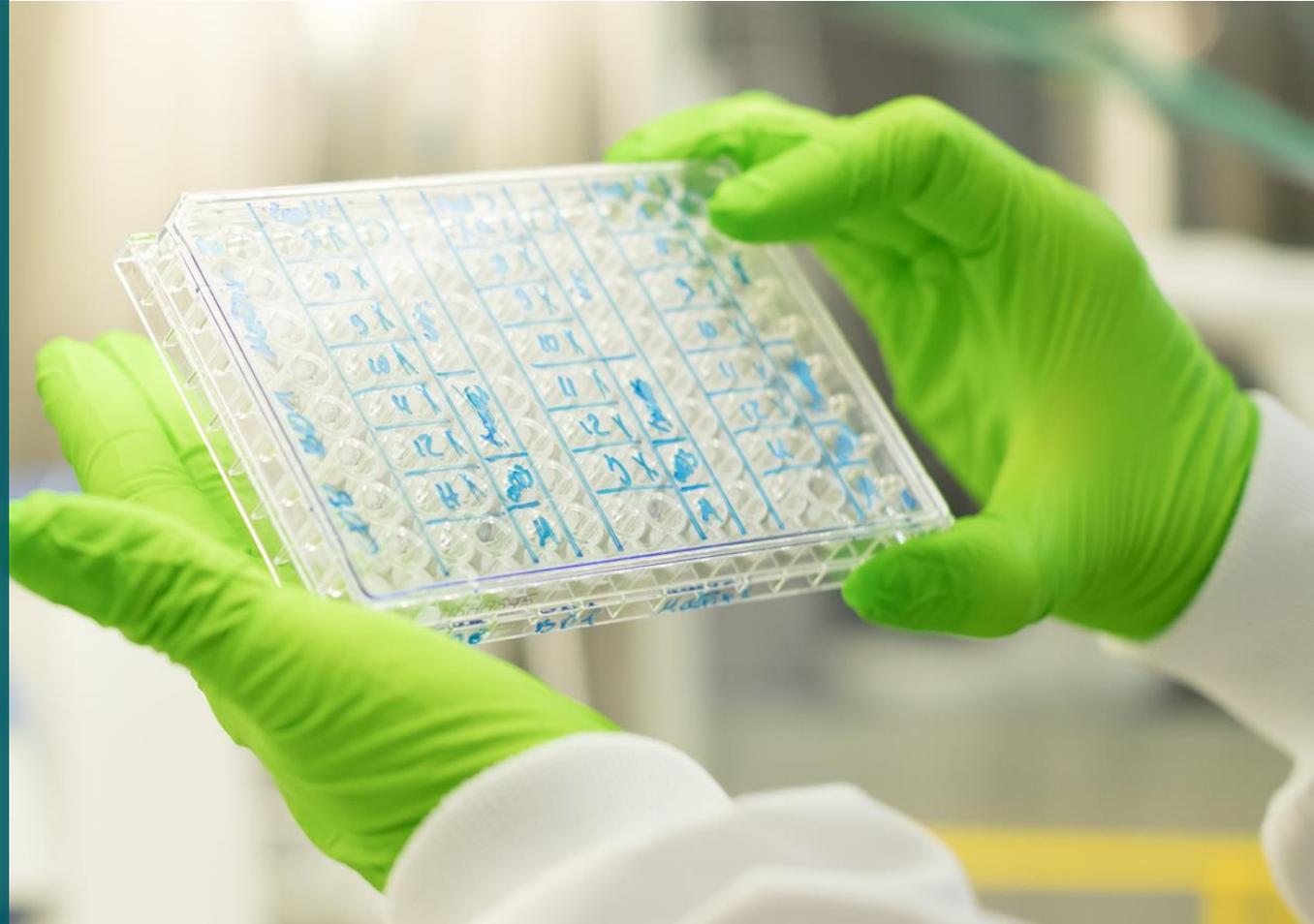


Harnessing the full potential of the immune system

First Quarter 2021

Corporate update and
financial results

May 10, 2021



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 BioNTech's efforts to combat COVID-19; the collaboration between BioNTech and Pfizer regarding a COVID-19 vaccine; our expectations regarding the potential characteristics of BNT162b2 in our continuing trials and/or in commercial use based on data observations to date, including real-world data gathered; the ability of BNT162b2 to prevent COVID-19 caused by emerging virus variants; the expected time point for additional readouts on trial data of BNT162b2 in our ongoing trials; the timing for submission of data for, or receipt of, any marketing approval or Emergency Use Authorization; our contemplated shipping and storage plan, including our estimated product shelf life at various temperatures; the ability of BioNTech to supply the quantities of BNT162 to support clinical development and market demand, including our production estimates and targets for 2021 and 2022; BioNTech's projected revenues for the COVID-19 vaccine in 2021; BioNTech's projected expenses, capital expenditures and tax rate for 2021; BioNTech's target vaccine production for 2021; BioNTech's COVID-19 vaccine revenues and net sales, which are subject to numerous estimates as more fully described in our Annual Report on Form 20-F and our Quarterly Report for the Three Months ended March 31, 2021; the planned next steps in BioNTech's pipeline programs and specifically including, but not limited to, statements regarding plans to initiate clinical trials of BioNTech's product candidates; BioNTech's plans for expansion in South East Asia, including its planned regional headquarters and manufacturing facility in Singapore; and expectations for data announcements with respect to BioNTech's clinical trials. 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 quarterly report 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. You should review the risks and uncertainties described under the heading "Risk Factors" in this quarterly report 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 quarterly report 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

AUTHORIZED USE IN THE U.S.:

The Pfizer-BioNTech COVID-19 Vaccine is authorized for use under an Emergency Use Authorization (EUA) for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 16 years of age and older.

IMPORTANT SAFETY INFORMATION FROM U.S. FDA EMERGENCY USE AUTHORIZATION PRESCRIBING INFORMATION:

- 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.
- 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.
- Monitor Pfizer-BioNTech COVID-19 Vaccine recipients for the occurrence of immediate adverse reactions according to the Centers for Disease Control and Prevention guidelines (<https://www.cdc.gov/vaccines/covid-19/>).
- Immunocompromised persons, including individuals receiving immunosuppressant therapy, may have a diminished immune response to the Pfizer-BioNTech COVID-19 Vaccine.
- The Pfizer-BioNTech COVID-19 Vaccine may not protect all vaccine recipients.
- In clinical studies, adverse reactions in participants 16 years of age and older included pain at the injection site (84.1%), fatigue (62.9%), headache (55.1%), muscle pain (38.3%), chills (31.9%), joint pain (23.6%), fever (14.2%), injection site swelling (10.5%), injection site redness (9.5%), nausea (1.1%), malaise (0.5%), and lymphadenopathy (0.3%).
- Severe allergic reactions, including anaphylaxis, have been reported following the Pfizer-BioNTech COVID-19 Vaccine during mass vaccination outside of clinical trials.
- Additional adverse reactions, some of which may be serious, may become apparent with more widespread use of the Pfizer-BioNTech COVID-19 Vaccine.
- Available data on Pfizer-BioNTech COVID-19 Vaccine administered to pregnant women are insufficient to inform vaccine-associated risks in pregnancy.
- Data are not available to assess the effects of Pfizer-BioNTech COVID-19 Vaccine on the breastfed infant or on milk production/excretion.
- There are no data available on the interchangeability of the Pfizer-BioNTech COVID-19 Vaccine with other COVID-19 vaccines to complete the vaccination series. Individuals who have received one dose of Pfizer-BioNTech COVID-19 Vaccine should receive a second dose of Pfizer-BioNTech COVID-19 Vaccine to complete the vaccination series.
- Vaccination providers must report Adverse Events in accordance with the Fact Sheet to VAERS at <https://vaers.hhs.gov/reportevent.html> or by calling 1-800-822-7967. The reports should include the words "Pfizer-BioNTech COVID-19 Vaccine EUA" in the description section of the report.
- Vaccination providers should review the Fact Sheet for Information to Provide to Vaccine Recipients/Caregivers and Mandatory Requirements for Pfizer-BioNTech COVID-19 Vaccine Administration Under Emergency Use Authorization.

