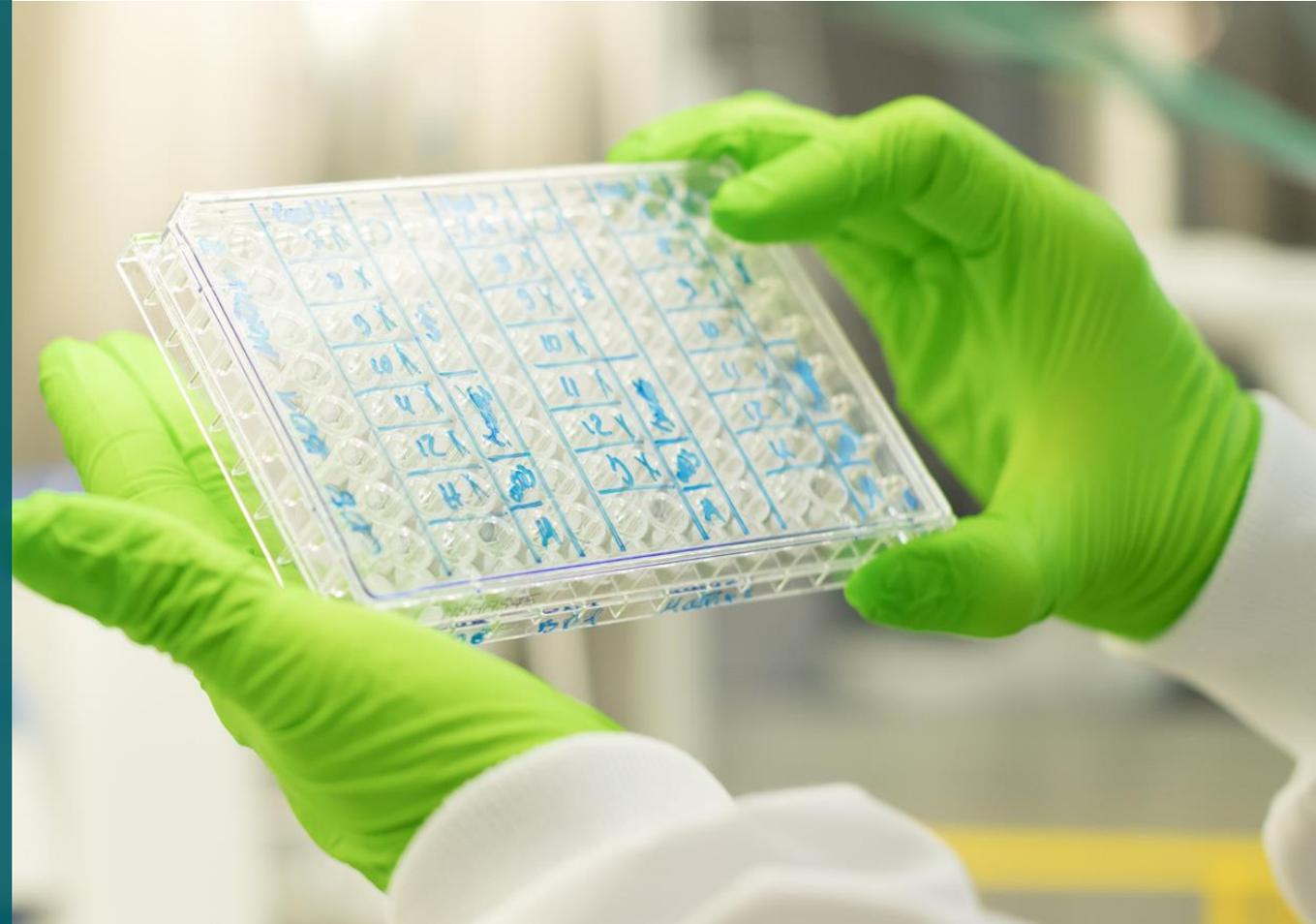


Harnessing the full potential of the immune system to solve global health problems

Fourth Quarter and Full Year 2020

Corporate update and
financial results

March 30, 2021



BIONTECH

This slide presentation includes forward-looking statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including BioNTech's expected revenues and net profit related to sales of BioNTech and Pfizer's COVID-19 vaccine, referred to as COMIRNATY® in the European Union as authorized for use under conditional marketing approval, in territories controlled by BioNTech's collaboration partners, particularly those such figures that are derived from preliminary estimates provided by BioNTech's partners; the extent to which a COVID-19 vaccine continues to be necessary in the future; 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 pricing and reimbursement of BioNTech and Pfizer's COVID-19 vaccine and BioNTech's investigational medicines, if approved; the rate and degree of market acceptance of BioNTech and Pfizer's COVID-19 vaccine and BioNTech's investigational medicines, if approved; the initiation, timing, progress, results, and cost of BioNTech's research and development programs 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, the period during which the results of the trials will become available and BioNTech's research and development programs; the timing of and BioNTech's ability to obtain and maintain regulatory approval for BioNTech's product candidates; 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 personal injury or death arising from the use of BioNTech and Pfizer's COVID-19 vaccine, and other products and product candidates developed or manufactured by BioNTech; BioNTech's estimates of its expenses, ongoing losses, future revenue and capital requirements and BioNTech's needs for or ability to obtain additional financing; the development of and projections relating to BioNTech's competitors or its industry; BioNTech's ability to effectively scale its production capabilities and manufacture its products, including BioNTech and Pfizer's COVID-19 vaccine, and BioNTech's product candidates; BioNTech's projected net sales for the COVID-19 vaccine in 2021; BioNTech's projected gross margins, expenses and expenditures and tax rate for 2021; BioNTech's target vaccine production for 2021; and 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. 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 press release 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 BioNTech's Annual Report on Form 20-F filed with the US Securities and Exchange Commission (SEC) on March 31, 2020 and in subsequent filings made by BioNTech with the SEC, including the third quarter report, 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 press release 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

