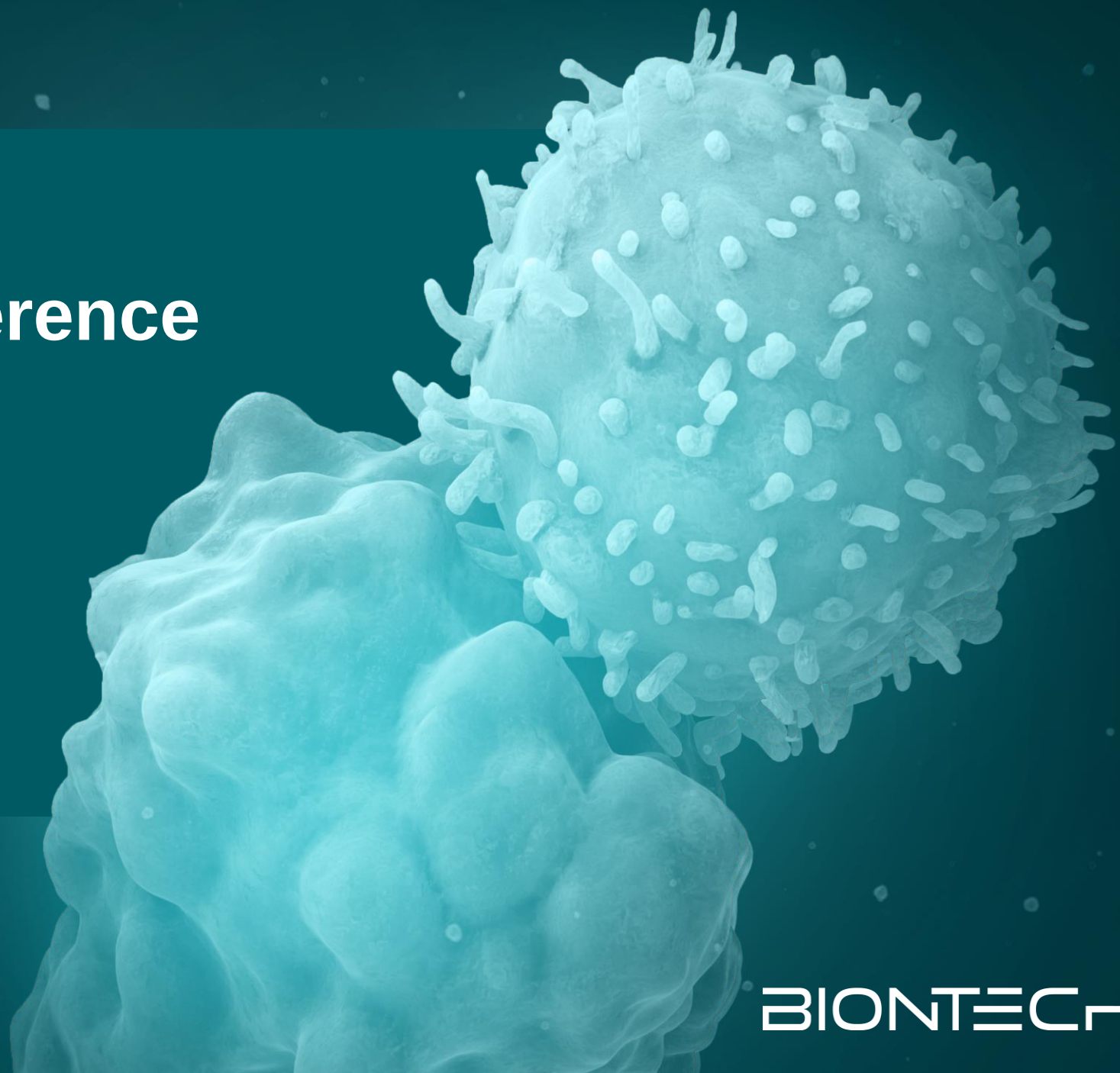
42nd J.P. Morgan Healthcare Conference

Prof. Ugur Sahin, M.D.
CEO & Co-founder

9 January 2024
9:00 – 9:40 AM PST



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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: planned next steps in BioNTech's pipeline programs, including, but not limited to, statements regarding timing or plans for initiation of clinical trials, enrollment or submission for, and receipt of product approvals with respect to BioNTech's product candidates; BioNTech's estimates of certain financial information, including financial guidance for full year 2024 revenue, which includes expected revenues 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 registrational potential of any trials BioNTech may initiate; the initiation, timing, progress, results, and cost of BioNTech's research and development programs, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the availability of results, and characterization and timing of clinical data; BioNTech's targeted timing for a potential oncology product launch, subject to approval, including expectations regarding the timing of commercial readiness activities; the potential safety and efficacy of BioNTech's product candidates; BioNTech's expectations with respect to its intellectual property; and BioNTech's ongoing relationships with Pfizer, Inc.; Duality Biologics (Suzhou) Co. Ltd.; OncoC4, Inc.; Biotheus Inc.; Genmab S/A; Genentech Inc., a member of the Roche Group; and others. 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: the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as risks associated with preclinical and clinical data, including the data discussed in this release, and including the possibility of unfavorable new preclinical, clinical or safety data and further analyses of existing preclinical, clinical or safety data; the nature of the clinical data, which is subject to ongoing peer review, regulatory review and market interpretation; discussions with regulatory agencies regarding timing and requirements for additional clinical trials; the ability to produce comparable clinical results in future clinical trials; the timing of and BioNTech's ability to obtain and maintain regulatory approval for BioNTech's product candidates; the ability of BioNTech's mRNA technology to demonstrate clinical efficacy outside of BioNTech's infectious disease platform; 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 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; unforeseen safety issues and potential claims that are alleged to arise 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 September 30, 2023 and in subsequent filings made by BioNTech with the SEC, which are available on the SEC's website at 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.

Furthermore, certain statements contained in this presentation relate to or are based on studies, publications, surveys and other data obtained from third-party sources and BioNTech's own internal estimates and research. While BioNTech believes these third-party sources to be reliable as of the date of this presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. In addition, any market data included in this presentation involves assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. While BioNTech believes its own internal research is reliable, such research has not been verified by any independent source. In addition, BioNTech is the owner of various trademarks, trade names and service marks that may appear in this presentation. Certain other trademarks, trade names and service marks appearing in this presentation are the property of third parties. Solely for convenience, the trademarks and trade names in this presentation may be referred to without the ® and TM symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Our Vision: Harnessing the Power of the Immune System to Fight Human Disease

Elevating success beyond our historical achievement

Sustainable respiratory vaccine business

Innovative precision medicine pipeline targeting multiple product approvals in the coming years

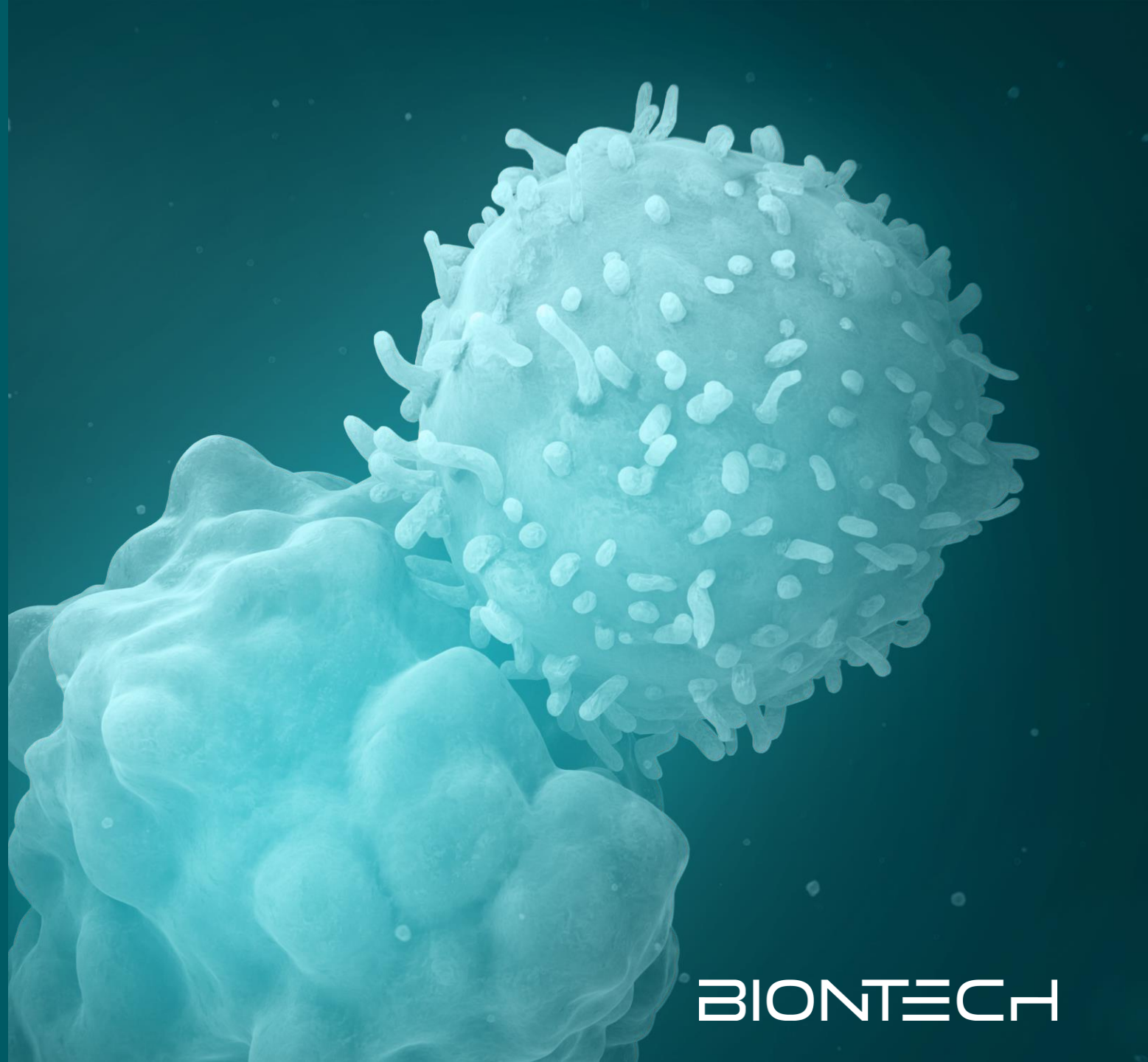
Multi-product immunotherapy pioneer addressing medical need worldwide

BioNTech's key objectives for the next phase

Powered by breakthrough science, disruptive technologies & AI

AI = artificial intelligence.

Execution in 2023



Building and Expanding a Long-term and Successful COVID-19 Franchise[1]

Franchise highlights

First approved mRNA vaccine

>4.5 billion doses shipped to >180 countries and territories[2]

Millions of deaths averted[3]

2023 accomplishments

>400 million total vaccine doses distributed in 2023[4]

>190 million XBB.1.5-adapted monovalent vaccine doses distributed in 2023[5]

Introduced single-dose vials and never-frozen prefilled syringes in the U.S.

Maintained market leadership in the U.S. (54%), EU (90%), and Japan (85%)[6]

1. Partnered with Pfizer, 2. Cumulative doses shipped in the years 2021-2023; 3. COVID-19 Excess Mortality Collaborators: Lancet. 2022. 4. January to December 3, 2023. 5. September to December, as of January 8, 2024. 6. Company assessment as of December 3, 2023.