Please see Emergency Use Authorization (EUA) Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) including Full EUA Prescribing Information available at www.cvdvaccine-us.com.

Agenda

**First Quarter
2021 Highlights**

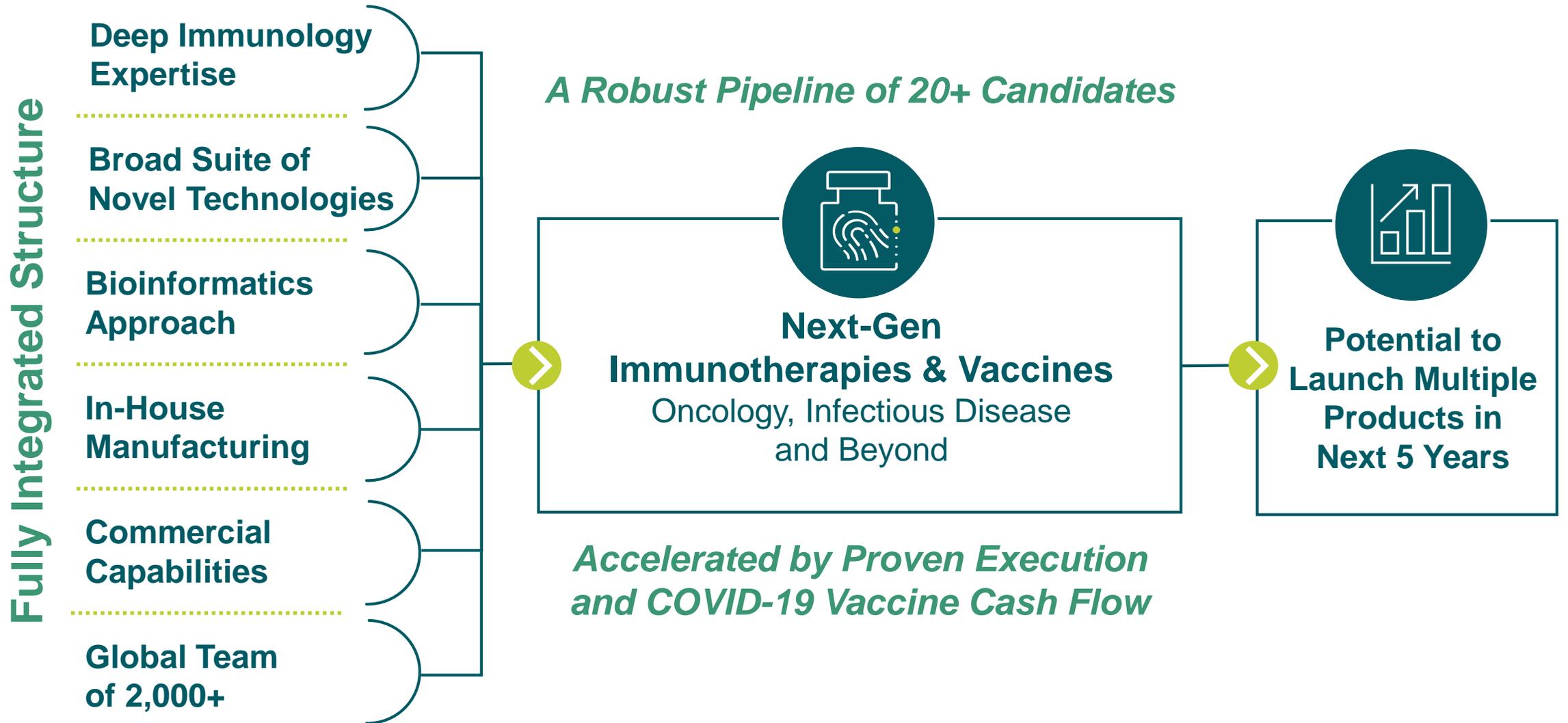
**COVID-19
Vaccine Update**

**Oncology
Pipeline Update**

**Financial
Results**

**Corporate
Update &
Outlook**

Transformed into a Fully Integrated, Global Immunotherapy Company



Building a 21st Century Global Immunotherapy Powerhouse



Increase global footprint

- New regional headquarters planned in Singapore
- Commercial subsidiaries established in Germany and Turkey
- Offices established in the United States



Expand integrated infrastructure

- Continue investment in innovation to support future product launches
- Invest in clinical, commercial and manufacturing, and digital capabilities
- Attract and retain top talent



Rapidly advance pipeline

- 14 product candidates in 15 ongoing clinical trials
- 3 potentially registrational phase 2 trials initiating this year
- Advance innovations into first-in-human studies
- Strategic in-licensing to complement internal R&D

Highlights From First Quarter 2021 and Beyond

First Patients Dosed in Multiple First-in-Human Studies

- Next generation CAR-T in combination with CARVac (BNT211)
- NEO-STIM Neoantigen-targeting T cell therapy (BNT221)
- Ribocytokine (BNT151)

Executorial Excellence in Infectious Disease with COVID-19 Vaccine

- >450M doses shipped to 91 countries and territories worldwide*
- ~1.8 billion doses contracted to date for 2021, and with first contracts in place for 2022 and beyond
- €2.0 billion COVID-19 vaccine revenues in Q1
- Topline results confirming high efficacy and no serious safety concerns through up to six months following second dose
- 100% efficacy and robust antibody responses in Phase 3 trial of adolescents aged 12-15

*as of May 6

Focused on Six Key Levers to Expand COVID-19 Vaccine Reach

Increased Manufacturing Capacity



- Up to 3 billion doses by end of 2021; more than 3 billion doses in 2022
- First shipments from Marburg facility delivered mid April
- New regional headquarters in Singapore to house mRNA manufacturing facility

Additional Populations



- Expect FDA feedback on EUA label expansion in adolescents 12 to 15 years in May
- Variation submitted to EMA to expand label in adolescents 12 to 15 years
- Ongoing study in children 6 months to 11 years of age; first data expected in Q3

Additional Geographies



- Authorized or approved for emergency authorization in more than 70 countries worldwide
- Shipped to 91 counties and territories
- Regulatory submission for BLA in China underway

Broadened & Decentralized Vaccine Access



- U.S. rolling BLA submission initiated
- Initiated Phase 3 trial to evaluate lyophilized and a ready-to use formulation; data expected in Q3
- Data submitted to FDA and EMA to broaden label to 4-week storage at 2°C to 8°C