Full Year 2020 Highlights



COVID-19 Vaccine Update

Oncology Pipeline Update

Financial Results

Strategic Outlook



**2020:
A momentous year
for BioNTech**

**First commercial
product**

BioNTech's capabilities were transformed in 2020

First Product Launch



**BNT162b2
launched globally**

*Authorized for use in **>65** countries
with **>200M** doses delivered**

Commercial



**Established first
sales force**

*Successful commercial launch in
Germany with BioNTech sales team*

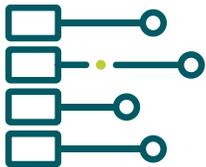
Manufacturing



**Acquired
commercial-scale
GMP facility**

*Own mRNA manufacturing network with
up to **1 billion dose** annual capacity*

Broadened Pipeline



**Broadened clinical-
stage pipeline to 14
ongoing clinical trials**

***13 clinical stage** product candidates
across **4 drug classes***

Product Opportunities



**Advancing product
opportunities in
oncology**

***3 cancer immunotherapies** to enter trials
with registrational potential in 2021*

Global Footprint



Grew to **>1,900
employees with
>600 in R&D**

*Expanded sites in Germany and
established U.S. HQ in Cambridge, MA
via acquisition of Neon Therapeutics*

What 2020 has demonstrated to us

Our mRNA technology has the potential to address major global health challenges:

The success of “first-generation” mRNA vaccines against COVID-19 highlights their future promise – we expect rapid iterations to further improve this new class of products. We have established a broad toolbox of mRNA technologies that underpin a diverse range of mRNA platforms.

BioNTech is well-placed to lead at the intersection of mRNA and immunology:

We own a vast IP portfolio and have more than a decade of accumulated know-how in the field. We plan to increase investment in our technology platforms to accelerate our platform and pipeline and stay at the forefront of the field.

Drug development can be faster:

While COVID-19 was an extraordinary case, we intend to apply the capabilities we have developed during “Project Lightspeed” to rapidly advance other innovative medicines to the market.

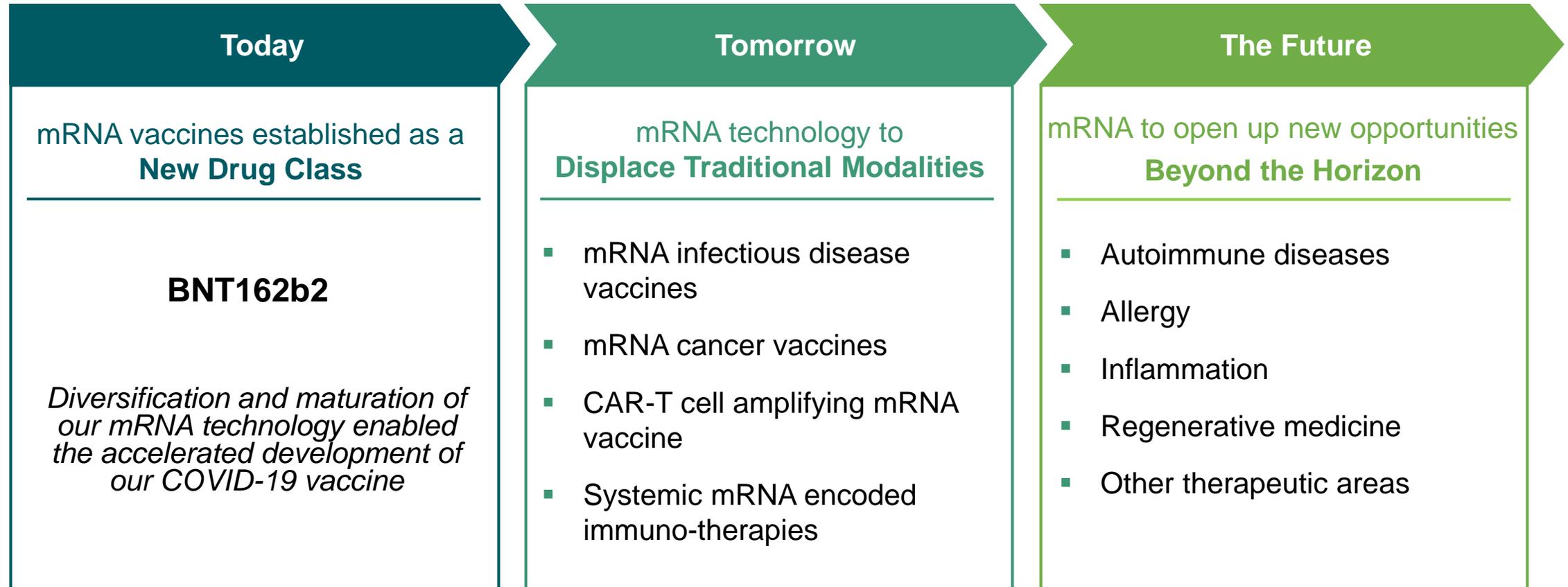
Our model is powerful:

Our deep focus on innovation, coupled with powerful blue chip collaborators, gives us the ability to establish market-leading positions while building our own capabilities alongside our partners over the long-term.