Developing an Innovative Pipeline Focused on Oncology and Infectious Disease

BioNTech's pipeline		Clinical and scientific execution in 2023			
Oncology	**20** clinical stage programs	Growing clinical stage pipeline	**11** Phase 2 & 3 trials ongoing	**7** clinical trials started	**6** clinical assets in-licensed
Infectious Disease	**7** clinical stage programs	**3** first-in-human trials started	**Shingles**[1]	**Tuberculosis**[2]	**Mpox**[3]

Rigorous pipeline prioritization guided by clinical data and medical need

1. Partnered with Pfizer; 2. In collaboration with Bill & Melinda Gates Foundation; 3. Partnered with the Coalition for Epidemic Preparedness Innovations (CEPI).

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Progressing Innovation to Address a Broad Range of Unmet Needs

Ongoing mid- & late stage trials	
NSCLC	BNT316/ONC-392 (gotistobart)[1]
Endometrial cancer	BNT323/DB-1303[2]
Breast cancer	BNT323/DB-1303[2]
PDAC	autogene cevumeran/BNT122[3]
CRC	autogene cevumeran/BNT122[3]
HPV+ HNSCC	BNT113

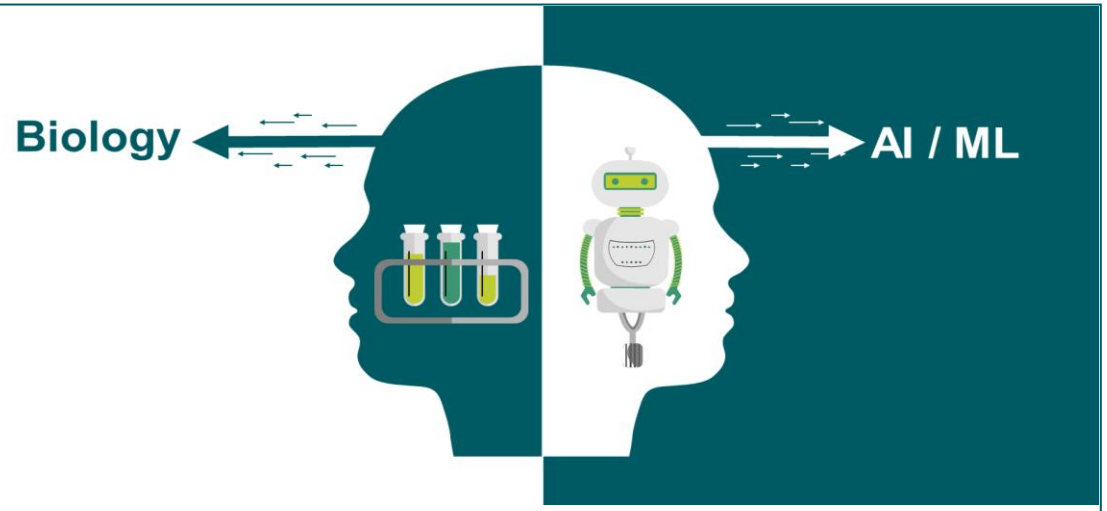
Additional product candidates advancing to late-stage development

Plan to have **10+** potentially registrational trials in 2024 and beyond

1. Partnered with OncoC4; 2. Partnered with DualityBio; 3. Partnered with Genentech, member of Roche Group.
NSCLC = non-small cell lung cancer; HPV = human papillomavirus; PDAC = pancreatic ductal adenocarcinoma; CRC = colorectal cancer, HNSCC = head and neck squamous cell carcinoma.

Building a Leading Biotechnology and AI Company at Scale

- **AI drug design** to develop next-generation products with a more efficacious or safer profile
- **Speed up workflows** to develop novel therapeutic & vaccine product candidates
- **Capability scale up** with fully digitalized automation throughout the whole drug discovery and development process



Capabilities to leverage the power of computational medicine & AI

300+ AI Experts

AI researchers, ML engineers and ML Operations experts

Supercomputing Assets & Quantum Machine Learning

Fully managed 500 Petaflop High Performance GPU Cluster in UK*[2].
Quantum computing R&D with multiple academic & commercial partnerships

Frontier RL & LLMs

Reinforcement learning & large language models
Supporting R&D efforts and biology-focused generative AI.

Simulation Expertise

Physically realistic representations of complex environments, optimized for speed.

AI = artificial intelligence; ML = machine learning; GPU = Graphics Processing Unit; RL = reinforcement learning; LLM = large language models.

Corporate Execution in 2023

Building a multi-product, AI-powered, patient-centric company embedded in the biotech ecosystem

Grew team and expanded global presence on 5 continents

>1,600 new employees joined in 2023

Acquired InstaDeep and in-licensed 6 new clinical stage candidates

InstaDeep™

OncoC4 DualityBio MediLink Therapeutics BIOTHEUS

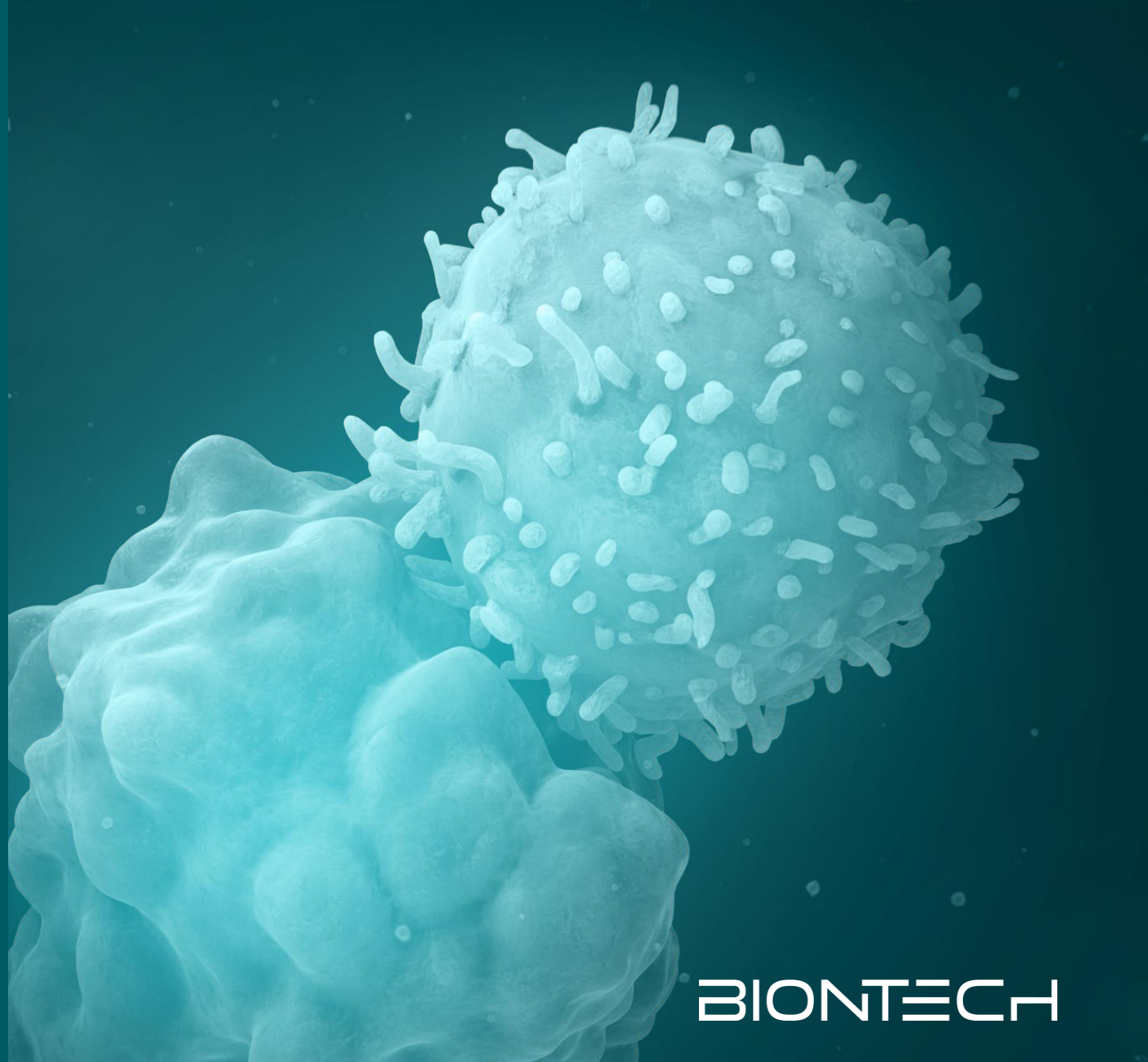
Strengthened balance sheet with strong financial performance*

* As of Dec. 31, 2023

~€ 17.5 bn Total cash plus security investments[1]

1. Preliminary, unaudited figure; consists of cash, cash equivalents and security investments, as of **December 31, 2023**.

Infectious Disease Overview



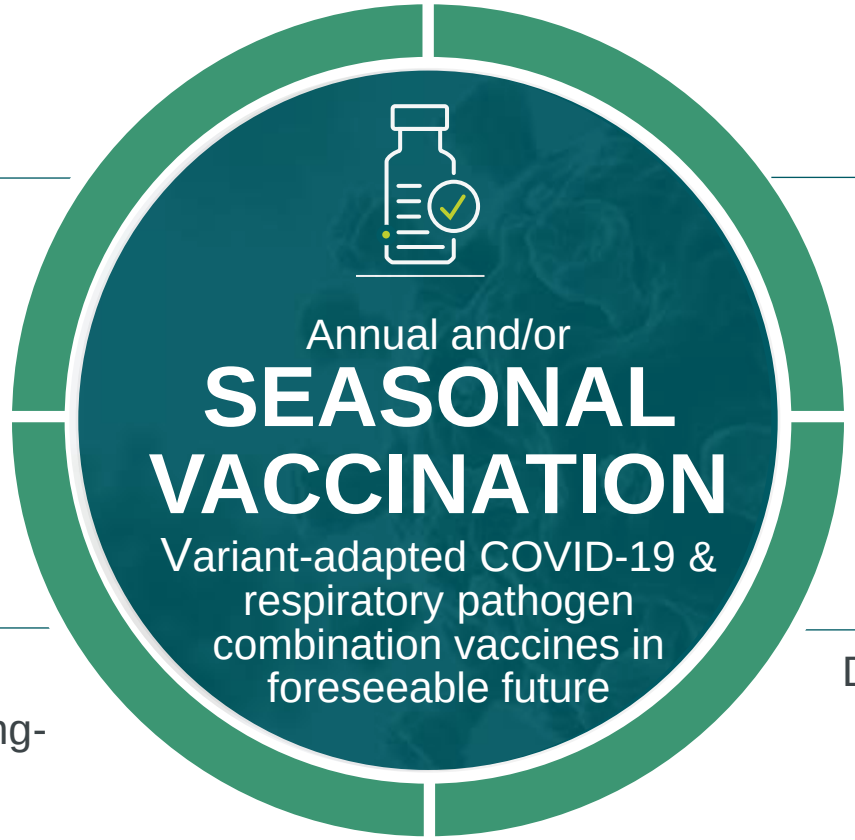
Long-Term Need for Annually Adapted Vaccines Anticipated

Continuous evolution

Ongoing antigenic evolution of SARS-CoV-2[1,2]

Risk remains high

For severe COVID-19 in vulnerable populations[3]



Long-term health consequences

Accumulating evidence demonstrates that COVID-19 vaccination reduces long-COVID[4]

Variant-adapted vaccines

Designed to be effective against multiple variants of concern[5]

Combination vaccines have the potential to provide optimized protection against multiple pathogens in at-risk population

1. World Health Organization Tracking SARS-CoV-2 variant www.who.int/en/activities/tracking-SARS-CoV-2-variants accessed 30 October 2023; 2. Global Initiative on Sharing All Influenza Data https://gisaid.org/ accessed 30 October 2023; 3. FDA Briefing Document Vaccines and Related Biological Products Advisory Committee Meeting June 15, 2023; 4. Brannock et al. Nature Comm. 2023; 5. Stankov M. V. et al. medRxiv pre-print. 2023.