Addressing SARS-CoV-2 Variants

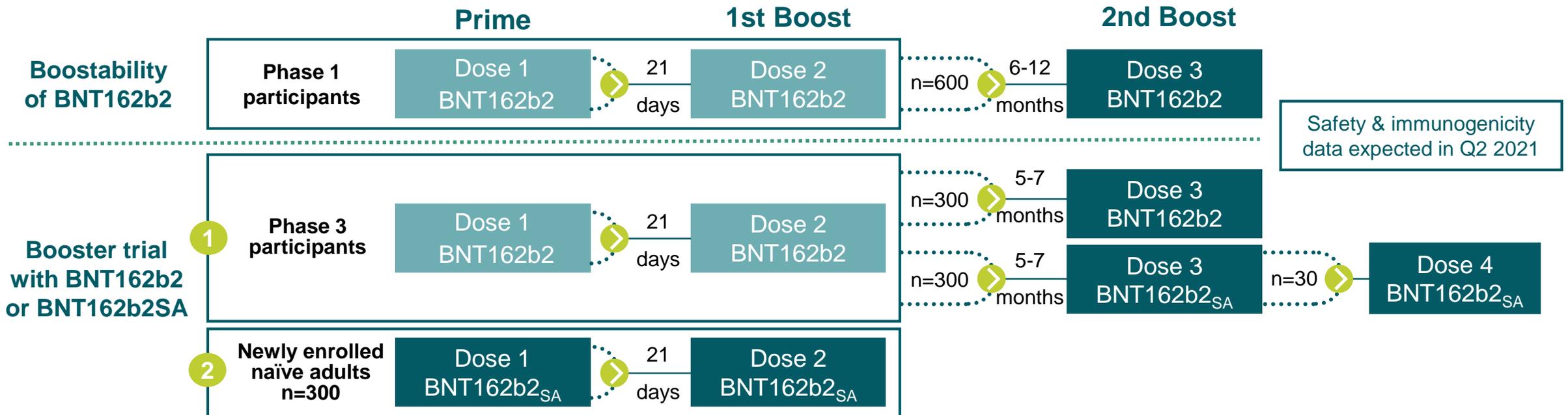


- Ongoing trial to evaluate variant-specific version BNT162b2SA in naïve and vaccinated individuals as well as third dose of BNT162b2 at 6 – 12 months post dose 2
 - Effect on waning immune response against original strain
 - Effect on immune response against variant strains

Addressing Waning Immune Responses

Preemptive Strategy to be Prepared for Addressing SARS-CoV-2 Variants

- **No evidence that adaptation of BNT162b2 is needed to date**
 - Sera of BNT162b2 vaccinated individuals neutralize B.1.1.7 (UK), B.1.351 (SA), and P.1 (brazilian) lineage* in *in vitro* studies
- **Expansion of global Phase 1/2/3 trials:**
 - 3rd dose to evaluate safety, magnitude and duration of immunity and variant protection
 - Variant specific booster to evaluate safety and immunogenicity of B.1.351 Spike version of BNT162b2 (BNT162b2_{SA})
 - “Blueprint“ approach informs regulatory path and manufacturing



Strong Order Book Growth in Q1

~1.8 billion doses contracted for 2021

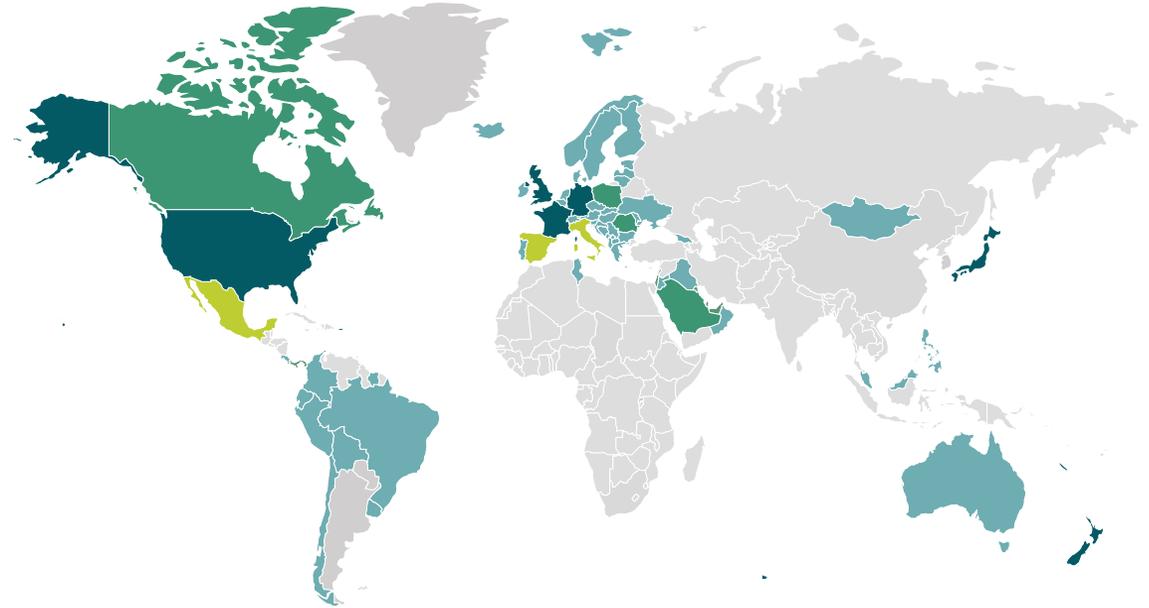
Selected Regions	Current Orders 2021
EU	600 million
US	300 million
Japan	144 million
UK	90 million
Other	~680 million

First orders contracted for 2022 and beyond

125 million doses for Canada in 2022/2023
with option for 60 million in 2024

Millions of doses to be supplied to Israel in 2022

Ongoing discussions in other regions for
additional doses in 2021 and beyond



Expanding vaccine access to new
populations & geographies with
first supply contracts for post-2021

Manufacturing Capacity Increased to Address Worldwide Vaccine Need

- BioNTech now targeting 3 billion doses in 2021*
 - Manufacturing capacity in 2022 to exceed 3 billion doses
-
- BioNTech contributing more than 50% of drug substance
 - **Marburg site launch brings BioNTech manufacturing capacity to 1 billion doses annually**
 - BioNTech expects to deliver ~250 million doses in 1H 2021
 - Marburg site first batch delivered in April
 - Established mRNA manufacturing in Marburg facility in less than six months
 - To become one of the largest mRNA manufacturing sites worldwide