The Opportunity Ahead



We aim to fully exploit and industrialize the potential of our mRNA technology



uRNA

modRNA

saRNA

taRNA

**Broad IP portfolio covering technologies, targets and formulations.
Deep expertise and know-how built over the course of more than a decade.**

Agenda

Full Year 2020 Highlights

COVID-19 Vaccine Update



Oncology Pipeline Update

Financial Results

Strategic Outlook

Strong clinical results



Clinical profile

- 95% effective against symptomatic COVID-19 infections¹
- 94% efficacy in participants >65 years
- Well tolerated safety profile
- High titers of neutralizing antibodies
- Robust and poly-epitopic CD8+ and Th1 CD4+ T-cell responses²



Compelling real-world evidence



**Real-world data from
observational study
conducted by
Israel Ministry of Health**

Two weeks post-dose 2

- About 97% effective in preventing
 - symptomatic COVID-19
 - severe/critical COVID 19
 - Hospitalizations
 - Deaths
- 94% effective against asymptomatic infection
- Protective against B.1.1.7 variant



COVID-19 will likely become endemic. Re-vaccination may also be required.

Observation

Implication

1 Waning immune responses

Re-boostings may be required

2 Variants are driving new infections

Variant-specific vaccines may be needed

3 New mRNA vaccines can be rapidly designed and produced at scale

mRNA vaccines are well suited for long-term challenge

Focused on six key levers to expand COVID-19 vaccine reach

Increased manufacturing capacity

- Up to 2.5 billion doses by end of 2021
- Continuous process improvements, expansion of supplier and CMO network

Additional populations

- Global Phase 2/3 trial in healthy pregnant women ≥ 18 years of age ongoing
- Data in children 12-15 years of age to regulatory authorities in Q2
- Study in children 6 months to 11 years of age started

Additional geographies

- Approved in more than 65 countries
- Japan's Health Ministry approved BNT162b2
- Submission to regulatory authorities in Mainland China in process

Broadened & decentralized vaccine access

- U.S. FDA and EMA updated label with 2-week storage and transport at -25°C to -15°C
- Stability optimized, ready-to-use and lyophilized formulations expected in 2021
- BLA submission expected in United States in Q2