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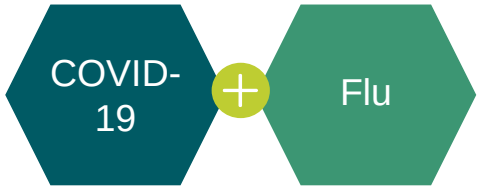
Seasonal Covid-Flu Combination Vaccine Could Address Dual Disease Burden In Overlapping Populations

Collaborative work with Pfizer to develop combination vaccines for various respiratory diseases*

mRNA technology is optimally suited for combinations vaccines

- Intrinsic adjuvanticity and generation of **high & robust antigen-specific adaptive immune responses**[1-3]
- **Induction of neutralizing antibodies and T-cell responses**[4,5]
- **Easily adaptable** and **rapid production time**[6-9]
- Effective **multi-antigen targeting**[10]

Phase 3



Target population:

Healthy individuals 18-64 years old

Trial design:

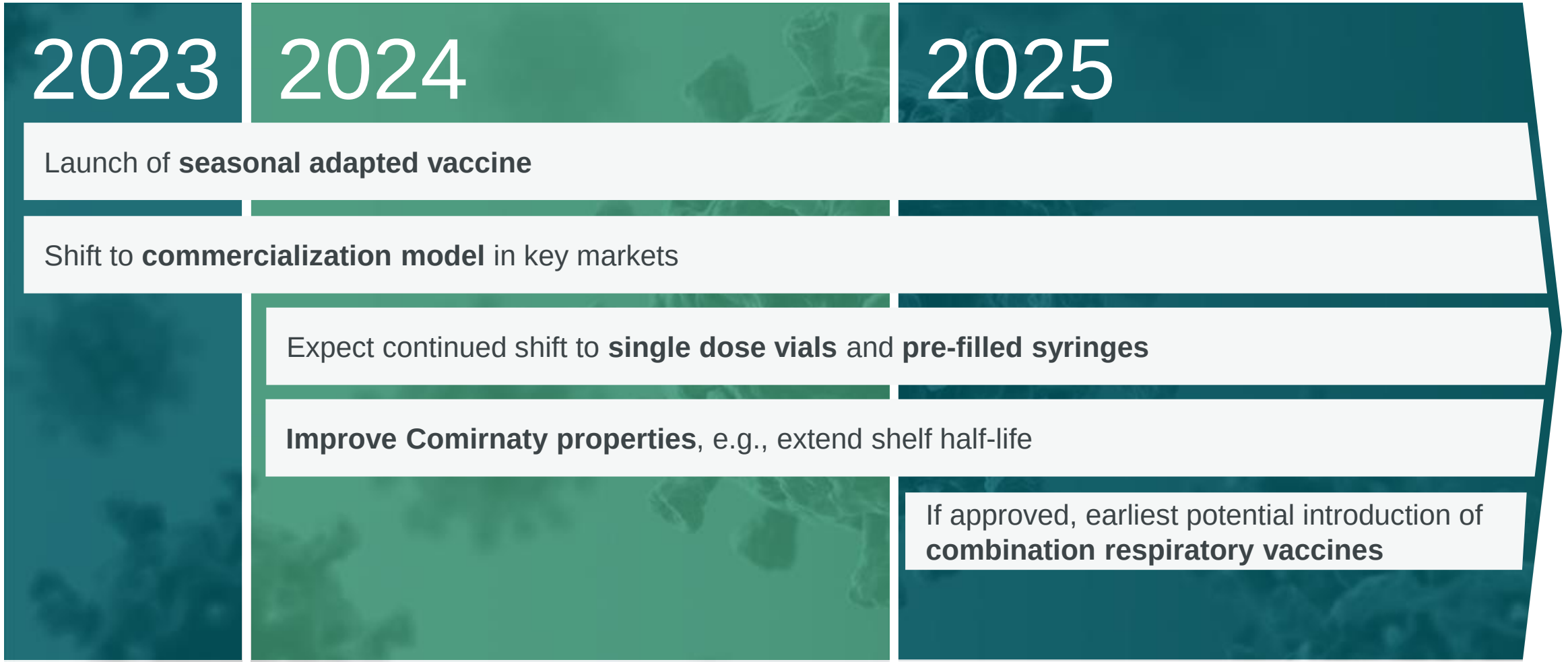
Single-dose mRNA influenza and COVID-19 vaccine candidates vs. SoC influenza and COVID-19 vaccines

Primary endpoints:

Safety, tolerability and immunogenicity

1. Investigator's Brochure Version 5.0. BNT162/PF-07302048. Available at: https://www.tga.gov.au/sites/default/files/foi-2183-09.pdf; 2. Kirchdoerfer R, et al. Nature. 2016; 3. Verbeke R, et al. J Control Release 2021; 4. Vogel AB, et al. Nature. 2021; 5. Sahin U, et al. Nature. 2021; 6. Chaudhary N, et al. Nat Rev Drug Discov. 2021; 7. Vogel AB, et al. Nature. 2021; 8. Pfizer. Press release. Available at: https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-provide-update-omicron-variant; 9. Lewis LM, et al. J Pharm Sci. 2023; 10. Financial Times. Available at: https://www.ft.com/content/26f396c2-3dfd-4b57-8fe7-aa6784a2abd9.
*The activities relate to the development of respiratory combination vaccine candidates utilizing the companies' COVID-19 vaccine in various combinations with further approved and investigational respiratory vaccines.

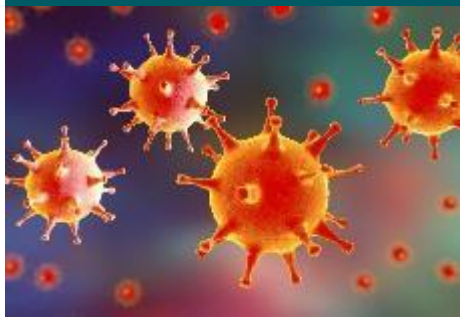
COVID-19 Franchise[1]: Adaptable Approach in the Face of Dynamic Virus Evolution for Continued Success



1. Partnered with Pfizer.

Infectious Diseases: Important Growth Area Addressing High Medical and Global Health Need[1]

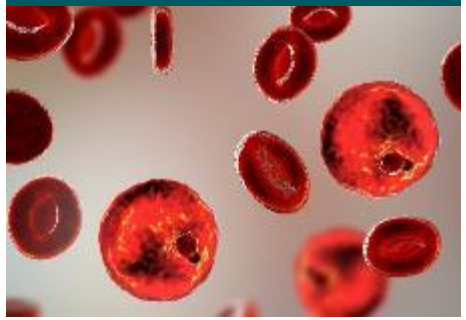
HSV



3.7 billion people under age 50 globally infected with HSV-2

~491 million people aged 15-49 infected with HSV-1 worldwide

Malaria



~249 million cases in 2022

608,000 deaths in 2022 in 85 countries

Children under 5 accounted for 80% of all malaria deaths

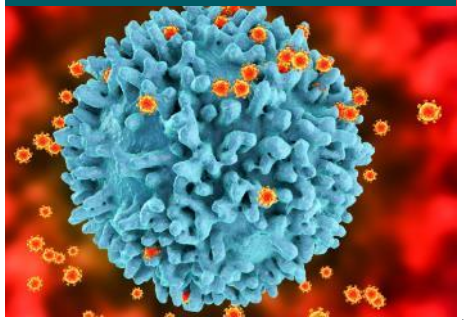
Tuberculosis

10.6 million cases globally in 2022

1.3 million deaths globally in 2022

2nd leading infectious killer after COVID-19

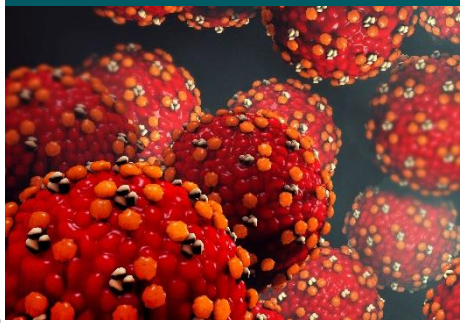
Mpox



91,000 cases during 22/23 outbreak[2]

WHO warning about risk of international spread of current **outbreak in DRC**

Shingles



Individuals who live to 85 years old have **~50% risk** of developing shingles[3]

Incidence and severity of shingles **rise with age**, with a marked increase after age 50[4]

Additional preclinical programs to start clinical trials in 2024 / 2025

1. All figures are from World Health Organization fact sheets unless otherwise referenced https://www.who.int/news-room/fact-sheets (accessed January 04 2024); 2. WHO 2022-23 Mpox outbreak: global trends. 2023. accessed October 19, 2023 . https://worldhealthorg.shinyapps.io/mpx_global 3. Pan CX, et al. Ther Adv Vaccines Immunother. 2022; 4. Piot P. et al. Nature. 2019.
WHO = World Health Organization; HSV = Herpes Simplex Virus; DRC = Democratic Republic of the Congo.

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Healthcare and Social Responsibility