Agenda

First Quarter
2021 Highlights

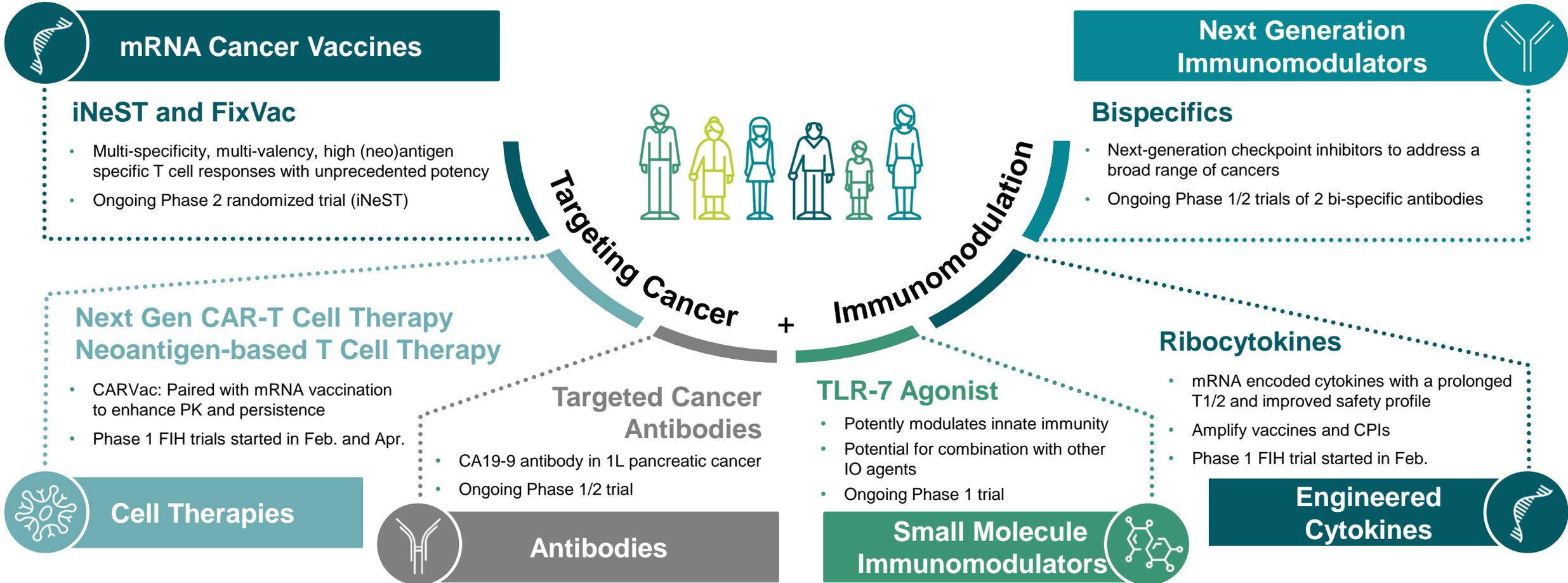
COVID-19
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Tackling Multiple Diseases with Different Therapeutic Modalities



Multiple blockbuster opportunities with synergistic combinations

Multiple Oncology Trials with Registrational Potential Starting in 2021

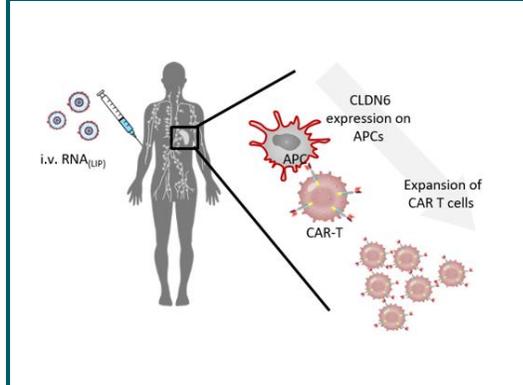
Plan to start randomized Phase 2 trials for 3 programs

..... **Advanced Oncology Pipeline Programs** **Near-Term Milestones**

Drug Class	Platform	Product Candidate	Indication (Targets)	Preclinical	Phase 1	Phase 2	
mRNA	FixVac (fixed combination of shared cancer antigens)	BNT111	advanced melanoma				BNT111: Phase 2 to start in 1H 2021
		BNT113	HPV16+ head and neck cancer				BNT113: Phase 2 to start in 1H 2021
	iNeST (patient specific cancer antigen therapy)	autogene cevumeran (BNT122)	1L melanoma				BNT122: Phase 2 to start in 2H 2021 (adjuvant CRC)
			adjuvant colorectal cancer				
Antibodies	Next-Gen Checkpoint Immunomodulators	GEN1046 (BNT311)	solid tumors (PD-L1×4-1BB)				BNT311: Data update in 2H 2021
		GEN1042 (BNT312)	solid tumors (CD40×4-1BB)				BNT312: Data update in 2H 2021

Next Wave Oncology Advancing Innovation Beyond Current Boundaries

CARVac CAR-T cell amplifying mRNA therapy for solid tumors¹

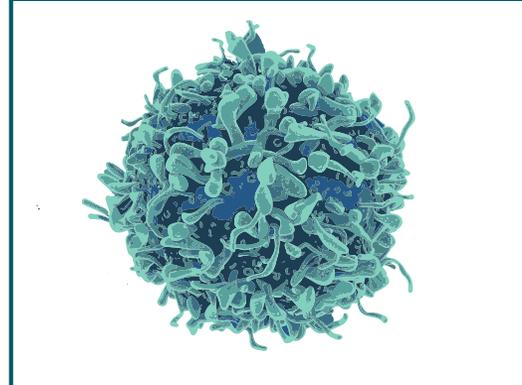


- **BNT211 (CLDN 6 CAR)**
Next generation CAR-T
targeting CLDN6 with
CARVac

Wholly owned:

FIH start: **FPD Feb. 2021**

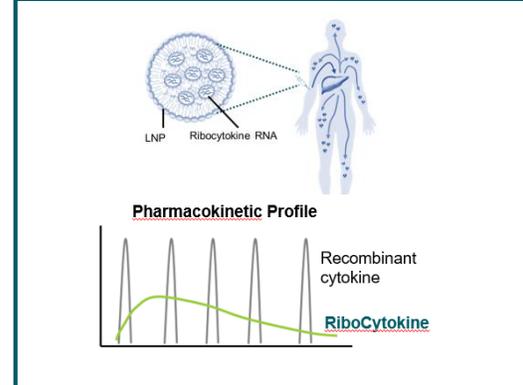
NEOSTIM T cell therapy Individualized Neoantigen specific T cell therapy



- **BNT221**
PBMC derived ex
vivo T cell therapy

FPD Apr. 2021

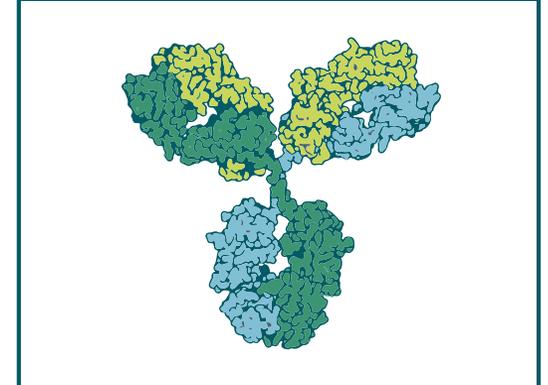
RiboCytokines mRNA encoded Cytokines



- **BNT151**
(modified IL-2)
- **BNT152 + BNT153**
(IL-2/IL-7)

BNT151: FPD Feb. 2021

RiboMabs² mRNA encoded Antibodies



- **BNT141**
(undisclosed)
- **BNT142**
(CD3xCLDN6)

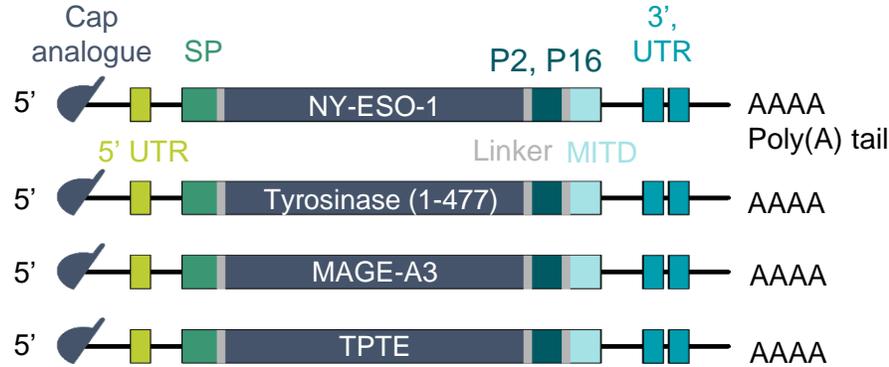
2H 2021

15 FPD, first patient dosed; CLDN6, Claudin-6, CAR-T cells, chimeric antigen receptor T cells; IL-2, interleukin 2; IL-7, Interleukin 7; PBMC, peripheral blood mononuclear cells; FIH, first in human
¹ Reinhard K, et al. Cancer Immunotherapy 2020; 367:446-453; 2 Stadler et al, Oncoimmunology 2018

