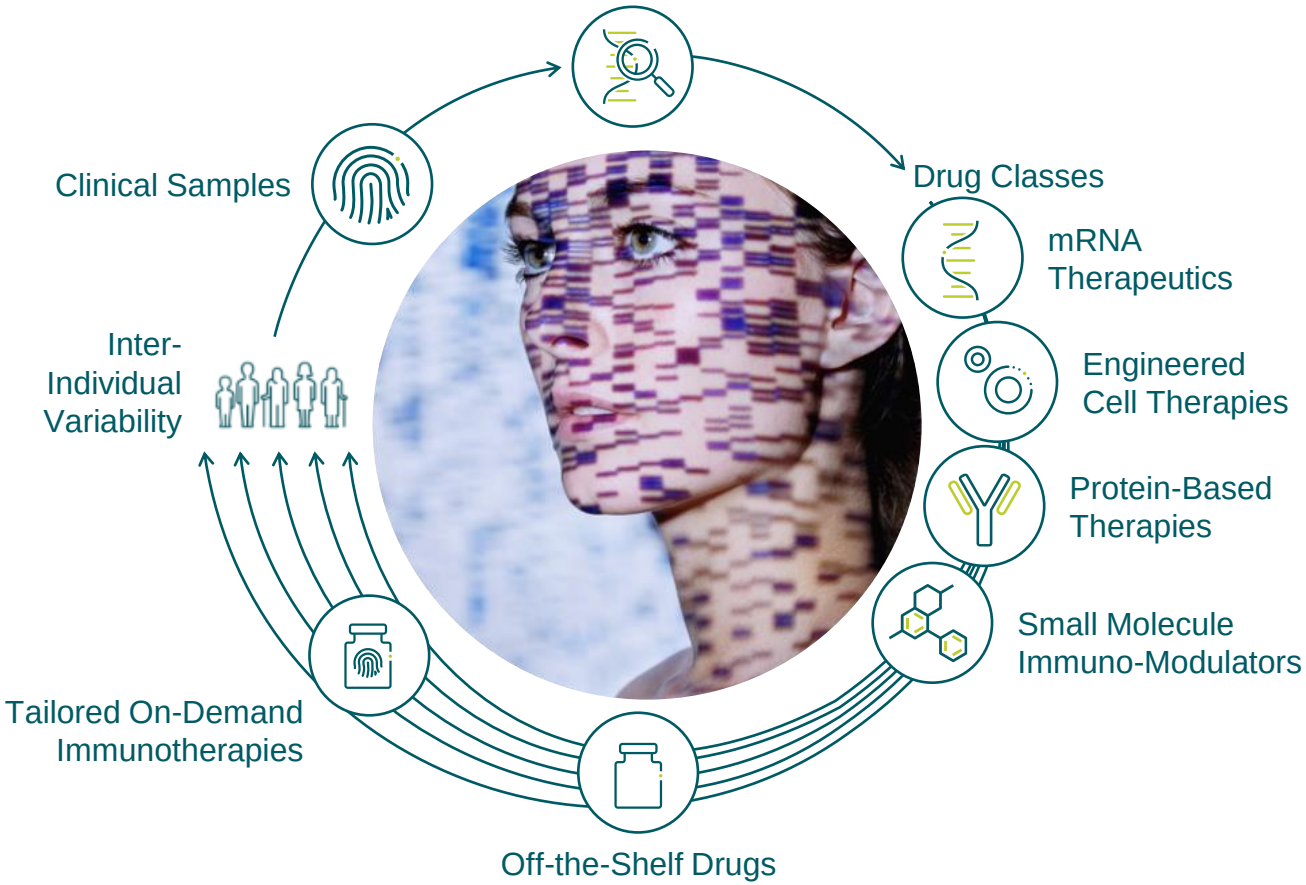
1 mRNA encoded cancer-targeting antibodies and cytokines.
CAR = chimeric antigen receptor; TLR = Toll-like receptor; TCR = T-cell receptor; Abs = Antibodies; STING = stimulator of interferon genes.

BIONTECH

Uniquely Positioned to Deliver Individualized Cancer Medicine Candidates

Integrated model for immuno-oncology to transform R&D and patient care at scale

- AI & digitally-integrated target & drug discovery and development
- Individualized treatment platforms to address inter-individual variability
- Deep genomics & immunology expertise to leverage patient data
- Automated manufacturing to serve patients on time and globally



AI = Artificial Intelligence; R&D = Research and Development.

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

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

Unique therapeutic combinations

Near-Term Goals

- Multiple trials with registrational potential expected to be initiated in 2023-2024
- Build-out of oncology commercial capabilities to accelerate in 2023-2024
- Goal of commercial readiness in the U.S., E.U. and other selected regions to support first potential oncology launches from 2026 onwards[1]
- Anticipate further M&A and/or product candidate in-licensing to complement organic pipeline advancement

Focus Programs

Autogene cevumeran (BNT122)[2]

BNT323/ DB-1303[5]

BNT316/ONC-392 (gotistobart)[3]
BNT312 (GEN1042)[4]

BNT211

1. Subject to regulatory approvals; 2. Partnered with Genentech, member of Roche Group; 3. Partnered with OncoC4, 4. Partnered with Genmab; 5. Partnered with DualityBio.
M&A = Merger and Acquisitions.