Contributing to democratizing access to novel medicines around the globe

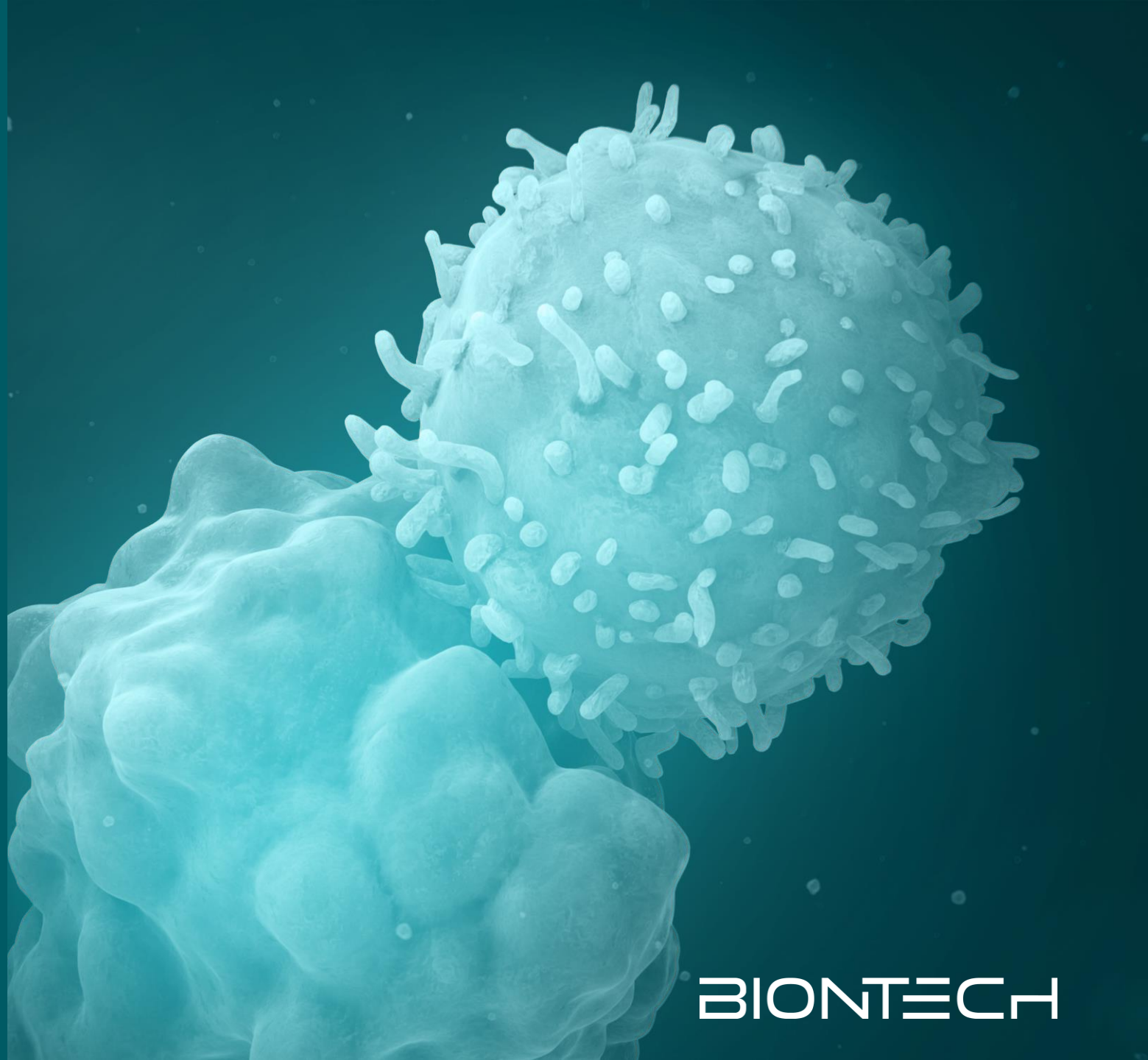
Inaugurated manufacturing facility in Kigali, Rwanda in December 2023, which could become the first commercial-scale mRNA manufacturing facility in Africa

Advanced mRNA-based vaccine candidates into the clinic to address global health threats[1]

35% of doses of COVID-19 vaccine delivered to low- and middle-income countries in 2023[2,3]

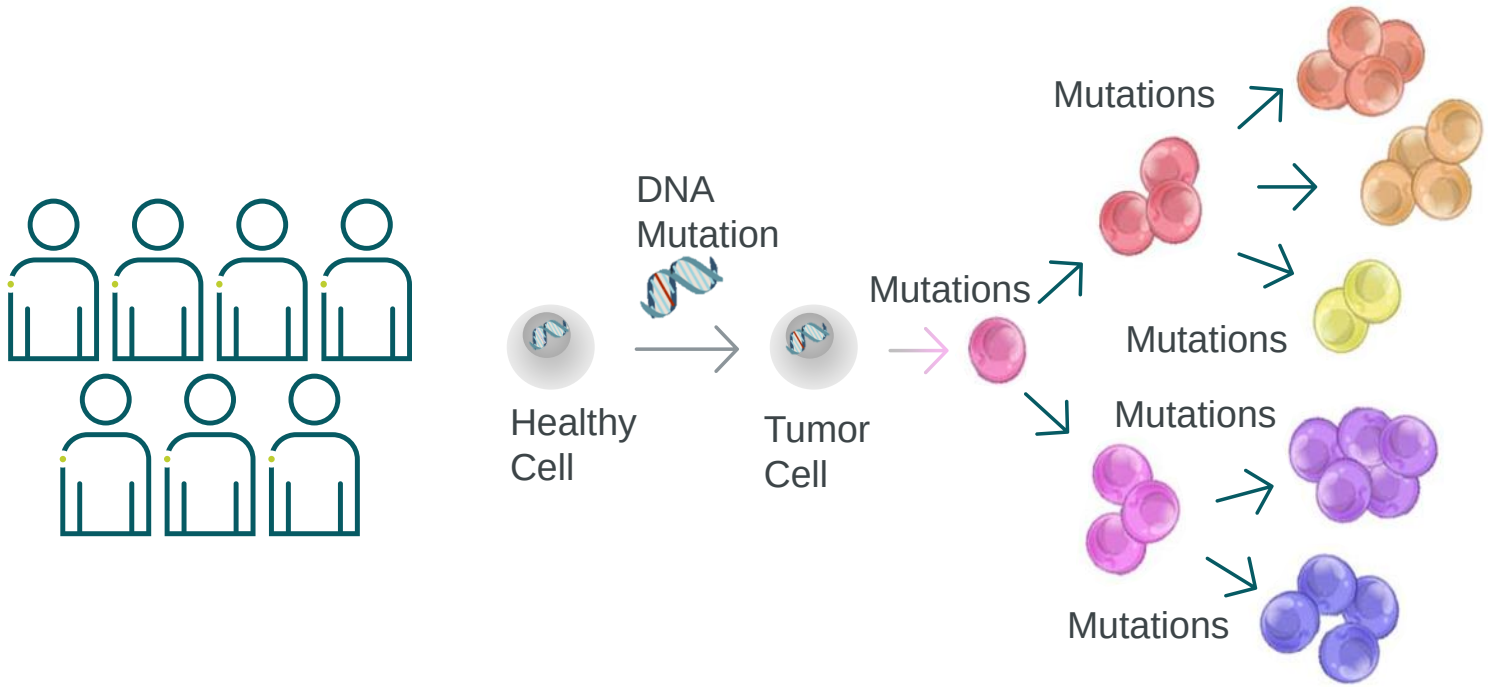
1. Tuberculosis program run in collaboration with the Bill & Melinda Gates Foundation, Mpox partnered with the Coalition for Epidemic Preparedness Innovations (CEPI), Malaria wholly owned program; 2. Partnered with Pfizer, 3. As of December, 2023.

Oncology Overview



Root Cause of Cancer Treatment Failure

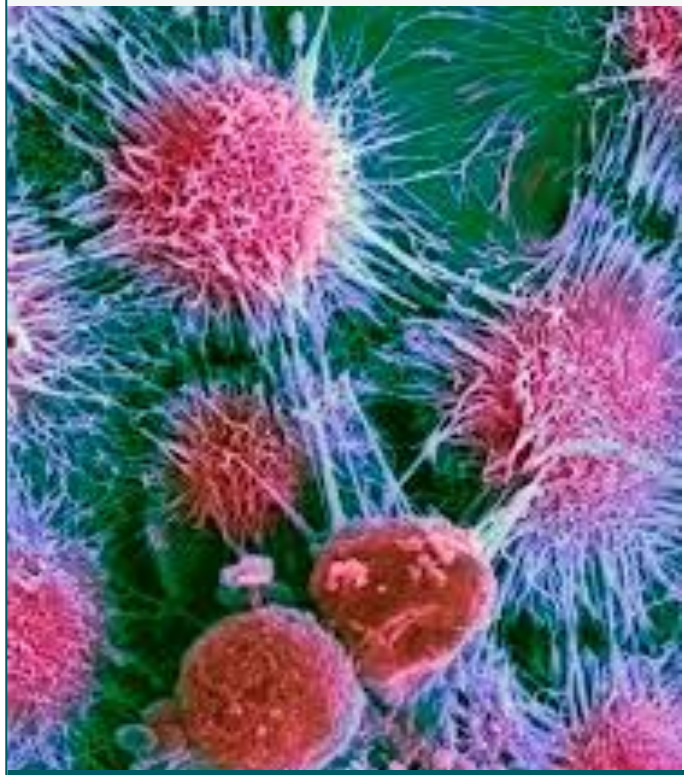
Intraindividual variability & intratumoral heterogeneity driving evasion and secondary resistance mechanism



Individual patients

5-20 Years – up to 10,000 mutations

Cancer cells



Genetically diverse & adaptable

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Our Oncology Approach

Goals

Address the 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

Portfolio strategy covering compound classes with synergistic mechanism of actions

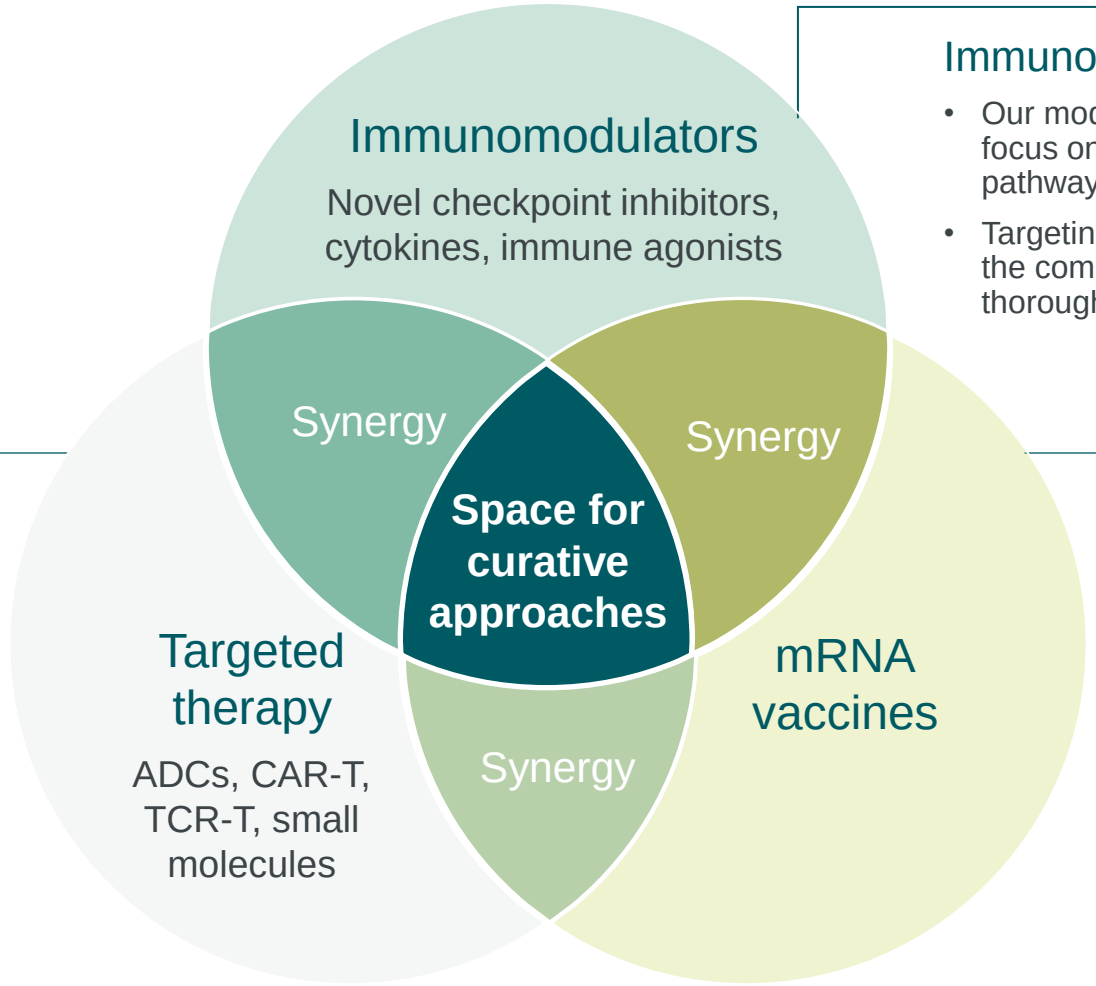
- Immunomodulators
- Targeted therapies
- Personalized mRNA vaccines

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

Towards a Potentially Curative Approach to Cancer: Differentiated Combinations of Multiplatform Assets



Immunomodulators

- Our modality agnostic armamentarium aims to focus on the most relevant and crucial IO pathways
- Targeting different but complementary players in the complex cancer immunity cycle may promote a thorough and durable anti-tumoral effect

Targeted therapy

- Potent and precise therapies could rapidly reduce tumor burden
- Efficacy across the entire disease continuum including late lines

mRNA cancer vaccines

- Could eliminate polyclonal residual disease with individualized vaccines for potential long-term impact
- Polyspecific activity by targeting multiple antigens at once

CAR = chimeric antigen receptor; ADC = antibody-drug conjugate; IO = immuno-oncology; TCR-T = T-cell receptor engineered T cell.