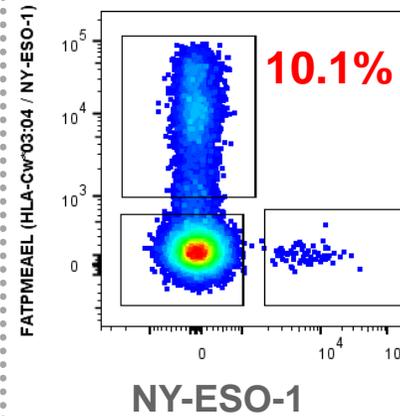
BNT111: FixVac Melanoma Compelling Preliminary Data

Off-the-shelf mRNA Immunotherapy

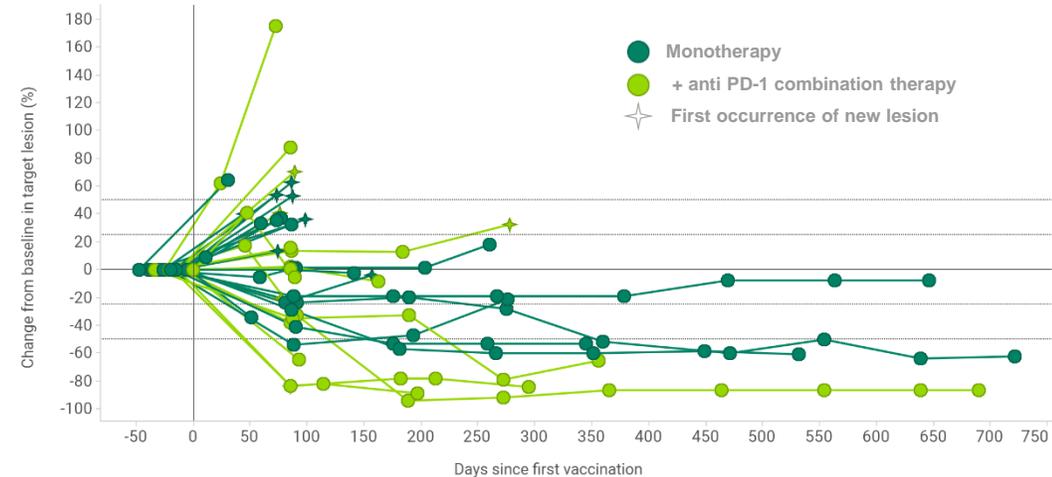
- Fixed combination of non-nucleoside modified mRNA
- Encodes 4 tumor-associated antigens (TAA) covering ~95% of melanoma patients
- Intravenous formulation targets antigen presenting cells bodywide to stimulate antigen-specific T cell responses



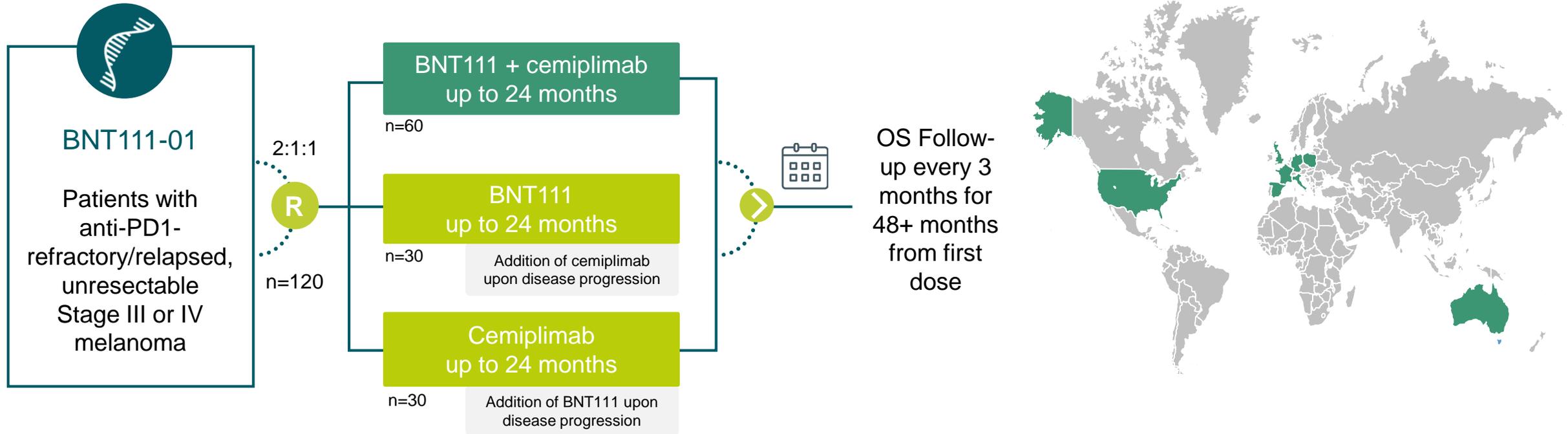
Phase 1 trial in Advanced Melanoma published in Nature



- Tolerable safety as monotherapy and in combination with CPI
- Durable Objective Responses in CPI-experienced patients with evaluable disease at baseline
 - ORR 35% for combination therapy (BNT111 + anti-PD1): 6/17 patients
- High-magnitude and persistent CD4+ and CD8+ T cell responses



BNT111: FixVac Phase 2 Clinical Trial in anti-PD1 R/R Melanoma Patients



Open-label, randomized Phase 2 trial with BNT111 and cemiplimab in combination or as single agents

- Collaboration with Regeneron

Primary EP

- Arm 1: ORR by RECIST 1.1

Secondary EP

- ORR (key secondary endpoint arms 2, 3)
DOR, DCR, TTR, PFS, by RECIST 1.1
- OS, safety, tolerability, PRO

- main treatment arm
- calibrator arm

BNT211: Next Generation CAR-T Targeting CLDN6 with CARVac

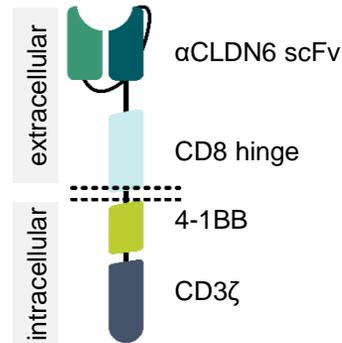
CANCER IMMUNOTHERAPY

An RNA vaccine drives expansion and efficacy of claudin-CAR-T cells against solid tumors