Advancing and Expanding Broad Clinical Oncology Pipeline

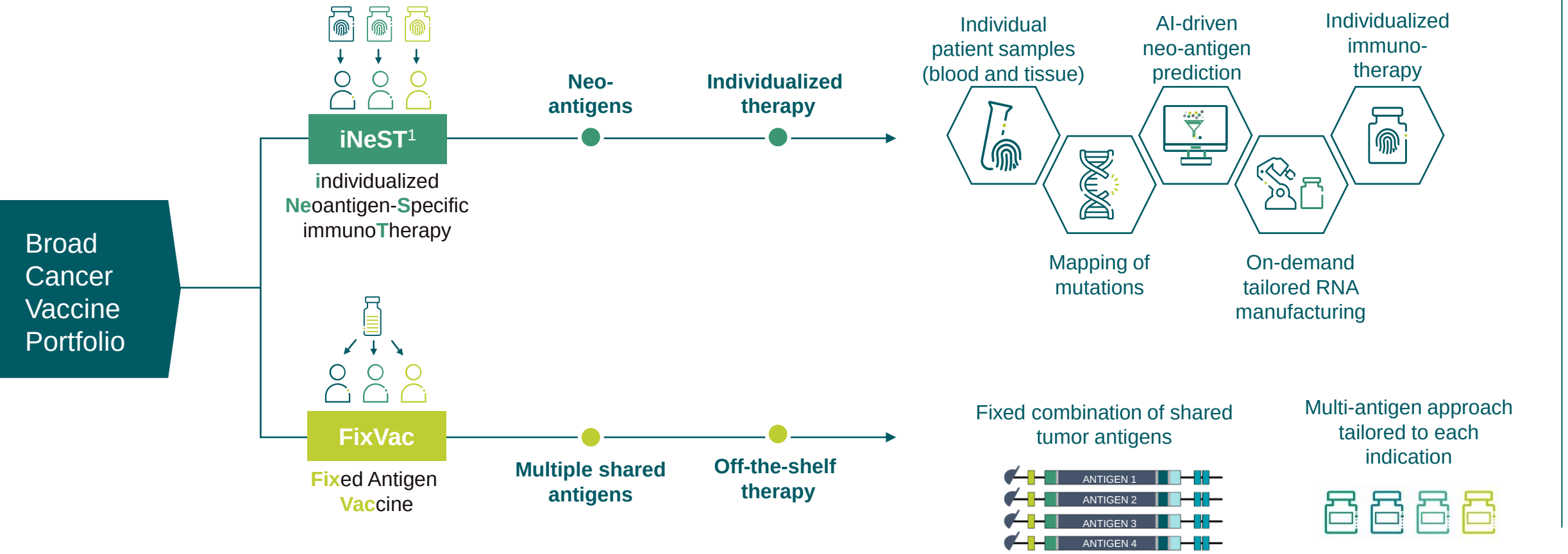
Drug Class	Phase 1	Phase 1/2	Phase 2	Phase 3
mRNA	**BNT116** Metastatic NSCLC	**BNT112**[3] Prostate cancer	**BNT111**[3] aPD(L)1-R/R melanoma, + cemiplimab	**Autogene cevumeran (BNT122)**[2] 1L Adv. melanoma, + Pembrolizumab
	BNT122 (Autogene cevumeran)[2] Multiple solid tumors	**BNT142** (CLDN6) Multiple solid tumors	**BNT113** 1L rec./met. HPV16+ PDL1+ head and neck cancer, + Pembrolizumab	**Autogene cevumeran (BNT122)**[2] Adj. CRC
	BNT122 (Autogene cevumeran)[1, 2] Adj. PDAC	**BNT151** (IL-2 variant) Multiple solid tumors	**BNT116**[3] 1L NSCLC NEW	**Autogene cevumeran (BNT122)**[2] Adj. PDAC PLANNED
	BNT152 + BNT153 (IL-7, IL-2) Multiple solid tumors			
	BNT131 (SAR441000)[7] Solid tumors (IL-12sc, IL15-sushi, GM-CSF, IFNα)			
Cell therapy	**BNT221** Refractory metastatic melanoma	**BNT211** (CLDN6) Multiple solid tumors		
Protein-based therapeutics	**BNT321** (sLea) Pancreatic cancer	**BNT311/GEN1046**[4] (PD-L1x4-1BB) Multiple solid tumors	**BNT311/GEN1046**[4] (PD-L1x4-1BB) aPD(L)1-R/R NSCLC, + Pembrolizumab	**BNT316/ONC-392 (gotistobart)**[5], (CTLA-4) Plat.-R ovarian cancer, + Pembrolizumab
	BNT322/GEN1056[4] Multiple solid tumors	**BNT312/GEN1042**[4]* (CD40x4-1BB) Multiple solid tumors		**BNT316/ONC-392 (gotistobart)**[5] **(CTLA-4)** aPD(L)1-R/R NSCLC NEW
		BNT313/GEN1053[4] (CD27) Multiple solid tumors		
		BNT316/ONC-392 (gotistobart)[5] (CTLA-4) Multiple solid tumors		
		BNT323/DB-1303[6] (HER2) Multiple solid tumors		
		BNT324/DB-1311[6] Advanced solid tumors PLANNED		
		BNT325/ DB-1305[6] Multiple solid tumors NEW		
SMIM		**BNT411** (TLR7) Multiple solid tumors		

Data announced in Q2

1. Investigator-initiated / Investigator-initiated and sponsored trial; 2. Partnered with Genentech, member of Roche Group; 3. Partnered with Regeneron; 4. Partnered with Genmab; 5. Partnered with OncoC4; 6. Partnered with DualityBio; 7. Partnered with Sanofi, study status active; recruitment stopped; program discontinued; NSCLC = Non-small cell lung cancer; HPV = Human papillomavirus; CLDN = Claudin; IL = Interleukin; 1L = first line; TLR = Toll-like receptor; R/R = Relapsed/Refractory; Plat.-R. = Platinum-resistant; ADC = Antibody-drug conjugate; SMIM = small molecule immunomodulator; *2 Phase 1/2 clinical trials in patients with solid tumors are ongoing in combination with immune checkpoint inhibitor +/- chemotherapy

Towards Next-Generation mRNA Cancer Vaccines

mRNA cancer vaccines may enable highly specific and potent activation of the immune system against shared tumor antigens or individual neo-antigens



1 iNeST is being developed in collaboration with Genentech, a member of the Roche Group.
mRNA = messenger RNA; AI = artificial intelligence.

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Growing Portfolio of Cancer Vaccine Candidates Across Multiple Solid Tumors

Four ongoing Phase 2 trials with cancer vaccine candidates in multiple disease settings

mRNA vaccine candidates							
iNeST[1]				**FixVac**			
Adjuvant		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 started in Q3 2023[2]

1 Partnered with Genentech, member of Roche Group; 2 Partnered with Regeneron.
MRNA = messenger RNA; iNeST = individualized NeoAntigen Specific Immunotherapy;1L = First line; R/R = relapsed/refractory; CRC = Colorectal cancer; PDAC = pancreatic ductal adenocarcinoma; HPV = Human papillomavirus; HNSCC = head and neck squamous carcinoma; NSCLC = Non-small cell lung cancer; ADT = androgen deprivation therapy; CTx = Chemotherapy; PFS = Progression-free survival.

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iNeST | Autogene cevumeran (BNT122)[1]

Autogene cevumeran induces neoantigen-specific T-cell responses[2]

In a Phase 1 trial in multiple solid tumors autogene cevumeran demonstrated:

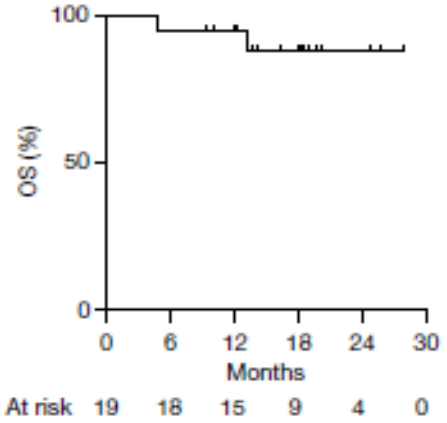
- Ability to elicit significant T-cell responses of both effector and memory phenotype as monotherapy and in combination (multiple patients with > 5% T-cell response per neo-epitope)
- CD8+ T cell infiltrate tumors in CPI-sensitive and CPI-insensitive tumor types
- Treatment-related adverse events were primarily transient systemic reactions, manifesting as low-grade CRS, IRR or flu-like symptoms
- Initial signals of clinical activity observed as single agent and in combination with atezolizumab