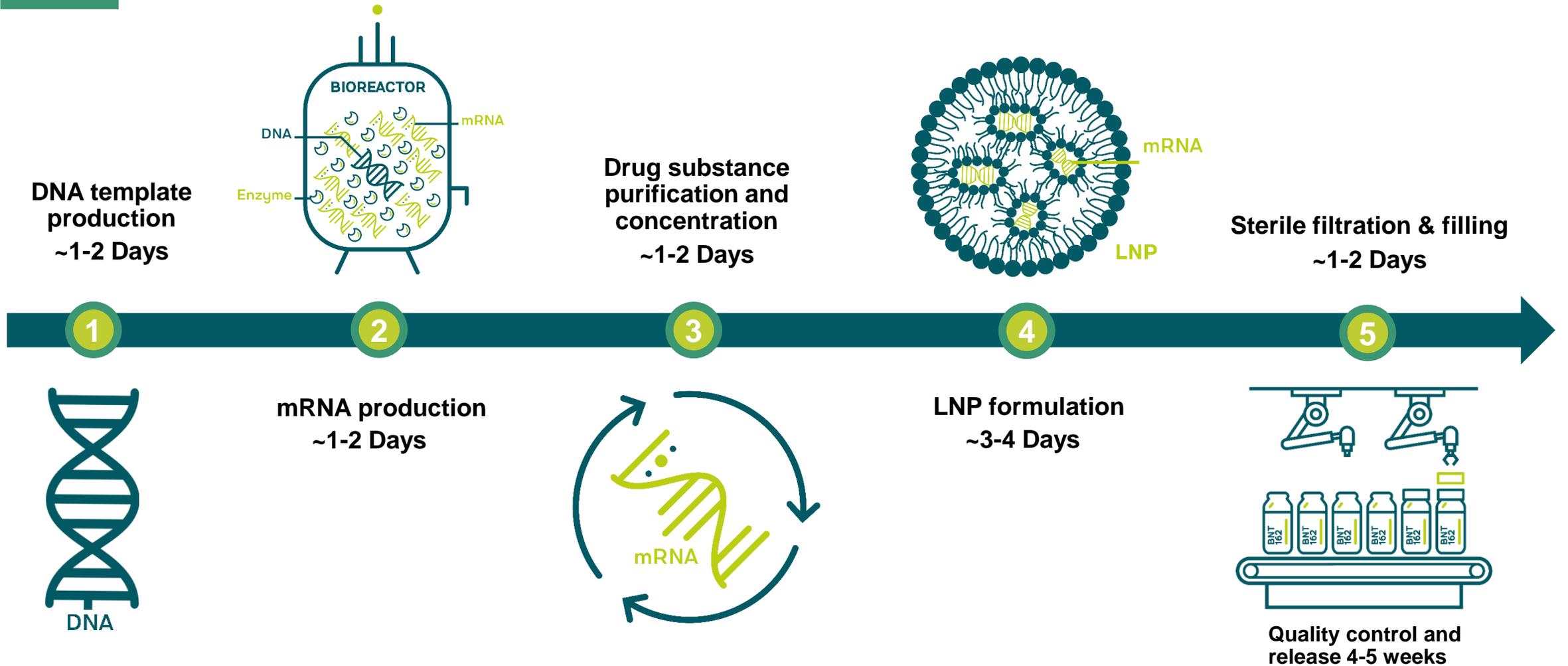
Addressing SARS-CoV-2 variants

- Initiated variant-specific registration-enabling trial
- Additional variant-specific trials expected to be initiated in Q2

Addressing waning immune responses

- Initiated trial to evaluate effect of third dose of BNT162b2 at 6 to 12 months post-dose 2

Flexible manufacturing allows rapid adaptation to variants

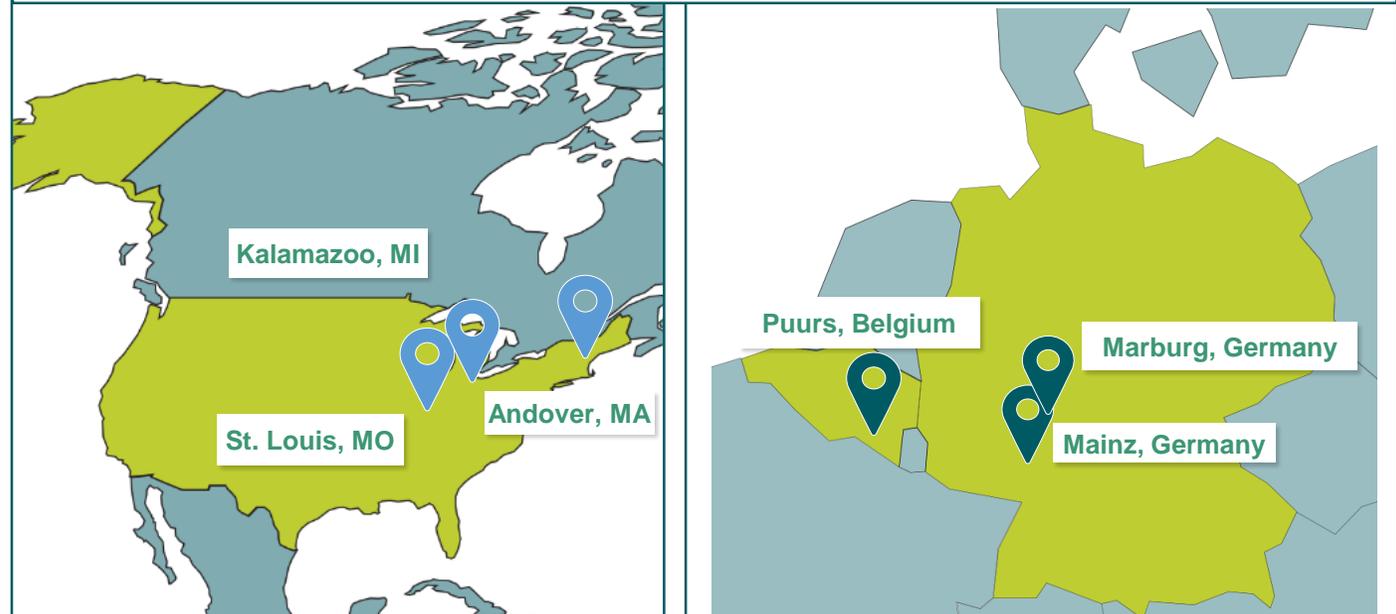


Scaling up manufacturing capacity to address pandemic demand

1.4 billion doses contracted to date
for 2021

Selected Regions	Current Orders
EU	500M confirmed 100M option
US	300M
Japan	144M
UK	30M
Other	~450M
Ongoing discussions for additional doses in 2021/2022	

Up to 2.5 billion doses* manufacturing capacity



Marburg facility

- Up to 1 billion doses in annual run-rate capacity
- First vaccines scheduled for distribution in April