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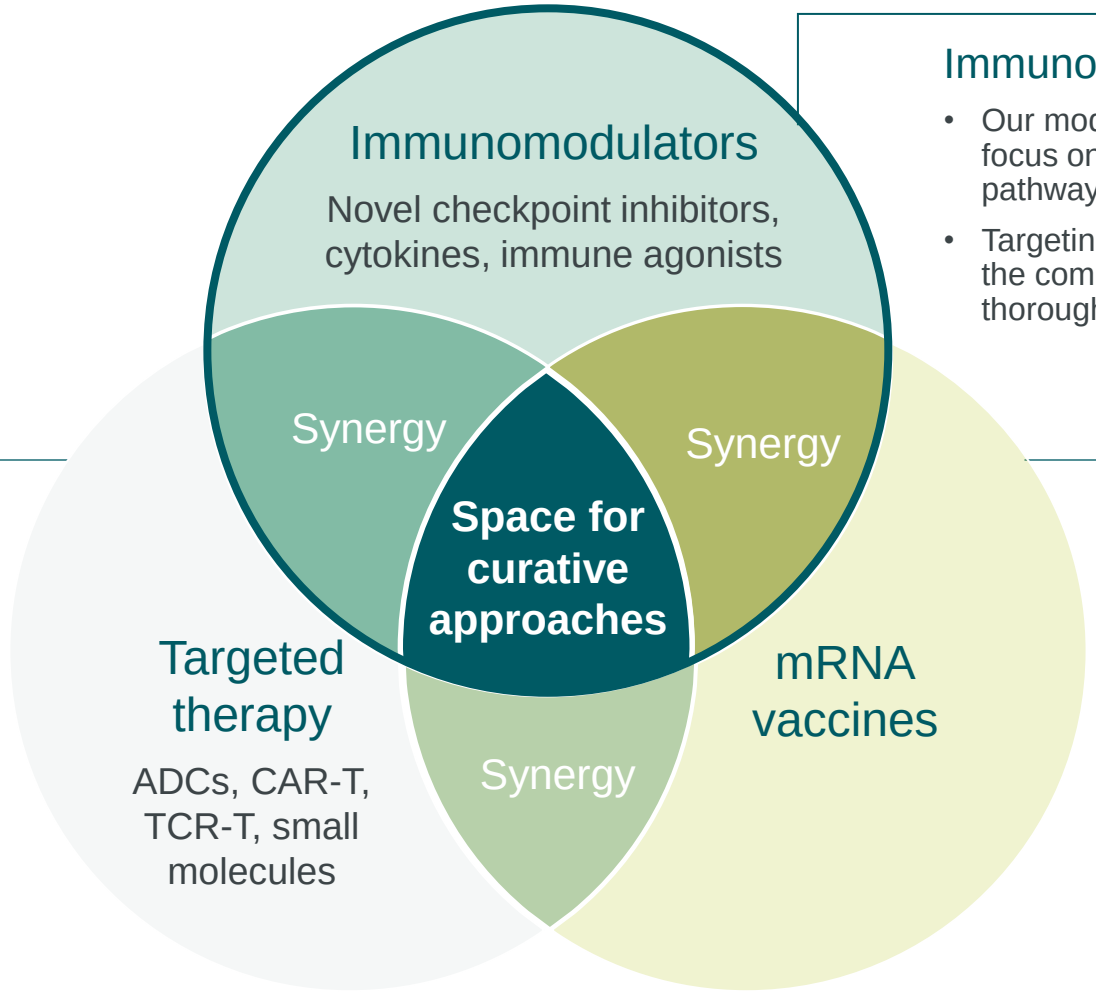
Towards a Potentially Curative Approach to Cancer: Differentiated Combinations of Multiplatform Assets



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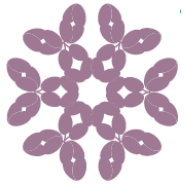
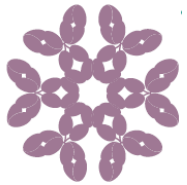
Therapeutic IO Candidates with Novel Mode of Action Across Multiple Solid Tumors

BNT316/ ONC-392[2] (gotistobart)	BNT311/ GEN1046[1] (acasunlimab)	BNT312/ GEN1042[1]	BNT313/ GEN1053[1]	BNT314/ GEN1059[1]	BNT315/ GEN1055[1]	BNT327/ PM8002[3]
Anti-CTLA4	Anti-PD-L1 Anti-4-1BB	Anti CD40 Anti-4-1BB	Anti-CD27	Anti-EpCAM Anti-4-1BB	Anti-OX40	Anti-VEGF
						
Optimized Fc	Inert Fc	Inert Fc	Inert Fc	Inert Fc	Inert Fc	Anti-PD-L1 VHH
Clinical status • Ph1/2 in multiple solid tumors • Ph2 in PROC • Ph3 in 2L+ mNSCLC	**Clinical status** • Ph1/2 in multiple solid tumors • Ph2 in mNSCLC • Ph2 in 2L mEC	**Clinical status** • Ph1/2 trials in multiple solid tumors	**Clinical status** • Ph1/2 in multiple solid tumors	**Clinical status** • IND approved • FIH planned	**Clinical status** • IND approved • FIH planned	**Clinical status** • Several Ph2/3 in patients in China ongoing • Investigational New Drug Application accepted for further studies in the U.S.

Multiple trial starts and data readouts planned in 2024

1. Partnered with Genmab; 2. Partnered with OncoC4; 3. Partnered with Biotheus. CTLA4 = Cytotoxic T-Lymphocyte-Associated Protein 4; CD27, CD40, 4-1BB = members of the tumor necrosis factor receptor superfamily; PDL-1 =Programmed cell death ligand 1; HER2 = human epidermal growth factor receptor 2; ADCC = Antibody dependent cell-mediated cytotoxicity; ADCP = Antibody dependent cellular phagocytosis; PROC = platinum-resistant ovarian cancer; NSCLC = non-small cell lung cancer; EC = endometrial cancer APC = antigen presenting cells; VEGF = vascular endothelial growth factor; TME = tumor microenvironment; CTx = chemotherapy; IND = investigational new drug application; FIH = first in human.

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PM8002[1] Combined with Nab-Paclitaxel: Antitumor Activity as First Line Therapy in Patients with TNBC

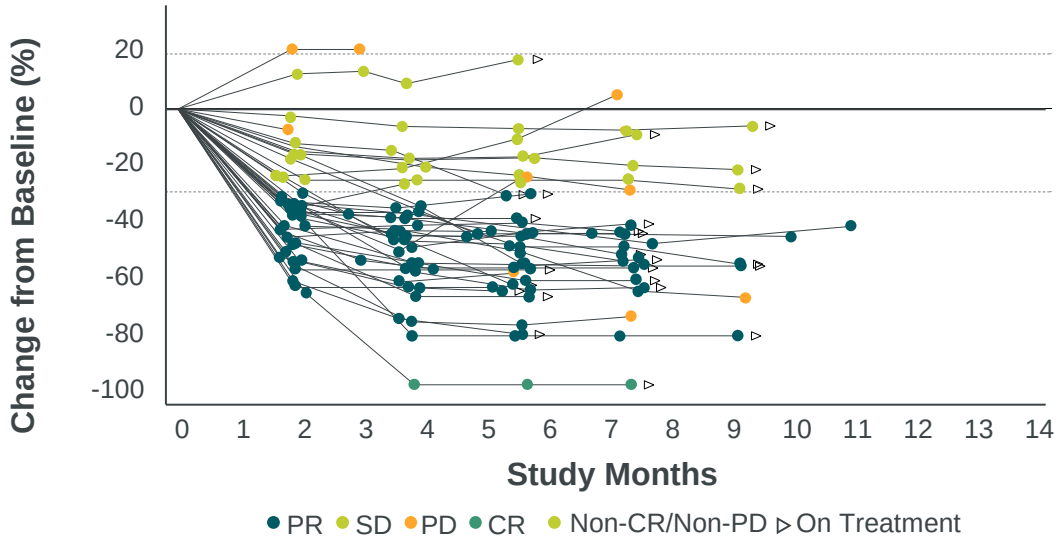
Phase 2 (NCT05879068): clinical activity of BNT327/PM8002 in combination with nab-paclitaxel

Jiong Wu et al. Presented at SABCS 2023. Poster#PS08-06

Anti-tumor activity observed in patients with locally advanced or metastatic triple-negative breast cancer (n=42)

ORR: 78.6%
DCR: 95.2%

Manageable adverse events



1. Partnered with Biotheus; TNBC = triple negative breast cancer; ORR = objective response rate; DCR = disease control rate, DoR = duration of response; PFS = progression free survival; PD = progressive disease; SD = stable disease; PR = partial response; CR = complete response