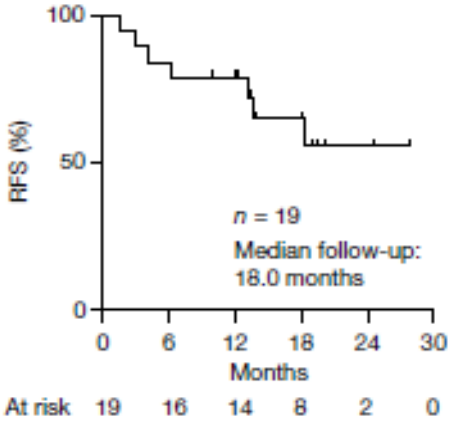
Next step

Initiation of Phase 2 trial evaluating autogene cevumeran (BNT122) in the adjuvant setting in patients with pancreatic ductal adenocarcinoma in 2023

Autogene cevumeran (BNT122) in adj. PDAC

recently published in Nature[3]





Key takeaways:

- **~90% of PDAC patients** typically have disease recurrence at a median of 7-9 months[4,5]
- **OS and RFS** were not reached at a median follow-up of 18 months
- **mRNA vaccine** response correlated with delayed disease recurrence
- Vaccine-expanded **T cells were durable and persisting** for up to 2 years

'1. Partnered with Genentech, member of the Roche Group; 2. Lopez J, et al. AACR Annual Meeting 2020; Oral presentation CT301; 3. Rojas LA et al. Nature. 2023; 4. Oettle H et al. JAMA. 2013; 5. Neoptolemos JP et al. NEJM. 2004.
CPI = checkpoint inhibitor; CRS = cytokine release syndrome; IRR = infusion-related reactions; PDAC = Pancreatic ductal adenocarcinoma; OS = overall survival, RFS = Relapse-free survival

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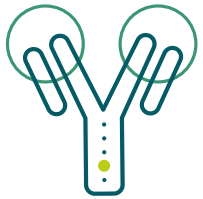
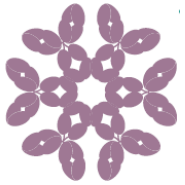
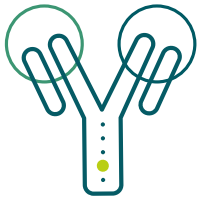
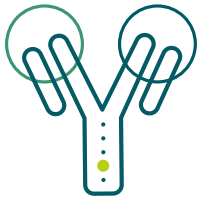
Well-Positioned with Protein-Based Therapeutic Candidates Across Multiple Tumors

MONOCLONAL ANTIBODY[1]	BISPECIFIC ANTIBODIES[2]			ANTIBODY DRUG CONJUGATES[3]		
BNT316/ ONC-392 (gotistobart)	**BNT313/ GEN1053**	**BNT312/ GEN1042**	**BNT311/ GEN1046**	**BNT323/ DB-1303**	**BNT324/ DB-1311**	**BNT325/ DB-1305**
Anti-CTLA4	Anti-CD27	Anti CD40 Anti- 4-1BB	Anti-PD-L1 Anti- 4-1BB	HER2 HER2	Target Target	Target Target
						
Monospecific antibody targeting CTLA-4 optimized for effective Treg killing and higher ADCC/ADCP	Monospecific HexaBody targeting CD27 on naïve and activated T cells	Bispecific antibody targeting CD40 on APCs and 4-1BB on activated T cells	Bispecific antibody targeting PD-L1 on tumor cells and 4-1BB on activated T cells	3rd generation antibody drug conjugate targeting HER2, cleavable linker and topoiso-merase I inhibitor	Antibody drug conjugate, cleavable linker and topoisomerase I inhibitor	Antibody drug conjugate, cleavable linker and topoisomerase I inhibitor

1. Partnered with OncoC4; 2. Partnered with Genmab; 3. Partnered with DualityBio. CTLA4 = Cytotoxic T-Lymphocyte-Associated Protein 4; CD27, CD40, 4-1BB = members of the tumor necrosis factor receptor superfamily; PD-1 =Programmed cell death protein 1; HER2 = human epidermal growth factor receptor 2; ADCC = Antibody dependent cell-mediated cytotoxicity; ADCP = Antibody dependent cellular phagocytosis

Multiple Trials Ongoing with Complementary Modalities in Various Disease Settings

Protein-Based Therapeutic Candidates									
Monoclonal Antibodies[1]			**Bispecific Antibodies[2]**				**Antibody Drug Conjugates[3]**		
Multiple Solid Tumors	Plat.-R ovarian cancer	aPD1-R/R NSCLC	aPD1-R/R NSCLC	Multiple Solid Tumors			Multiple Solid Tumors	Advanced Solid Tumors	Multiple Solid Tumors
BNT316/ ONC-392 (gotistobart) (CTLA-4) +/- Pembro-lizumab	**BNT316/ ONC-392** (gotistobart) (CTLA-4) + Pembro-lizumab	**BNT316/ ONC-392** (gotistobart) (CTLA-4)	**BNT311 (GEN1046)** (PD-L1x4-1BB) +/- Pembro-lizumab	**BNT311 (GEN1046)** (PD-L1x4-1BB) +/- Pembro-lizumab/ Chemotherapy	**BNT312 (GEN1042)** (CD40x4-1BB) +/- Pembro-lizumab/ Chemotherapy	**BNT313 (GEN1053)** (Hexabody CD27)	**BNT323/ DB-1303** (HER2)	**BNT324/ DB-1311**	**BNT325/ DB-1305**
Ph 1/2 study is ongoing Data presented at SITC 2021, 2022 and ASCO 2023	Ph 2 study is ongoing	Ph3 started in Q2 2023	Ph 2 study is ongoing Positive preclinical data presented at AACR 2023	Ph 1/2 study ongoing	Ph 1/2 study ongoing Data presented at ESMO IO 2022	Ph 1 study initiated in November 2022	Ph 1/2 is ongoing Data presented at ASCO 2023	Ph 1/2 study planned in 2H 2023	Ph1/2 study ongoing

1. Partnered with OncoC4; 2. Partnered with Genmab; 3. Partnered with DualityBio.
CTLA4 = Cytotoxic T-Lymphocyte-Associated Protein 4; CD27, CD40, 4-1BB = members of the tumor necrosis factor receptor superfamily; PD-1 =Programmed cell death protein 1; HER2 = human epidermal growth factor receptor 2;