Agenda

Full Year 2020 Highlights

COVID-19 Vaccine Update

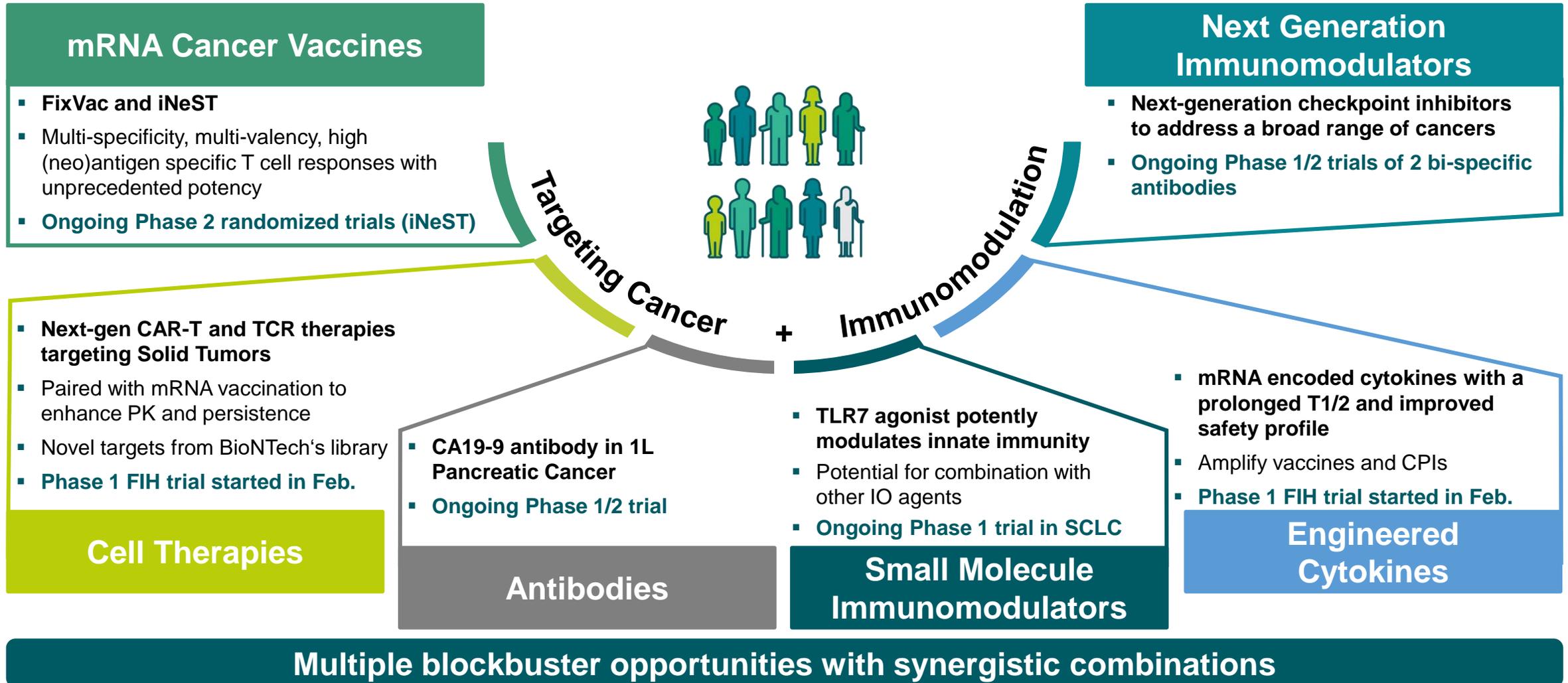
Oncology Pipeline Update



Financial Results

Strategic Outlook

Rationally designed multi-platform immuno-oncology strategy

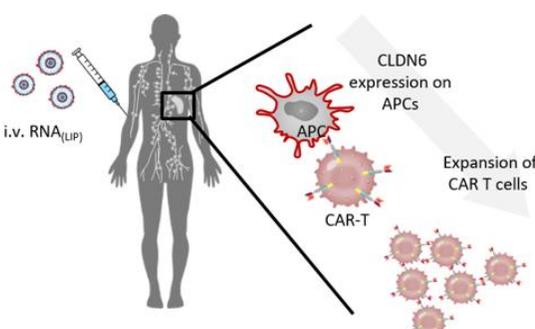
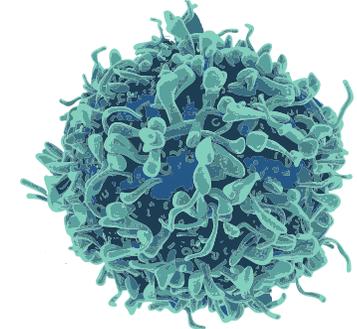
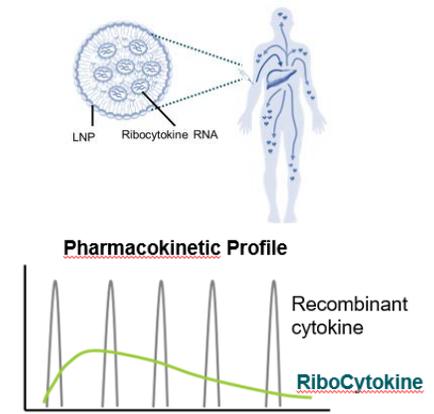
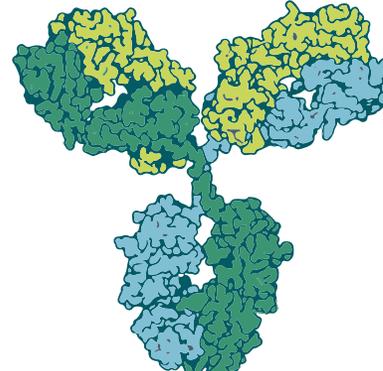


Multiple oncology trials with registrational potential starting in 2021

Plan to initiate randomized Phase 2 trials for 3 programs

Most 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 1H 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 BNT312: Data update in 2H 2021
		GEN1042 (BNT312)	solid tumors (CD40×4-1BB)				