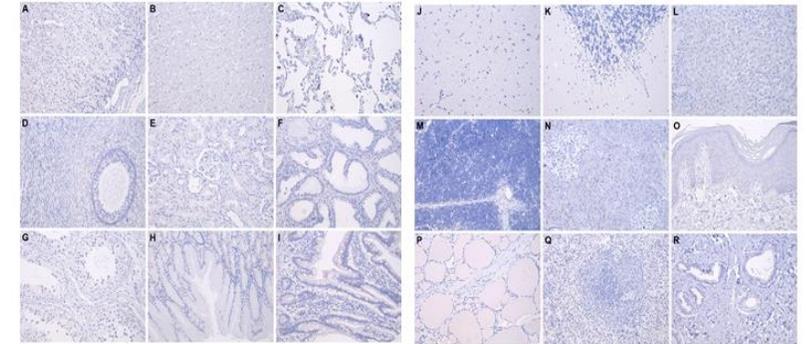
Katharina Reinhard^{1*}, Benjamin Rengstl^{1,2*}, Petra Oehm^{1,2*}, Kristina Michel¹, Arne Billmeier¹, Nina Hayduk¹, Oliver Klein¹, Kathrin Kuna¹, Yasmina Ouchan¹, Stefan Wöhl¹, Elmar Christ¹, David Weber², Martin Suchan², Thomas Bukur², Matthias Birtel¹, Veronika Jahndel¹, Karolina Mroz¹, Kathleen Hobohm¹, Lena Kranz¹, Mustafa Diken², Klaus Kühlcke¹, Özlem Türeci^{1,†}, Ugur Sahin^{1,2,3,†,‡}

Science

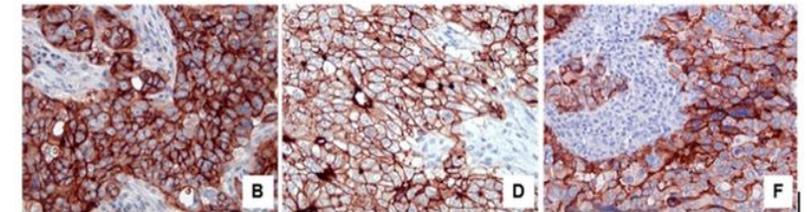
BNT211 CAR Structure



CLDN6 not present in healthy tissues



CLDN6 expressed in multiple cancers



Ovarian

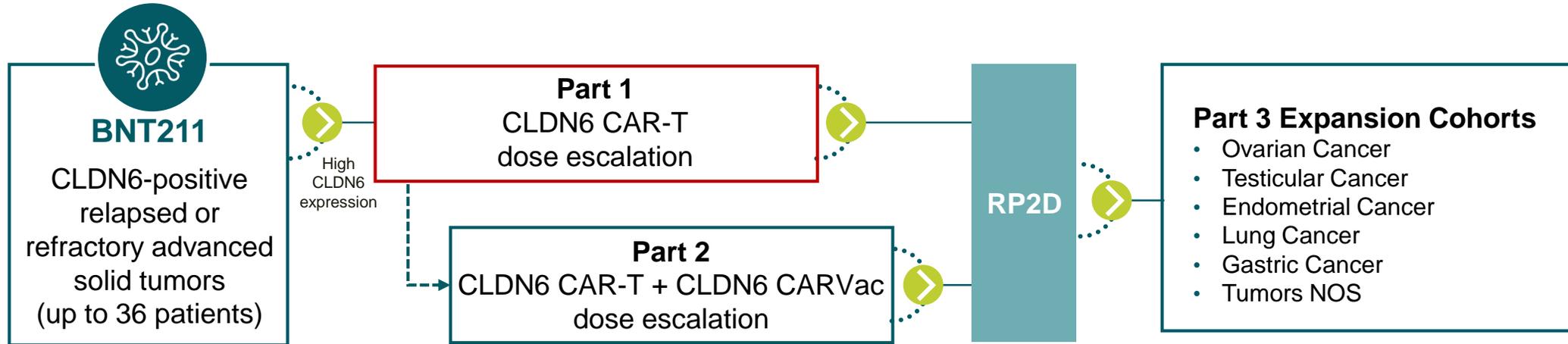
Testicular

Lung

CAR-T cell therapy + RNA Vaccine to amplify CAR-T cell *in vivo*

- New 2nd generation CAR directed against CLDN6, a new highly cancer cell specific carcino-embryonic antigen
- CLDN6 is expressed in multiple solid cancers with high medical need tumor types
- CARVac drives *in vivo* expansion, persistence and efficacy of CAR-T

BNT211: Next Generation CAR-T Therapy in Solid Tumors



An open-label Phase 1/2a study of BNT211 in patients with advanced solid tumors

- Evaluation of safety and tolerability
- Ongoing Phase 1/2a study
- Monotherapy dose level 1 completed (3 patients)

BNT211: CAR-T Engraftment and Stable Disease in First 2 Patients

Patient #	1	2	3
Age, gender	68 y, female	25 y, male	33 y, male
Tumor entity	Ovarian CA	Sarcoma	Testicular CA
CLDN6 II/III+	60%	80%	60%
Stage	FIGO IIIc	unknown	IIIc
Prior treatment lines	5	3	4
CAR-T infusion	FEB2021	MAR2021	MAR2021
DLTs	0	0	0
AEs ≥ grade 3*	0	0	0
CAR-T engraftment	9x (days 3-17)	>700x (days 3-24)	90x (days 3-10)

First dose level was well tolerated

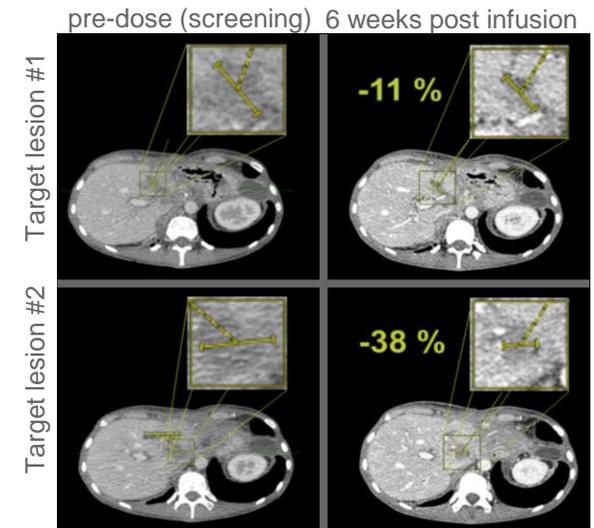
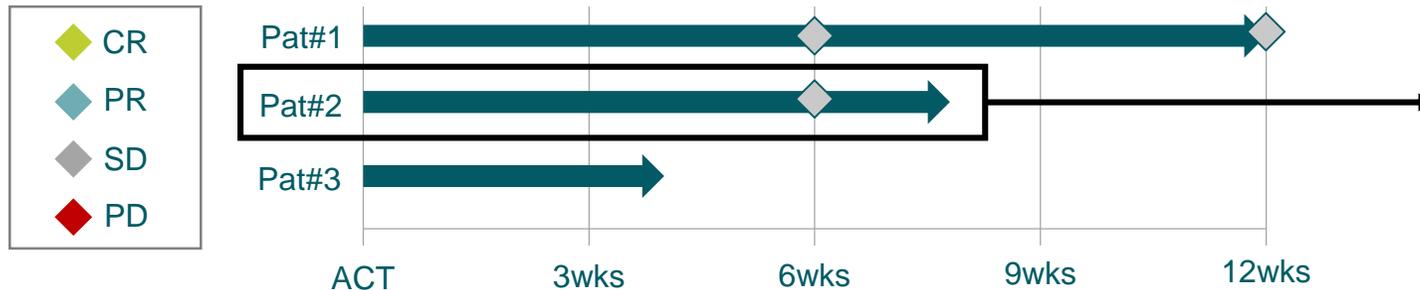
- AEs Mild to Moderate & Transient
 - No AEs ≥ grade 3 and no DLTs

CAR-T detectable across different tumor types

- Robust engraftment in all patients,
 - Follow-up days 3-24 for patient #1 and #2, and days 3-10 for patient #3 post CAR-T cell transfer

Tumor Reduction in Patient #2:

- 19.7% shrinkage of tumor (RECIST 1.1)