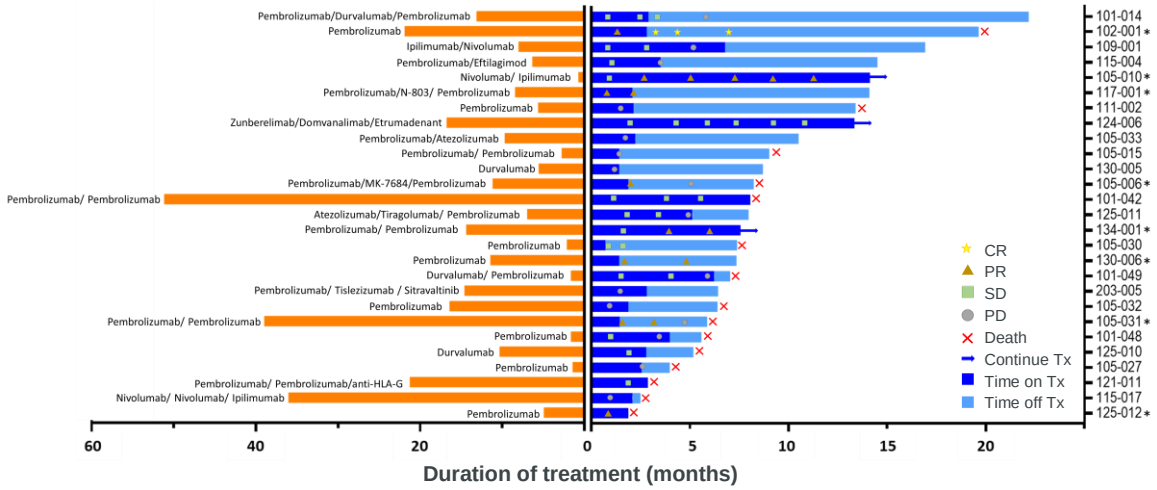
ASCO 2023: Results Support Initiation of a Phase 3 Study with BNT316/ONC-392 (gotistobart)[1] in ICI-resistant NSCLC

PRESERVE-001: Phase 1/2a study design (NCT04140526), multicenter, non-randomized, open-label, multiple-dose, FIH study
He K. et al. Presented at ASCO 2023. Abstract #9024.

Anti-tumor activity observed in ICI-resistant NSCLC patients (n=27)

- ORR 29.6% (22.2% confirmed and 7.4% unconfirmed)
- DCR: 70.4%

Responders include those that failed multiple IO agents targeting PD-(L)1, CTLA-4, and TIGIT:



All 27 evaluable patients had prior platinum-based chemotherapy
The * indicates responders to BNT316/ONC-392 (gotistobart) monotherapy

Manageable adverse events with BNT316/ONC-392 (gotistobart) (10 mg/kg x 2 then 6 mg/kg, q3w)

Summary of overall safety (n=35), no Gr.5 AE:	
Any TRAE	**26 (74%)**
TRAE: Gr. 3-4	15 (43%)
Any irAEs	19 (54%)
irAE: Gr. 3-4	12 (34%)

Key takeaways:

- BNT316/ONC-392 (gotistobart) was generally safe and tolerated; treatment-related AEs were manageable
- Preliminary data demonstrated lower irAE rate than observed for comparable IO or IO-IO combinations
- Anti-tumor activity in patients with ICI-resistant NSCLC observed

Initiated Phase 3 trial (PRESERVE-003) evaluating BNT316/ONC-392 (gotistobart) as monotherapy in patients with metastatic, ICI-resistant NSCLC

1. Partnered with OncoC4.
PD-1 =Programmed cell death protein 1; NSCLC = Non-small cell lung cancer; ORR = objective response rate; DCR = disease control rate; ICI = immune-checkpoint inhibitor; CTLA-4 = cytotoxic T-lymphocyte-associated protein 4; TIGIT = T cell immunoreceptor with Ig and immunoreceptor tyrosine-based inhibitory motif (ITIM) domains; TEAE = treatment emergent adverse event; irAE = immune-related adverse event; Q3W = every three weeks; CR = complete response; PR = partial response; SD = stable disease; PD = progressive disease; Tx = treatment.

ASCO 2023: First Clinical Data for BNT323/DB-1303[1] Demonstrated Anti-Tumor Activity in Heavily Pretreated HER2-Expressing Patients

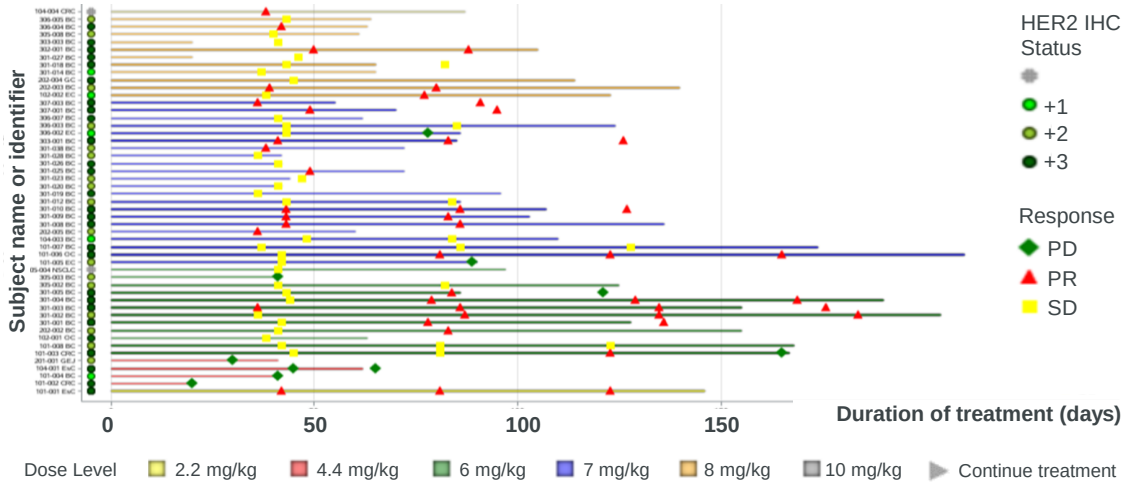
Phase 1/2a study design (NCT05150691), multicenter, non-randomized, open-label, multiple-dose, FIH study

Moore K. et al. Presented at ASCO 2023. Abstract #3023.