Next wave oncology advancing innovation beyond current boundaries

<p>CARVac <i>CAR-T cell amplifying mRNA therapy for solid tumors¹</i></p>	<p>NEOSTIM T cell therapy <i>Individualized Neoantigen specific T cell therapy</i></p>	<p>RiboCytokines <i>mRNA encoded Cytokines</i></p>	<p>RiboMabs² <i>mRNA encoded Antibodies</i></p>
			
<ul style="list-style-type: none"> ▪ BNT211 (CLDN 6 CAR) Next generation CAR-T targeting CLDN6 with CARVac “primer” 	<ul style="list-style-type: none"> ▪ BNT221 (PBMC derived ex vivo T cell therapy) 	<ul style="list-style-type: none"> ▪ BNT151 (modified IL-2) ▪ BNT152 + BNT153 (IL-2/IL-7) 	<ul style="list-style-type: none"> ▪ BNT141 (undisclosed) ▪ BNT142 (CD3xCLDN6)
<p>Wholly owned: ✓</p>	<p>✓</p>	<p>✓</p>	<p>✓</p>
<p>FIH start: FPD Feb. 2021</p>	<p>1H 2021</p>	<p>FPD Feb. 2021</p>	<p>2H 2021</p>

BNT211: CLDN6-CAR demonstrates potent and robust target recognition

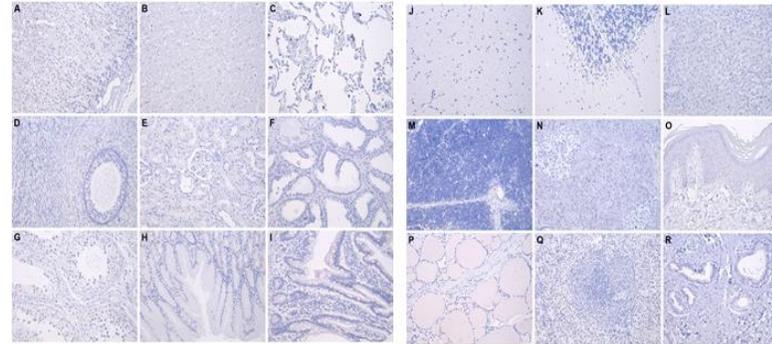
CANCER IMMUNOTHERAPY

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

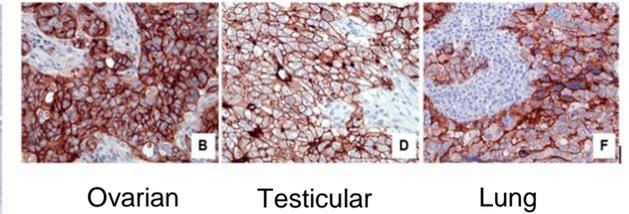
Katharina Reinhard^{1*}, Benjamin Rengstl^{1*}, Petra Oehm^{1*}, Kristina Michel¹, Arne Billmeier¹, Nina Hayduk¹, Oliver Klein¹, Kathrin Kuna², Yasmina Ouchan¹, Stefan Wöll¹, Elmar Christ¹, David Weber², Martin Suchan², Thomas Bukur², Matthias Birtel¹, Veronika Jahndel¹, Karolina Mroz¹, Kathleen Hobohm¹, Lena Kranz¹, Mustafa Diken², Klaus Kühlcke¹, Özlem Türeci^{1,†}, Ugur Sahin^{1,2,3,†,‡}

Science

CLDN6 not present in healthy tissues

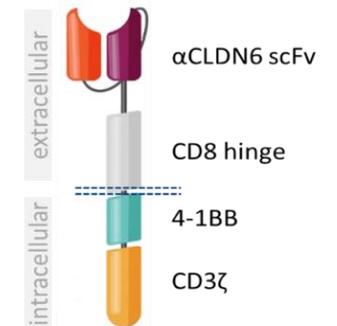


CLDN6 expressed in multiple cancers



- Directed against new carcino-embryonic antigen CLDN6
- 2nd generation CAR functionalized with antibody-derived CLDN6-binding domain (α CLDN6-scFv)
- Binding domain mediates exclusive specificity and high sensitivity for CLDN6
- Costimulatory domain (4-1BB) mediates prolonged survival and repetitive killing ability
- CLDN6-CAR showed strong recognition and lysis of CLDN6-positive target cells in preclinical studies