DLT, dose limiting toxicity; Pat, patient; CR, complete response; PR, partial response; SD, stable disease; PD, progressive disease;

20 LD, lymphodepletion; FIGO, International Federation of Gynecology and Obstetrics; CLDN6, Claudin-6; AE, adverse event; CAR-T, chimeric antigen receptor engineered T cells

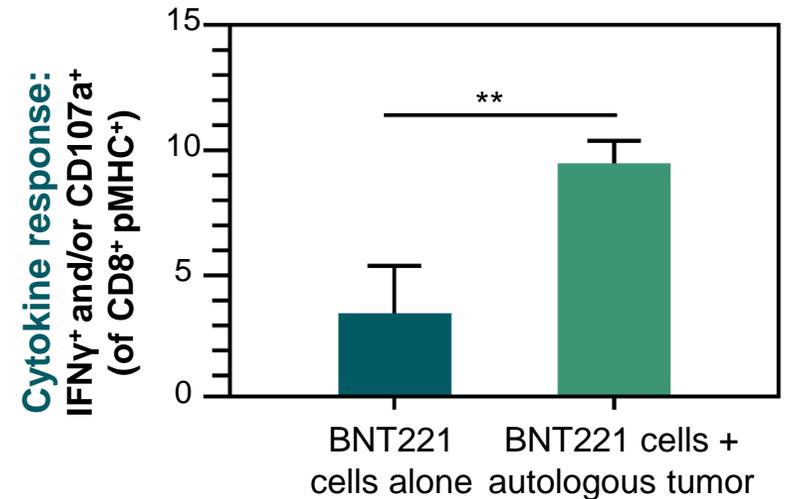
* Suspected to be related to drug product

BNT221: NEO-STIM[®] Personalized Neoantigen-Targeted Adoptive Cell Therapy

Addresses limitations of TIL cell therapy approaches

- T cells induced from peripheral blood (NEO-STIM)
 - No gene engineering or viral vectors
- Targets each patient's personal tumor neoantigens
- Multiple specific CD8+ and CD4+ T cell populations that are functional and have a favorable phenotype
- First patient dosed in Phase 1 trial in anti-PD-1 experienced unresectable stage III or IV melanoma

BNT221 cells specifically recognize autologous tumor



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2021 Highlights

COVID-19
Vaccine Update

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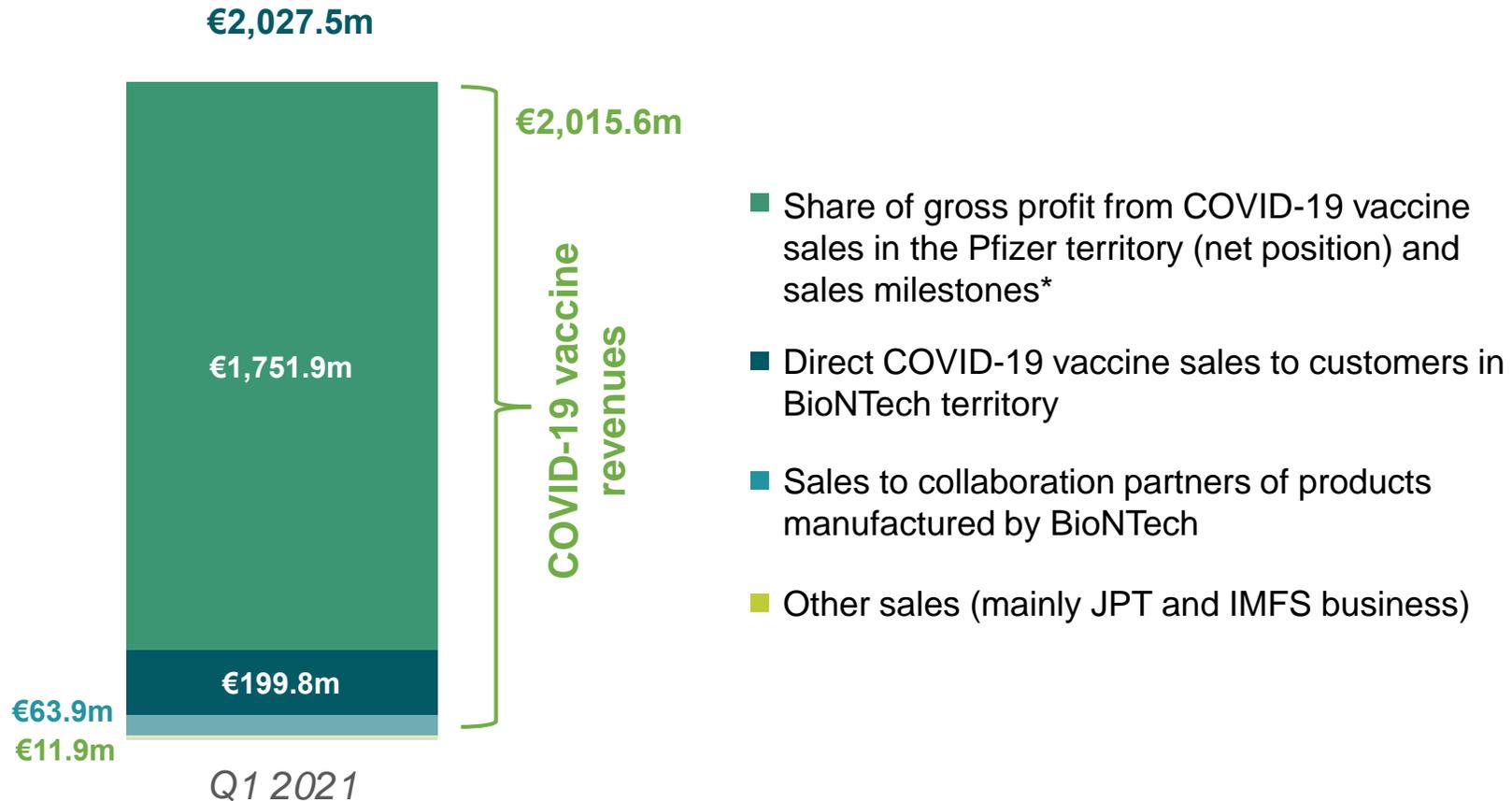
Corporate
Update &
Outlook

First Quarter 2021 Financial Results (unaudited) – Profit or Loss

<i>(in millions, except per share data)*</i>	Three months ended March 31	
	2021	2020
<ul style="list-style-type: none"> • Research & development revenues • Commercial revenues 	€20.9 2,027.5	€21.2 6.5
Total revenues	€2,048.4	€27.7
<ul style="list-style-type: none"> • Cost of sales • Research and development expenses • Sales and marketing expenses • General and administrative expenses • Other operating income less expenses 	(233.1) (216.2) (8.7) (38.9) 110.7	(5.9) (65.1) (0.5) (15.8) 0.3
Operating profit / (loss)	€1,662.2	€(59.3)
<ul style="list-style-type: none"> • Finance income less expenses • Income taxes 	(19.9) (514.2)	5.9 -
Profit / (loss) for the period	€1,128.1	€(53.4)
Earnings per share		
<ul style="list-style-type: none"> • Basic profit / (loss) for the period per share • Diluted profit / (loss) for the period per share 	€4.64 €4.39	€(0.24) €(0.24)

First Quarter 2021 COVID-19 Vaccine Deliveries Drove Revenue Growth

Commercial revenues – identified revenue streams



- Share of gross profit from COVID-19 vaccine sales in the Pfizer territory (net position) and sales milestones*
- Direct COVID-19 vaccine sales to customers in BioNTech territory
- Sales to collaboration partners of products manufactured by BioNTech
- Other sales (mainly JPT and IMFS business)