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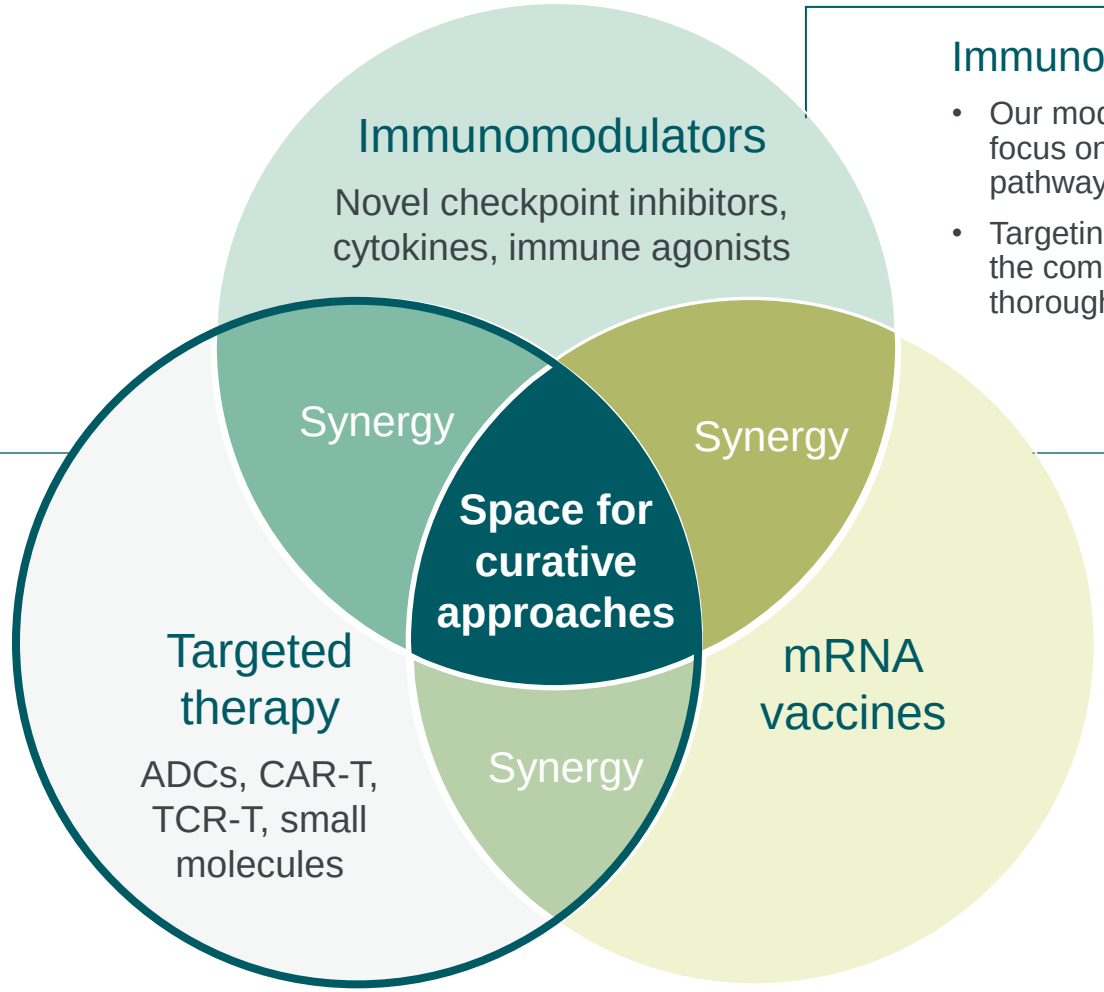
Towards a Potentially Curative Approach to Cancer: Differentiated Combinations of Multiplatform Assets



Immunomodulators

- Our modality agnostic armamentarium aims to focus on the most relevant and crucial IO pathways
- Targeting different but complementary players in the complex cancer immunity cycle may promote a thorough and durable anti-tumoral effect

Targeted therapy

- Potent and precise therapies could rapidly reduce tumor burden
- Efficacy across the entire disease continuum including late lines

mRNA cancer vaccines

- Could eliminate polyclonal residual disease with individualized vaccines for potential long-term impact
- Polyspecific activity by targeting multiple antigens at once

CAR = chimeric antigen receptor; ADC = antibody-drug conjugate; IO = immuno-oncology; TCR-T = T-cell receptor engineered T cell.

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ADCs: The Innovation Cycle is Just Beginning

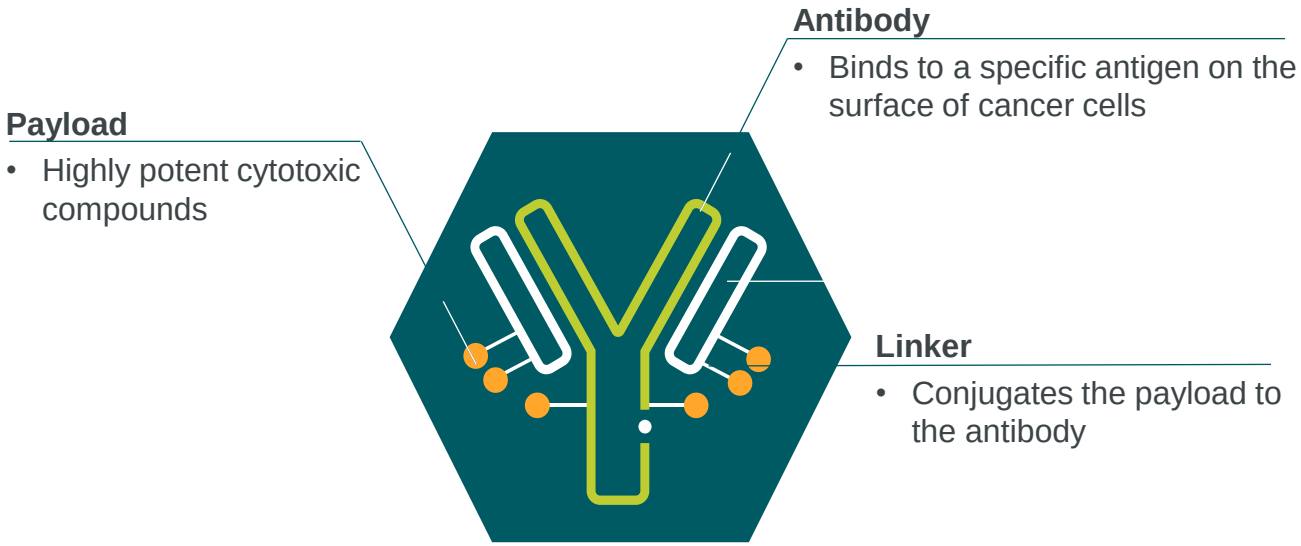
BioNTech is driving the development of next-generation ADCs

Differentiated ADC linker technology
- Stability improving safety profile
- Higher efficacy

Novel mechanisms of actions
- Tumor specific activation
- Improved and novel payloads

Novel targets and novel epitopes
- Targeting broader spectrum of tumors
- Higher specificity

BioNTech plans to develop ADCs against novel targets



Our deep understanding of ADC targets and immunology distinctively positions us to consolidate and maximize the substantial therapeutic window offered by the next-gen ADC technology

ADC = antibody-drug conjugate.

ADC Portfolio Constructed with Thoughtful Considerations

Expression level by indication[1]

Target	NSCLC	SCLC	HER2+ BC	HR+ BC	TNBC	CRC	Gastric	Ovarian	PDAC	HNSCC	Prostate
HER2											
TROP2											
B7-H3											
HER3											

High | Medium / / Low | Very low / No-expression

Target	Program	Stage	Indications	Partner
		Ph1/2 → Ph3		
HER2	BNT323/DB-1303	→	HR+ HER2-low mBC	DualityBio
		→	Solid tumors with HER2 expression	
TROP2	BNT325/DB-1305	→	Solid tumors	DualityBio
B7H3	BNT324/DB-1311	→	Solid tumors	DualityBio
HER3	BNT326/YL202	→	Solid tumors	MediLink*

Advanced asset on path to registration

- BNT323/DB-1303[2] in multiple pivotal studies

Unique indication selection strategy

- Four clinical stage ADCs with broad, yet minimal overlapping, indication opportunities
- Innovative trial design to open leapfrog path
- Fast-follower potential in large indications

Wider therapeutic window may enable novel combinations in earlier lines

- ADC combinations that are based on non-overlapping tumor antigens and different payload MoAs
- ADC + IO to advance towards (neo)adjuvant and frontline settings

1. RNAseq data from AACR Project GENIE; 2. Partnered with DualityBio. *The completion of the agreement with MediLink is subject to customary closing conditions, including clearance under the Hart-Scott-Rodino Antitrust Improvements Act. ADC = antibody-drug conjugate; IO = immuno-oncology; MoA = mode of action; HR = hormone receptor; HER = human epidermal growth factor receptor; TROP2 = trophoblast cell-surface antigen; UC = uretherial cancer; EC = endometrial cancer

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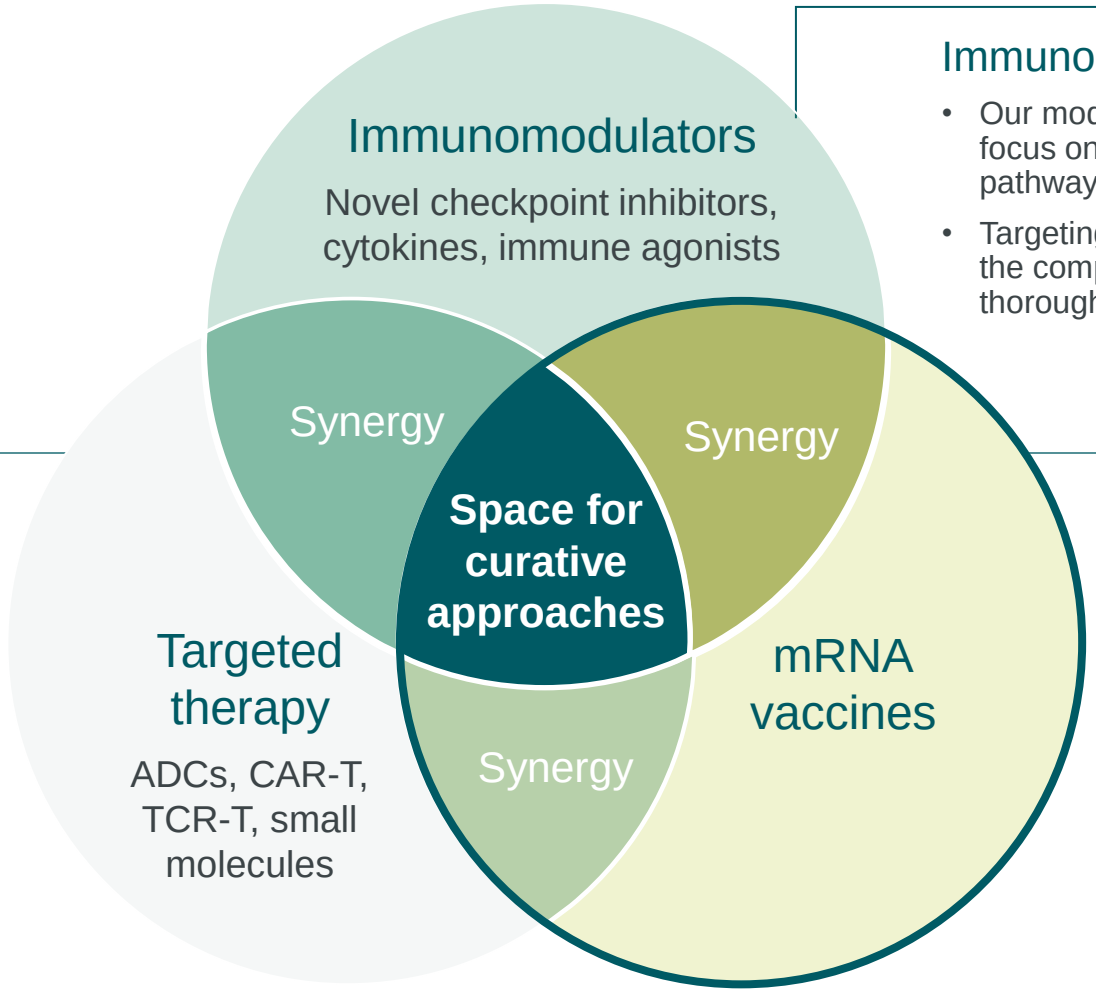