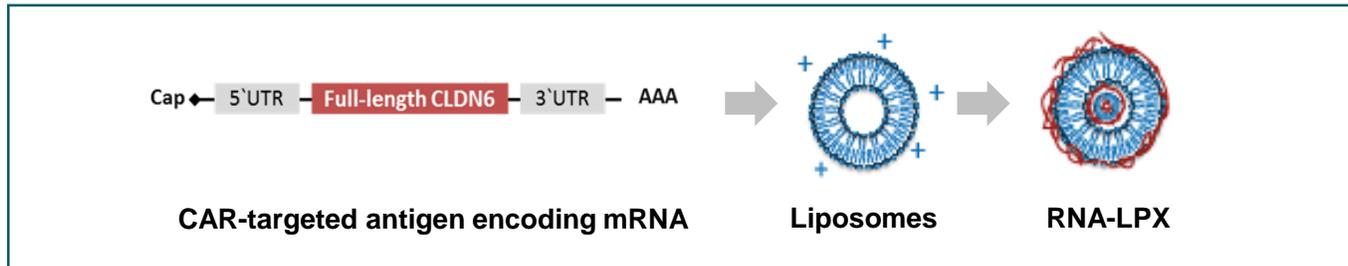
BNT211 CAR Structure



BNT211: Repeated CARVac dosing enables tunable expansion of CAR-T cells

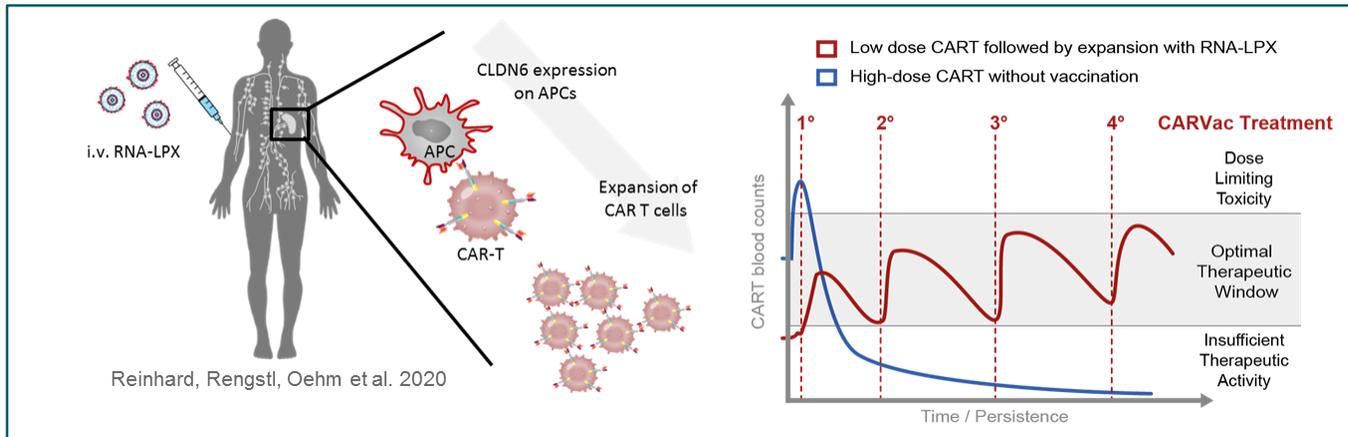
CAR-T cell Amplifying RNA Vaccine (CARVac) drives in vivo expansion and efficacy of CAR-T against solid tumors

CARVac production



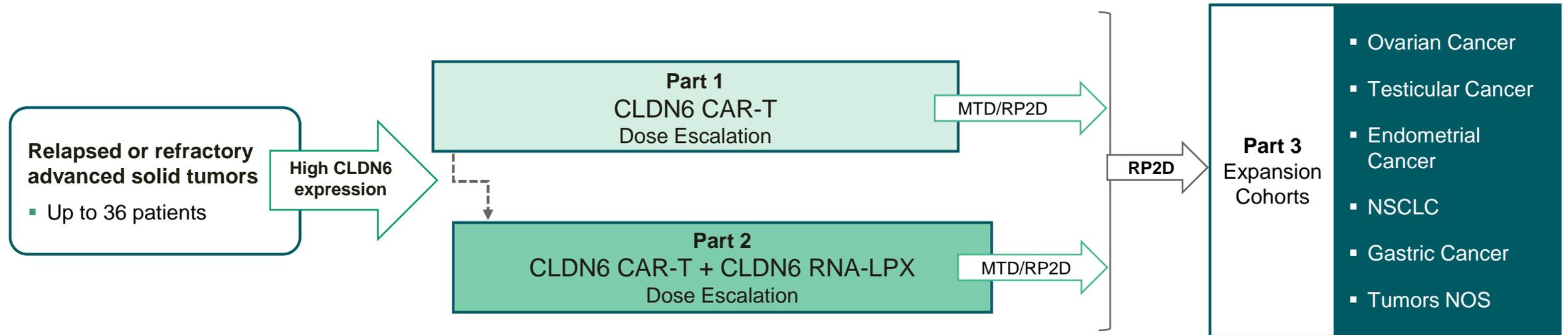
- CARVac is based on RNA-LPX that selectively targets secondary lymphoid organs
- I.V. administration of CLDN6 RNA-LPX results in **expression of CAR antigen on APCs**

CARVac based CAR-T expansion



- Repetitive administration of CARVac results in **increased frequency, persistence and activity of CAR-T cells** with a memory phenotype
- Combination of sub-therapeutic CAR-T dose and CARVac demonstrated **eradication of advanced tumors in mice**