On Track with Previously Stated Financial Outlook

Update on Current Signed COVID-19 Vaccine Order Book

- Estimated COVID-19 vaccine revenues to BioNTech upon delivery of signed supply contracts as of May 4, 2021 (~1.8 billion doses): ~€12.4 billion

Planned Full Year 2021 Expenses and Capex

- R&D expenses: **€750 million – €850 million**
- SG&A expenses: **Up to €200 million**
- Capital expenditures: **€175 million – €225 million**
- *Ranges reflect current base case projections*
- *Ramp-up of R&D investment in 2H 2021 and beyond planned to broaden and accelerate pipeline development*

Estimated Full Year 2021 Tax Assumptions

- German corporate tax rate: **~31%**

Agenda

First Quarter
2021 Highlights

COVID-19
Vaccine Update

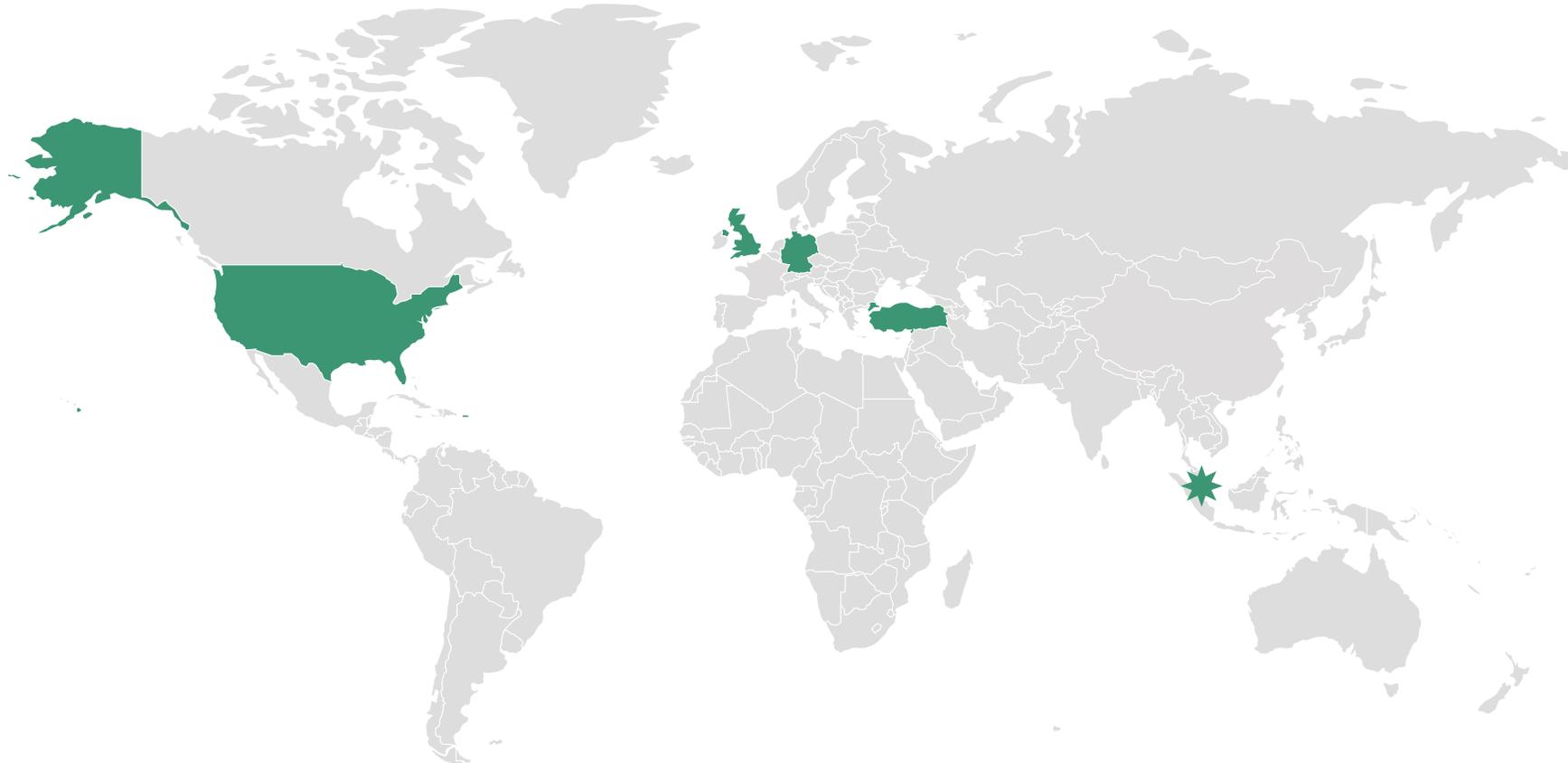
Oncology
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Increasing Our Global Footprint

- First location in Asia: regional headquarters in Singapore to house mRNA manufacturing facility with support from Singapore Economic Development Board
- Growing international workforce with teams in United States, an affiliate in Turkey and commercial organization, including salesforce, in Germany



Significant Pipeline Milestones expected in 2021

5+ Trial Updates



- **BNT162b2:** Multiple updates
- **BNT311:** Bi-specific CPI: PD-L1 x 4-1bb in solid tumors
- **BNT312:** Bi-specific checkpoint immunomodulator CD40 x 4-1bb in solid tumors
- **BNT211:** CLDN-6 CAR-T + CARVac in solid tumors
- **BNT411:** TLR-7 agonist +/- CPI in solid tumors

3 Randomized Phase 2 Trial Starts



- **BNT111:** FixVac + CPI in refractory melanoma
- **BNT113:** FixVac HPV16+ + CPI in 1L HNSCC
- **BNT122:** iNeST (autogene cevumeran) + CPI in adjuvant mCRC

7 First-in-human Phase 1 Trial Starts



- ✓ **BNT211:** CLDN-6 CAR-T + CARVac in solid tumors
- ✓ **BNT151:** Ribocytokine (modified IL-2)
- ✓ **BNT221:** NEOSTIM individualized neoantigen-T cell therapy in melanoma
- **BNT152+153:** RiboCytokine IL-2 / IL-7 combo in solid tumors
- **BNT141:** RiboMab (undisclosed)
- **BNT142:** RiboMab bi-specific CPI in solid tumors (CD3xCLDN6)
- **BNT161:** Influenza vaccine

Strong Financial Position, Fully-Integrated Structure Enable Execution on Strategic Priorities for 2021

Vaccine revenue provides significant working capital to build long-term value for patients, shareholders and society



- **Continue to execute while driving iterative innovation against COVID-19**
 - Deliver COVID-19 vaccine to >1 billion people globally



- **Broaden and diversify early- and late-stage pipeline of next generation immunotherapies**
 - Accelerate pipeline in core therapeutic areas
 - Immuno-oncology: Usher in new era of individualized cancer medicine and *in vivo* cell therapy
 - Infectious disease: Advance mRNA vaccines and therapeutics to address infectious diseases beyond COVID-19
 - Further optimize platforms and initiate early product development in emerging areas
- **Increase global footprint and expand integrated infrastructure**

The Biontech logo is displayed in a bold, sans-serif font. The letters 'B', 'I', 'O', 'N', 'T', 'E', and 'C' are in a light blue color, while the letters 'H' and 'H' are in a yellow color. The logo is positioned on the left side of the slide.

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