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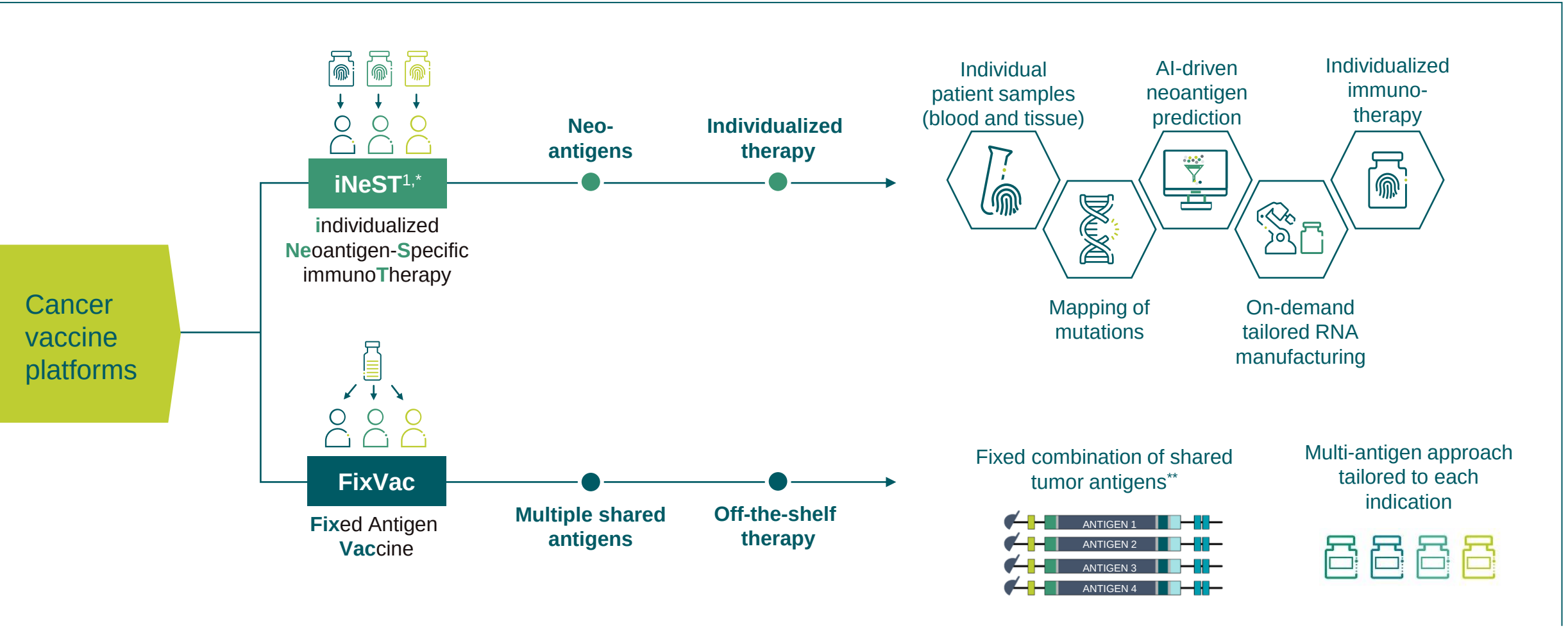
mRNA Cancer Vaccines May Become the Next Tangible Transformation in Oncology



1. iNeST is being developed in collaboration with Genentech, a member of the Roche Group. *autogene cevumeran/BNT122; ** Amount of tumor antigens varies across programs.
AI = artificial intelligence.

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Personalized mRNA Cancer Vaccines: Key Takeaways

Aim to bring personalized cancer vaccines into the adjuvant setting in multiple indications including tumors with low mutational burden and cold tumor types

Adjuvant Setting

Low tumor mass, with residual cancer cells

Tumor resistance mechanisms not fully established

Healthier immune system allows for functional T-cell responses

Low Mutational Burden

High unmet need, not addressed by approved immunotherapies

Demonstrated ability to generate durable *de novo* neoantigen specific polyepitope T-cell responses in multiple cold tumor types

Colorectal Cancer

20-35% relapse rate within 4 years after adjuvant therapy

- 5-year survival rates of locoregional disease are ~70%
- ctDNA is a potential marker for minimal residual disease and is under evaluation to identify patients at high risk of disease recurrence[1-3]

Randomized Phase 2 trial in adjuvant setting initiated and recruiting

Pancreatic Ductal Adenocarcinoma

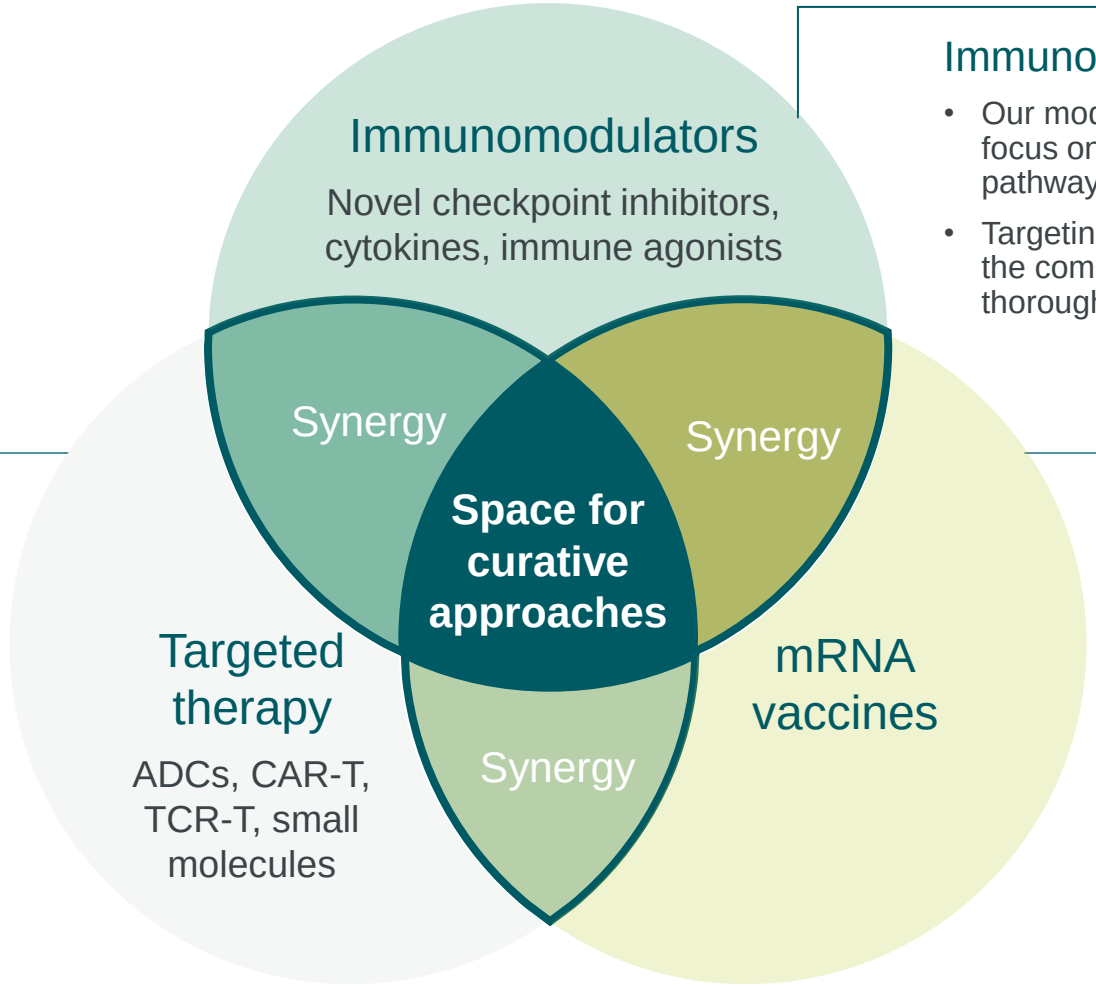
69−75% relapse rate within 5 years after adjuvant therapy

- Expected to become the 2nd leading cause of cancer-related death in the US by 2030
- 5-year survival rates after resection alone are ~10%[4,5]
- CPI resistant due to low mutation burden and consecutively few mutation-derived neoantigens

Phase 1 trial completed & randomized Phase 2 trial in adjuvant setting recruiting

1. Kotani et al. Nat Med. 2023, 2. Vesterman Henriksen et al. Clin Cancer Res.2022; 3. Chidharla et al. Int J Mol Sci. 2023; 4. Oettle, H. et al. JAMA 2013; 5. Neoptolemos, J. P. et al. NEJM 2004.
CPI = checkpoint inhibitor.

Contribute to a Potentially Curative Approach to Cancer: Differentiated Combinations of Multiplatform Assets



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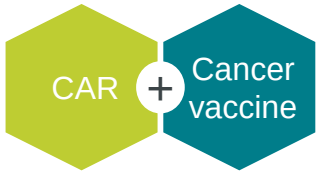
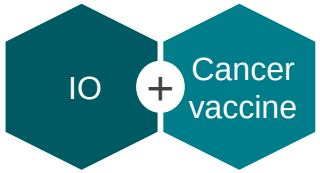
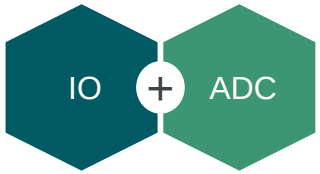
Our Pipeline Holds Potential for Synergistic Drug Combinations



mRNA cancer vaccine mediates *in vivo* stimulation and controlled expansion of CAR-T cells, induces a memory T cell phenotype, increases target sensitivity[1]

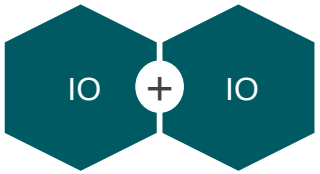


Immunomodulators could activate the immune system supporting vaccine-induced tumor-specific T cell responses

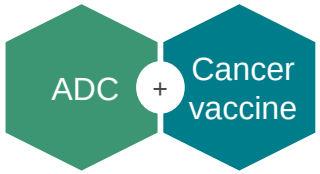


ADCs deliver cytotoxic drugs directly to cancer cells while immunomodulators activate the immune system to recognize and destroy cancer cells

Potentially converging checkpoint inhibition and improved immune cell trafficking and ADC penetration



Complementary and/or potentially synergistic MoA of immunomodulators could enhance T cell priming and sustain activation



ADCs could quickly debulk tumors while cancer vaccines potentially boost the immune system to eradicate multi-clonal micrometastases; hence potentially lifting the long-term survival curve

1. Reinhard, K. et al. Science. 2020.
CAR = chimeric antigen receptor; IO = immuno-oncology; ADC = antibody-drug conjugates; MoA = mechanism of action.

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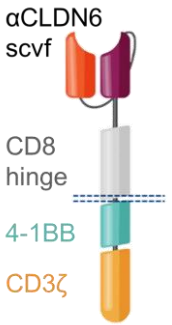
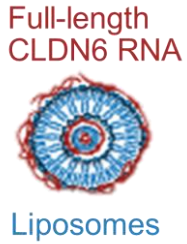
BNT211 – A Potentially First-in-Class Approach for CLDN6+ Solid Tumors

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]



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

CAR-T cell strategy

Achievements:

- Presented PoC data for BNT211 in CLDN6+ indications

Near-term strategy:

- Aim to establish CLDN6 as proven target in solid tumors
- Aim to establish first CAR T-cell therapy in first solid tumor indication (R/R germ cell tumors)

Mid- to long-term strategy:

- Explore expansion into other solid tumor indications

A pivotal trial in R/R germ cell tumors is planned to be initiated in 2024

EMA PRIME designation in testicular cancer

1. Kranz LM, et al. Nature. 2016; 2. ŞahinU, et al. Nature. 2020; 3.Reinhard K, et al. Science. 2020.
CLDN6 = Claudin 6; CAR = chimeric antigen receptor; scvf = single-chain variable fragment; CD = cluster of differentiation; EMA= European Medicines Agency; PRIME = PRIority MEdicines; R/R = relapsed refractory; PoC = proof of concept.