Anti-tumor activity in heavily pretreated HER2-expressing patients:

	ORR, %	DCR, %
All patients (n=52)	44.2	88.5
HER2+ breast cancer (n=26)	50	96.2
HER2 low breast cancer (n=13)	38.5	84.6

Response over time in patients treated with different dose levels and HER2 IHC status:



BNT323/DB-1303 was well tolerated and all adverse events were manageable

Summary of overall safety:

	2.2 mg/kg (n = 1)	4.4 mg/kg (n = 5)	6.0 mg/kg (n = 15)	7.0 mg/kg (n = 29)	8.0 mg/kg (n = 32)	10.0 mg/kg (n = 3)	Total (n = 85)
Any TEAEs	1 (100.0%)	5 (100.0%)	14 (93.3%)	26 (89.7%)	26 (81.2%)	2 (66.7%)	74 (87.1%)
Any TRAEs	1 (100.0%)	3 (60.0%)	12 (80.0%)	26 (89.7%)	25 (78.1%)	2 (66.7%)	69 (81.2%)
TRAEs: Gr. ≥3	0	1 (20.0%)	2 (13.3%)	6 (20.7%)	1 (3.1%)	1 (33.3%)	11 (12.9%)

Key takeaways:

- BNT323/DB-1303 was well tolerated with no DLT and no TEAEs associated with death
- Preliminary antitumor activity was observed in heavily pretreated HER2-expressing patients with a median of 7 prior systemic treatment lines, including other HER2 ADCs

Expansion is ongoing in selected tumor patients treated at the RP2D

1. Partnered with DualityBio.

HER2 = human epidermal growth factor receptor 2; FIH = first in human; ADC = antibody drug conjugate; IHC = immune histo chemistry test; PD = progressive disease; PR = partial response; SD = stable disease; TEAE = treatment emergent adverse event; AE = adverse event; DLT = dose limiting toxocities.

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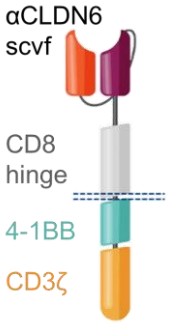
ASCO 2023: BNT211 – A First-in-Class Approach for CLDN6+ Solid Tumors

Second generation CAR targeting CLDN6

CLDN6 CAR T ± CLDN6 CARVac



- Highly sensitive and specific 2nd generation CAR against CLDN6
- CLDN6 is absent from healthy adult tissue, but expressed in a variety of cancers[1]

- Clinically proven RNA-lipoplex vaccine for body-wide delivery of antigens to dendritic cells[1,2]
- Amplification and persistence of CAR-T cells by repeat administration of CARVac[3]

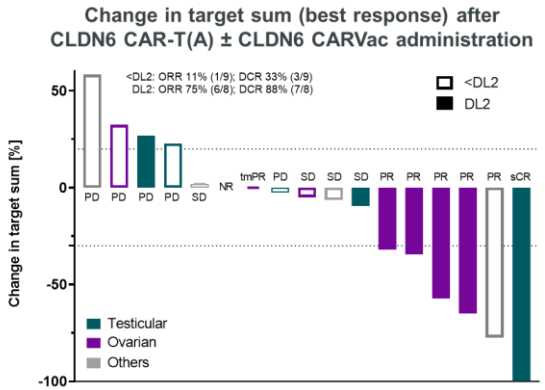
BNT211 in multiple solid tumors

Mackensen A et al. Presented at ASCO 2023. Abstract #2518.

Aim of the current analysis:

Determine the safety and preliminary efficacy of the **automated** BNT211 product

Clinical activity (n=17):



ORR all pts: 41%
ORR DL2: 75%

Safety and Efficacy:

CLDN6 CAR-T (A) cells ± CLDN6 CARVac has a moderate safety profile in line with that of manually produced CLDN6 CAR-T cells

Encouraging signs of activity, with dose-dependent expansion of CAR-T cells translating into ORR of 41% with 7 responders in 17 evaluable patients

Follow-up on treated patients and further recruitment to DL2 and DL3 is ongoing, data update in 2H 2023
After determination of RP2D, a pivotal trial in germ cell tumors is planned to be initiated (PRIME designation) in 2024

1. Kranz LM, et al. Nature 2016; 534:396–401; 2. ŞahinU, et al. Nature 2020; 585:107–112; 3.Reinhard K, et al. Science 2020; 367:446–453.
CLDN6 = Claudin 6; CAR = chimeric antigen receptor; scvf = single-chain variable fragment; CD = cluster of differentiation; ORR = objective response rate; pts = patients; DL = dose level; DLT = dose limiting toxicities; RP2D = recommended phase 2 dose; PRIME = PRIority MEdicines.

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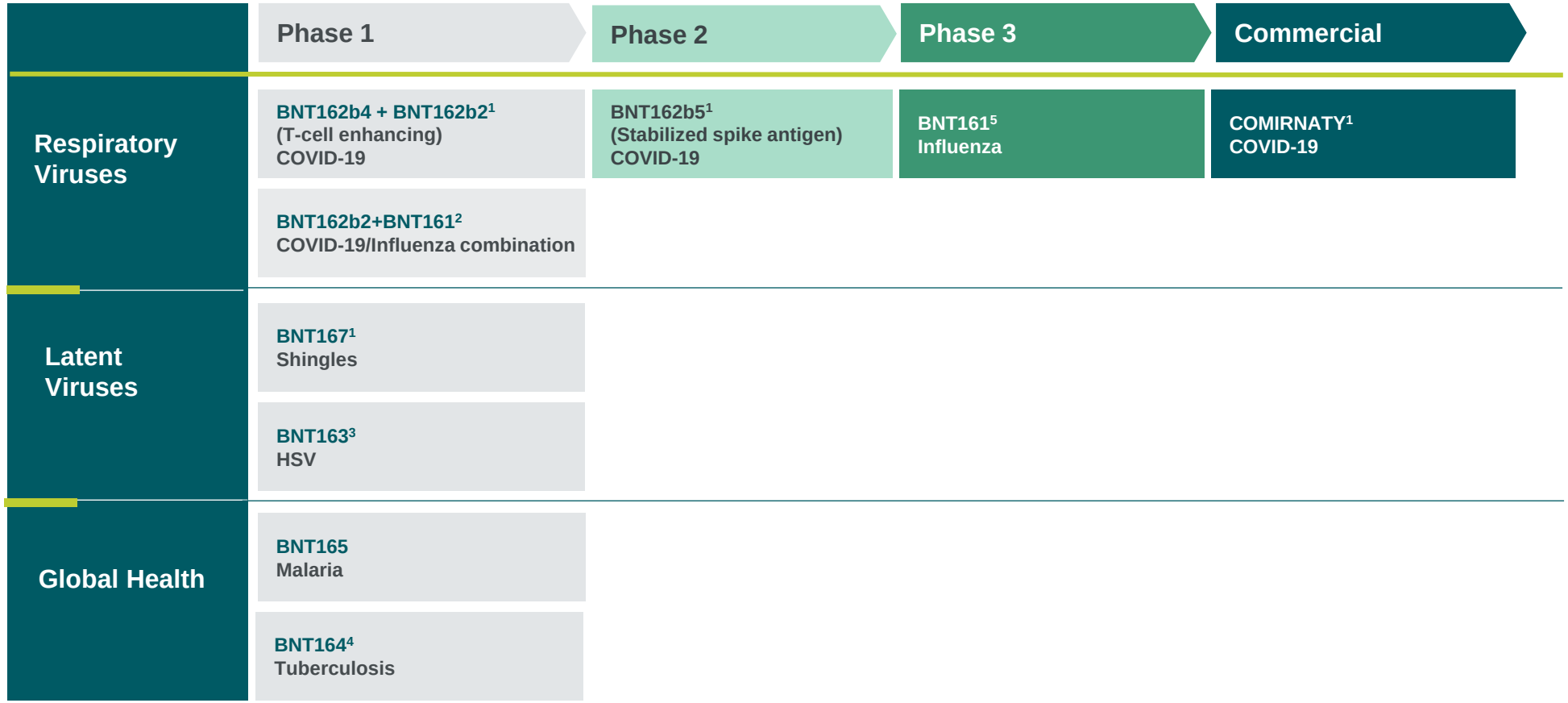
Broad Infectious Disease Pipeline Built on Versatile mRNA Technology



1. Partnered with Pfizer; 2. Collaboration with Pfizer 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.
Please find current product information for Comirnaty at https://www.ema.europa.eu/en/documents/product-information/comirnaty-epar-product-information_en.pdf and https://www.fda.gov/media/151707/download.

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Advancing Broader Infectious Disease Vaccine Portfolio

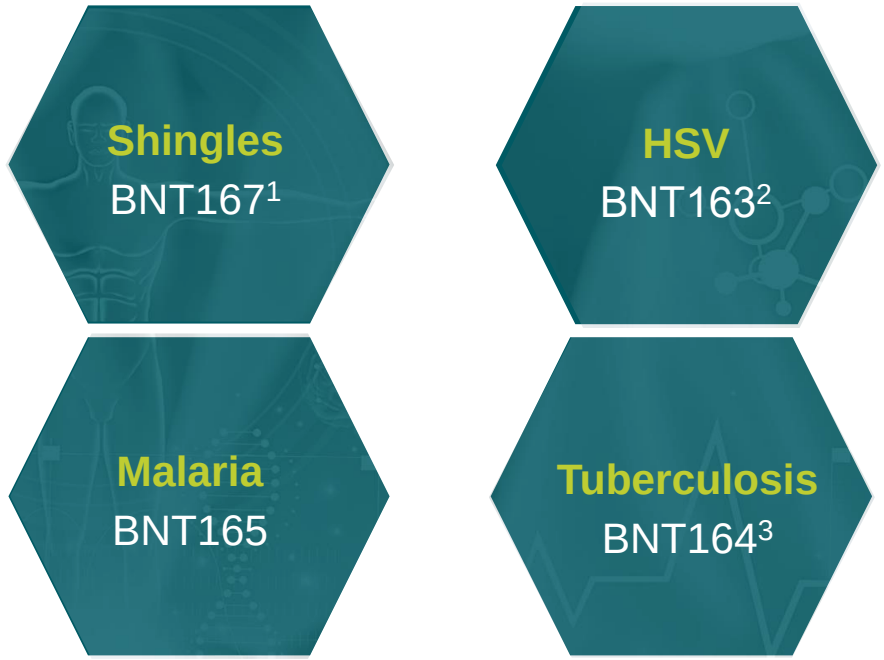
Advanced 2 additional clinical stage mRNA vaccine programs partnered with Pfizer and multiple wholly owned infectious disease vaccines

Focused on prophylactic vaccines against diseases of high global incidence and that cause significant mortality and/or morbidity

Targeting diseases with no marketed vaccine or room for differentiation over existing vaccines

Multiple additional trial starts expected in the next 12 months

Clinical Infectious Diseases Programs



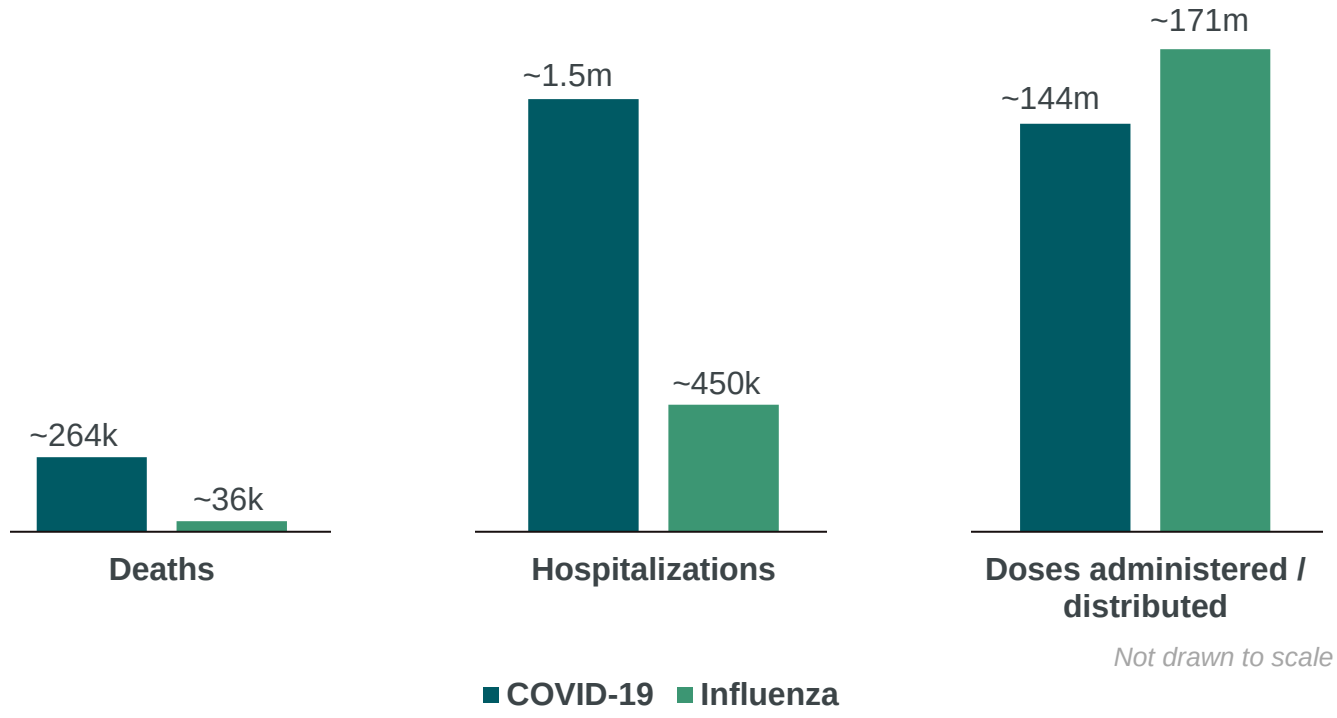
1. Partnered with Pfizer, 2. Collaboration with University of Pennsylvania, 3. Collaboration with Bill & Melinda Gates Foundation
HSV = Herpes Simplex Virus

COVID-19 Disease Burden: A Critical Respiratory Disease

COVID-19 remains a leading cause of mortality, hospitalization and long-term complications