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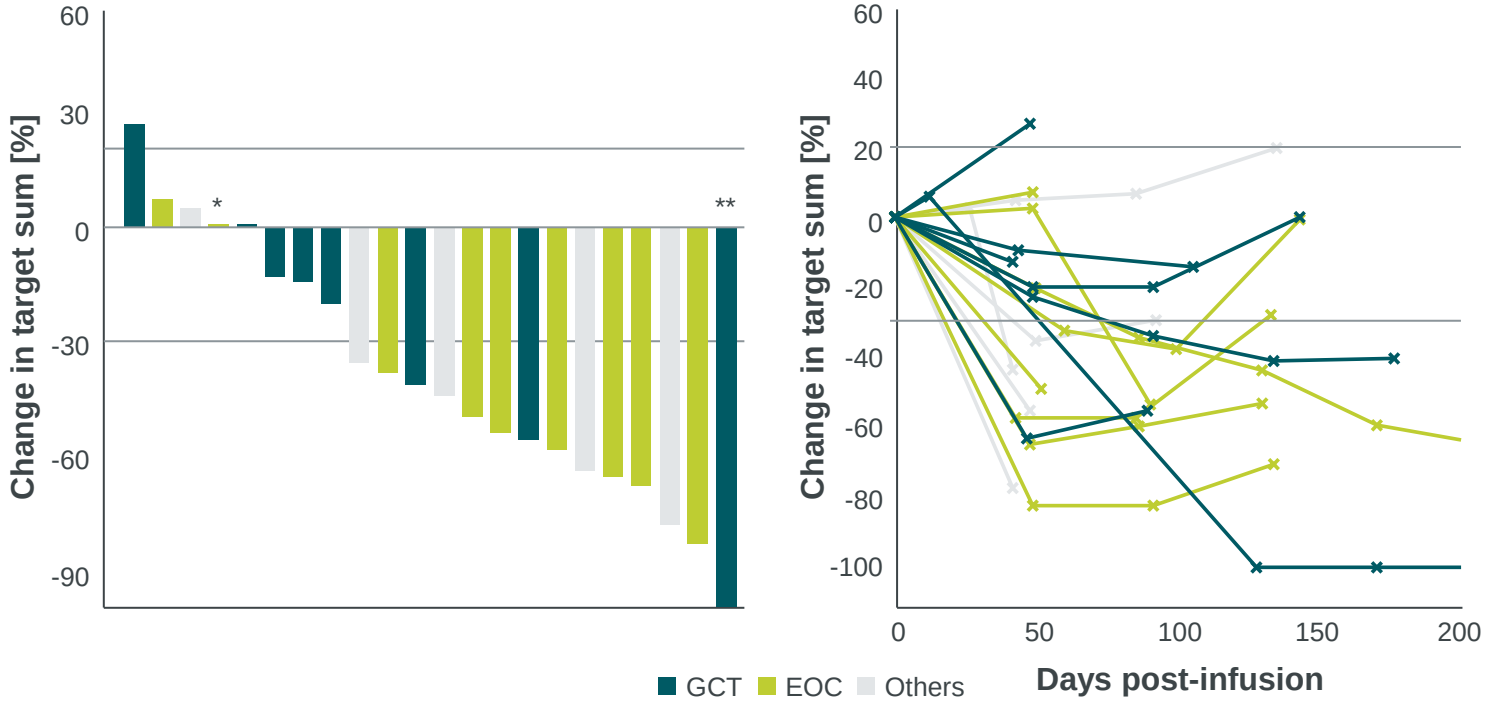
BNT211-01: Antitumoral Activity at Dose Level 2

Phase 1/2 FIH study (NCT04503278): Efficacy at all dose levels

Haanen J. et al. Presented at ESMO 2023. Abstract #LBA35.

Best response and change in target sum (DL2 only± CLDN6 CARVac)



CLDN6 CAR-T	<DL2	DL2	>DL2	Total
Safety evaluable patients, n	10	**27**	7	44
Efficacy evaluable patients, n	9	**22**	7	38
Patients with PR/CR, n	1	**13**	3	17
Patients with SD, n	1	**8**	2	11
Patients with PD, n	7	**1**	2	10
ORR, %	11.1	**59.1**	42.9	44.7
DCR, %	22.2	**95.5**	71.4	73.7

Data cut-off: 10 Sep 2023. Waterfall plot showing best percent change from baseline in sum of target lesion diameters and spider plot showing percent change in target sum from baseline over time for patients treated with CLDN6 CAR-T ± CLDN6 CARVac at DL2 (N = 22). * Patient had non-measurable disease per RECIST 1.1 and BOR was assessed by tumor marker response. ** Patient achieved complete response after surgical removal of tumors. Response data was pending for 5 patients at the data cut-off. Dotted lines show standard response evaluation criteria used to determine objective tumor response for target lesions per RECIST 1.1 (CR = –100%, PR = 30 to –100%, SD = –30 to 20%, and PD = 20% or higher). Graphs contains additional data entered manually into the database following the data cut-off date that was not available in formal outputs. BOR = best overall response; CR = complete response; DCR = disease control rate; DL = dose level; EOC = epithelial ovarian cancer; GCT = germ cell tumor; PD = progressive disease; ORR = objective response rate; PR = partial response; SD = stable disease.

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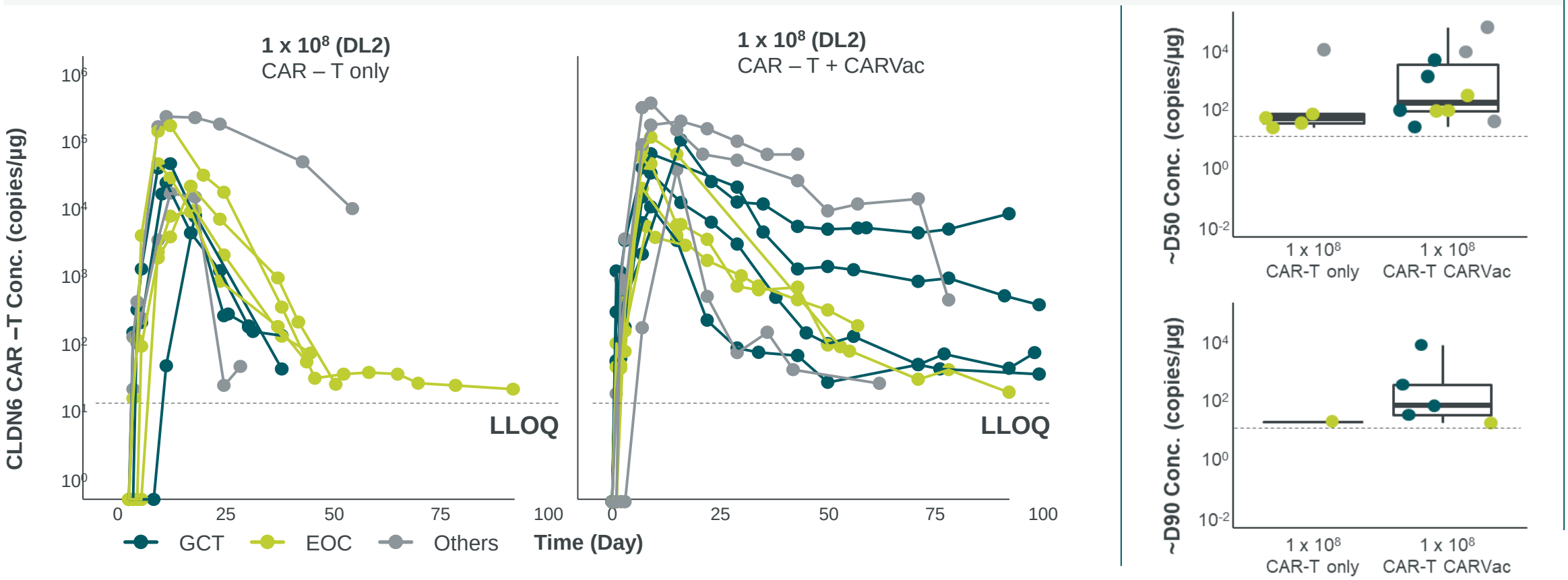
BNT211-01: CARVac Improves CAR-T Persistence at Dose Level 2

Phase 1/2 FIH study (NCT04503278): Pharmacokinetic data

Haanen J. et al. Presented at ESMO 2023. Abstract #LBA35.



Data cut-off: 1 Sep 2023. BioNTech data on file derived from peripheral blood applying semi-quantitative PCR directed against CAR transgene. Displayed as copies of transgene per µg of DNA input of isolated PBMC. Pending data up to day 50: 2 patients each in monotherapy and combination cohort. Pending data up to day 90: 3 patients for monotherapy, and 4 patients for combination cohort. CAR = chimeric antigen receptor; CARVac = CAR T-cell amplifying RNA vaccine; DL = dose level; EOC = epithelial ovarian cancer; GCT = germ cell tumor; LLOQ = lower limit of quantification; PBMC = peripheral blood mononuclear cells.

Our Achievements in 2023 Pave Way for the Next Stage of Growth in Oncology

NSCLC = non-small cell lung cancer; HR = hormone receptor; HER = human epidermal growth receptor; BC = breast cancer; CRC = colorectal cancer; PDAC = pancreatic ductal adenocarcinoma.

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Advancing Our Vision: A Once In a Generation Opportunity to Transform Medicine

Driving transformation today

Globally marketed COVID-19 vaccine franchise[1]

Oncology

20 programs in
30 clinical trials

9 Phase 2 trials
2 Phase 3 trials

Infectious diseases

7 programs in
9 clinical trials

Initiating additional potentially registrational trials

Mid-term goals 2025-2029

Launch next-generation and combination COVID-19 vaccines

Launch multiple oncology products from 2026 onwards

Innovation engine producing multiple INDs per year

Long-term vision 2030

Maintain and deepen COVID-19 vaccine leadership

Approved products across oncology and infectious disease portfolio

Potential new disease areas

- Cardiovascular diseases
- Neurodegenerative diseases
- Autoimmune diseases

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

1. Partnered with Pfizer. IND = Investigational new drug.

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Thank you

Appendix

Advancing our Pipeline: Select Data Milestones in 2024

	Program	Indication	Targeted Milestone
Oncology	BNT311/GEN1046 (acasunlimab)[1]	R/R met. NSCLC, +/- pembrolizumab	Phase 2 data
	BNT312/GEN1042[1]	Multiple solid tumors	Ph1/2 expansion cohort data
	BNT316/ONC-392 (gotistobart)[2]	Multiple solid tumors	Ph1/2 expansion cohort data
	BNT323/DB-1303[3]	Multiple solid tumors	Ph1/2 expansion cohort data
	BNT325/DB-1305[3]	Multiple solid tumors	Ph1/2 data
	BNT327/PM8002[4]	Multiple solid tumors	Phase 2 data
Infectious Disease	BNT162b2[5]	COVID-19, Omicron XBB.1.5 monovalent vaccine	Phase 2/3 data
	BNT167[5]	Shingles	Phase 1 trial update

1. Partnered with Genmab; 2. Partnered with OncoC4; 3. Partnered with DualityBio; 4. Partnered with Biotheus; 5. Partnered with Pfizer.
NSCLC = non-small cell lung cancer, R/R = relapsed/refractors.