- A leading cause of death worldwide, estimated to exceed 6.8 million deaths[1]
- A leading cause of respiratory disease hospitalization in the United States[2]
- Evidence suggests that patients with the SARS-CoV-2 Omicron variant had a higher risk of in-hospital mortality than those with influenza[3]
- Estimated to be >65 million long COVID sufferers worldwide (more than 10% of COVID survivors)[4,5]

Death, hospitalizations and administered/distributed vaccine doses in the U.S.: COVID-19 vs. Influenza in 2022[6-8]



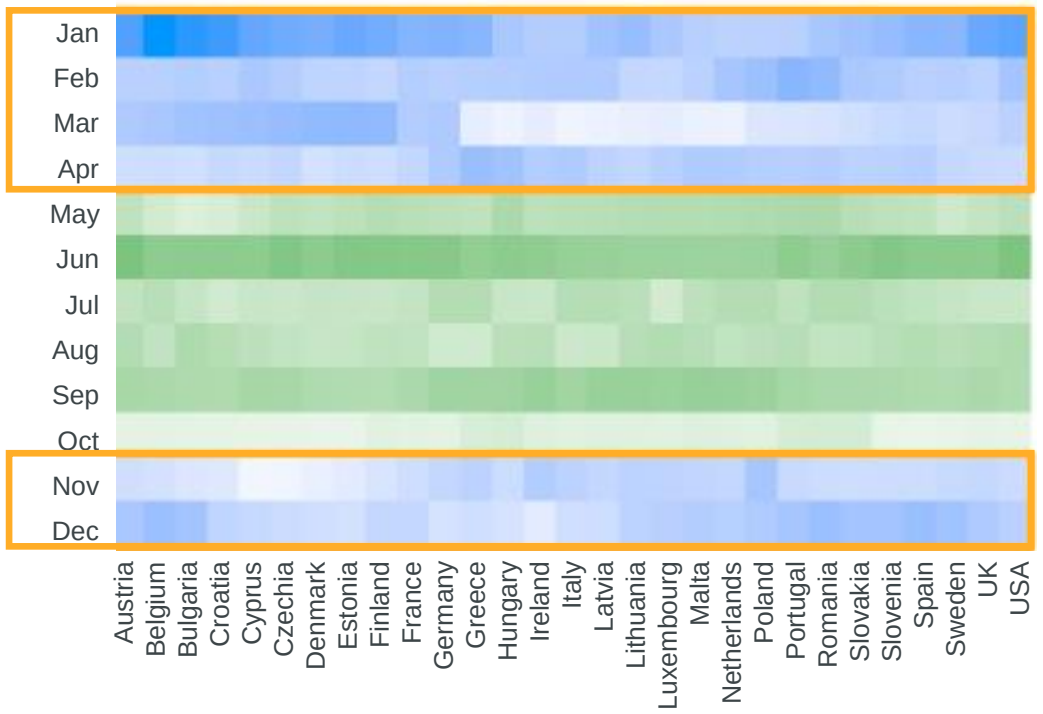
1. WHO Coronavirus (COVID-19) Dashboard; 2. Since October 2022; https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html; 3. Portmann et al. Jama Netw Open. 2023;6(2):e2255599; 4. Huerne K et al. Am J Med Open. 2023; 5. Davis H et al. Nature Reviews Microbiology. 2023; 6. https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm; 7. https://www.cdc.gov/flu/fluvaxview/dashboard/vaccination-doses-distributed.html; 8. https://gis.cdc.gov/grasp/covidnet/covid19_5.html.

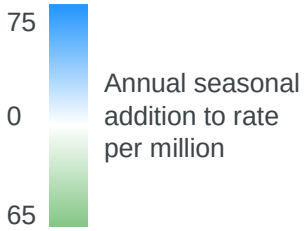
SARS-CoV-2: Activity Expected to Increase Again this Fall/Winter; Expected to Become a Seasonal Disease

Disease activity has peaked between November and April[1]

Similar patterns seen for influenza, RSV, and other respiratory viruses[2]

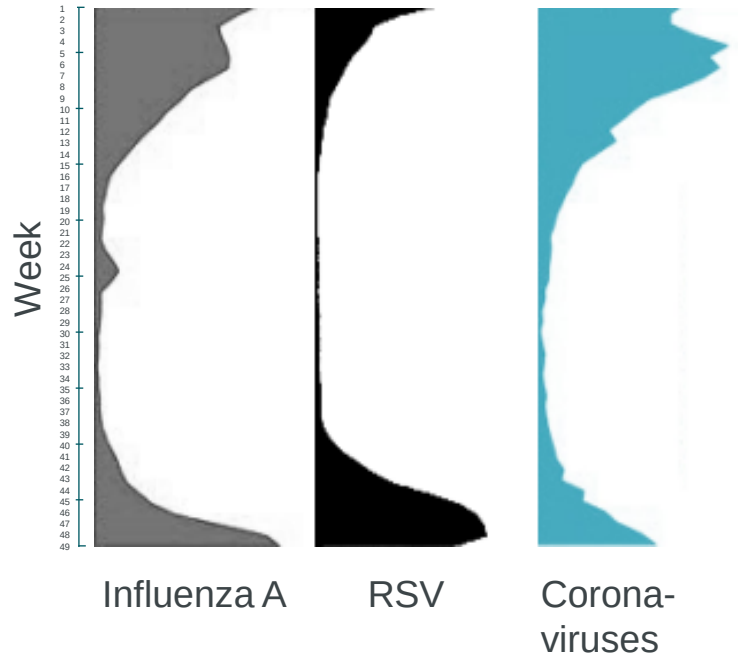
Heatmap of monthly COVID-19-related hospitalizations per million population, Northern hemisphere, Mar 2020 – Dec 2022[1]





Weekly Seasonality of Confirmed Viral Infections

England and Wales, 1989 – 2019[2]



1 Wiemken et al. Sci Rep. 2023 Mar 8;13(1):3886. doi: 10.1038/s41598-023-31057-1
2 Nichols et al. BMC Infect Dis. 2021 Oct 26;21(1):1101. doi: 10.1186/s12879-021-06785-2

RSV = respiratory syncytial virus;

Better-Matched Vaccines are Required to Improve Protection Against Severe COVID-19

- XBB sublineages are dominant globally and antigenically distant from prior Omicron strains[1,2]
- Current bivalent vaccines maintain effectiveness[3-11] but show signs of waning, including against severe COVID-19[3,9-11]
- Immunity likely to be further reduced by the fall
- COVID-19 vaccines better matched to currently circulating sublineages could improve protection[3]

Absolute vaccine effectiveness against hospitalization[11]

Immunocompetent adults, VISION Network, Sep 2022 – Apr 2023, U.S. CDC

Age 18–64y‡

Time Since Vaccination	Adjusted VE, % (95% CI)
Monovalent only, ≥7 days*	17 (7–26)
Bivalent booster, 7–59 days	61 (44–72)
Bivalent booster, 60–119 days	25 (1–43)
Bivalent booster, 120–179 days	16 (-24–43)†

* Median (IQR) time since last dose: 403 (306-534) days
† These estimates are imprecise and should be interpreted with caution
‡ Individuals received COVID-19 vaccines from Pfizer/BioNTech, Moderna, Janssen or Novavax

Age ≥65y‡

Time Since Vaccination	Adjusted VE, % (95% CI)
Monovalent only, ≥7 days*	24 (18–29)
Bivalent booster, 7–59 days	64 (58–68)
Bivalent booster, 60–119 days	51 (45–57)
Bivalent booster, 120–179 days	27 (15–37)

* Median (IQR) time since last dose: 362 (245-484) days
‡ Individuals received COVID-19 vaccines from Pfizer/BioNTech, Moderna, Janssen or Novavax

1. World Health Organization. Weekly epidemiological update on COVID-19 – April 2023. Available at: Weekly epidemiological update on COVID-19 – April 2023 (who.int)
2. covSPECTRUM dashboard. Available at: https://cov-spectrum.org/explore/World/AllSamples/Past6M
3. Lin et al. N Engl J Med. 2023 Feb 23;388(8):764-766. DOI: 10.1056/NEJMc2215471
4. Link-Geles et al. MMWR Morb Mortal Widy Rep 2023;72:119–124. doi: 10.15585/mmwr.mm7205e1
5. Surie et al. MMWR Morb Mortal Wkly Rep 2022;71:1625–1630. DOI: 10.15585/mmwr.mm715151e2
6. Tenforde et al. MMWR Morb Mortal Wkly Rep 2023;71:1637–1646. DOI: 10.15585/mmwr.mm7153a1
7. Fabiani et al. Euro Surveil. 2023 Feb;28(8):2300105. doi: 10.2807/1560-7917.ES.2023.28.8.2300105
8. Tartof et al. Unpublished analysis, under review.
9. Poukka et al. medRxiv 2023. DOI:10.1101/2023.03.02.23286561
10. Link-Gelles R. CDC. Data presentedat the ACIP meeting (April 19, 2023). Available at: ACIP meeting (CDC.gov)
11. Link-Gelles R. MMWR Morb Mortal Wkly Rep 2023;72:579–588. DOI: http://dx.doi.org/10.15585/mmwr.mm7221a3

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Readiness to Supply Omicron XBB.1.5-Adapted Monovalent COVID-19 Vaccine Booster

Completed key regulatory submissions

Submissions:

USA, EU, Australia, Canada, Japan, New Zealand, South Korea, Switzerland

Plan to launch in > 40 countries worldwide

Vaccine distribution can begin immediately upon regulatory approval

Expected launch:

September 2023

Positioned to maintain leadership in major markets

Major contract serving the EU market

Leveraging partner commercial launch experience in the U.S.

Approved in the U.S., EU, UK and Japan.

COVID-19 Market Outlook

2023/2024 COVID-19 Season

Recommended strain by FDA: XBB.1.5

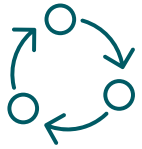
Now approved in the U.S., EU, UK and Japan*

U.S. commercial market opening expected in 2H 2023 in conjunction with launch of variant-adapted vaccine

Successfully **renegotiated EC supply agreement**

Scalable, flexible manufacturing and supply chain readiness

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

* Pending additional approvals in other geographies; EC: European Commission.
Pease find current product information for Comirnaty at https://www.ema.europa.eu/en/documents/product-information/comirnaty-epar-product-information_en.pdf and https://www.fda.gov/media/151707/download.

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2023 Financial Year Guidance Updated[1]

			Updated Guidance
COVID-19 vaccine revenues for FY 2023	Estimated BioNTech COVID-19 vaccine revenues	~ €5 bn	**~ €5 bn**
Planned FY 2023 expenses and capex	R&D expenses[2]	€2,400 – 2,600 m	**€2,000 – 2,200 m**
	SG&A expenses	€650 – 750 m	**€600 – 700 m**
	Capital expenditure for operating activities[3]	€500 – 600 m	**€350 – 450 m**
Estimated FY 2023 tax assumptions	BioNTech Group estimated annual cash effective income tax rate[4]	~ 27%	**~ 21%**

[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.

[4] Numbers exclude potential effects caused by or driven from share-based payment settlements in the course of 2023.

Selected Pipeline Milestones Expected in 2023 and Beyond

Modality	Indication	Program	Select Milestones	Anticipated Timing	
mRNA vaccines for infectious disease	COVID-19 – influenza Combination[1,2]	BNT162b2 + BNT161	Trial update	**2023**	
	Malaria	BNT165	Phase 1 data update	**2H 2023**	
	HSV[3]	BNT163	Phase 1 data update	**2H 2023**	
	Shingles[1]	BNT167	Trial update	**2024**	
	Tuberculosis[4]	BNT164	Phase 1 FPD	**2023**	✓
iNeST individualized mRNA vaccines	1L Melanoma	BNT122/Autogene Cevumeran	Phase 2 data update	**2023**	
	Adjuvant CRC[5]	BNT122/Autogene Cevumeran	Phase 2 data update	-	
	Adjuvant PDAC[5]	BNT122/Autogene Cevumeran	Phase 2 FPD	**2H 2023**	
FixVac	1L NSCLC[6]	BNT116	Phase 2 FPD	**2H 2023**	✓
Protein-based therapeutics	Multiple solid tumors[7]	BNT311/GEN-1046	Expansion cohort data update	**2023**	
	Multiple solid tumors[7]	BNT312/GEN-1042	Expansion cohort data update	**2023**	
	aPD(L)1-R/R NSCLC[8]	BNT316/ONC-392 (gotistobart)	Phase 3 FPD	**2023**	✓
	Multiple solid tumors[9]	BNT323/DB-1311	Phase 1/2 data update	**2H 2023**	
	Multiple solid tumors[9]	BNT324/DB-1303	Phase 1/2 FPD	**2H 2023**	
Cell therapies	CLDN6+ solid tumors	BNT211	Phase 1 data update	**2H 2023**	
	2L+ testicular cancer	BNT211	Phase 2 FPD	**2024**	

1. Partnered with Pfizer; 2. Collaboration with Pfizer and subject to reaching agreement with our partners; 3. Partnered with University of Pennsylvania; 4. Collaboration with Bill & Melinda Gates Foundation; 5. Partnered with Genentech, a member of Roche Group; 6. Partnered with Regeneron; 7. Collaboration with Genmab; 8. Collaboration with OncoC4; 9. Partnered with Duality Bio.
FPD = First Patient Dosed, CRC = Colorectal cancer, PDAC = Pancreatic ductal adenocarcinoma, HSV = Herpes simplex virus, NSCLC = Non-small cell lung cancer, CLDN6 = Claudin 6, 1L = first line, 2L = second line.

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Thank you

Contact: Investors@biontech.de