BNT211: First-in-human CARVac trial with first data expected this year

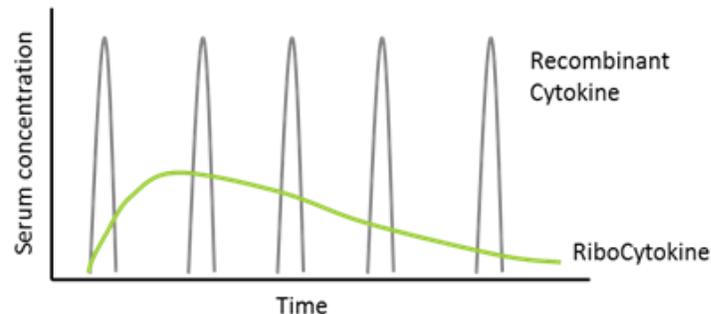


- Phase 1/2a: Evaluation of safety and tolerability of CLDN6 CAR-T +/- CLDN6 RNA-LPX in patients with CLDN6-positive relapsed or refractory advanced solid tumors
- 3+3 dose escalation with bifurcated trial design

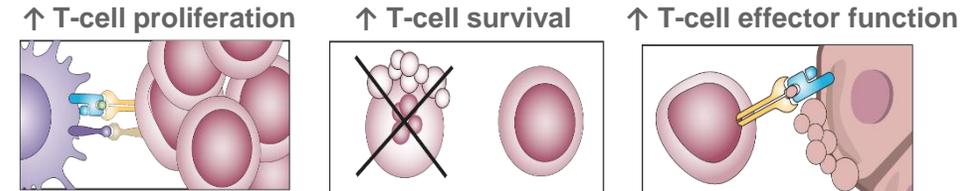
BNT151: Designed to overcome limitations of recombinant cytokine therapy

RiboCytokines: A novel therapeutic concept

- Cytokines encoded by mRNA and produced in patient
- Major improvements over recombinant cytokine therapies
 - Prolonged serum half-life
 - High bioavailability
 - Lower and less frequent dosing
 - Lower Toxicity
 - Sequence modifications easy to introduce

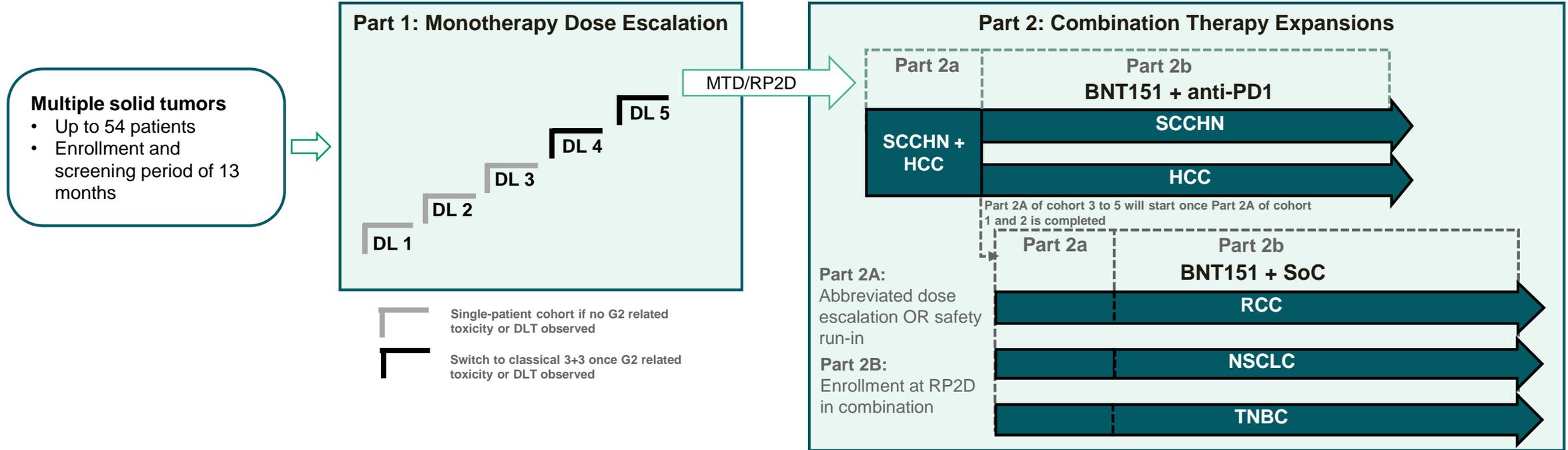


BNT151: Optimized mRNA-encoded IL-2



- **BNT151** is nucleoside-modified mRNA encoding human **IL-2 variant fused to human albumin**
- **IL-2 is a key cytokine** in T cell immunity, supporting differentiation, proliferation, survival and effector functions of T cells
- **BNT151 stimulates anti-tumoral T cells without extensively triggering immunosuppressive T_{regs}**
- **First patient dosed** in first-in-human Phase 1/2a Trial

BNT151-01 Open-label, multicenter Phase 1/2a, first-in-human trial



Evaluation of dose escalation, safety, pharmacokinetics and pharmacodynamics of BNT151 with expansion cohorts in multiple solid tumor indications

Agenda

Full Year 2020 Highlights

COVID-19 Vaccine Update

Oncology Pipeline Update

Financial Results



Strategic Outlook

2020 Full Year Financial Results – Statement of Operations

<i>(in millions)*</i>	Three months ended December 31,		Years ended December 31,	
	2020	2019	2020	2019
Research & development revenues	€ 65.4	€ 20.2	€ 178.8	€ 84.4
Commercial revenues	€ 280.0	€ 7.8	€ 303.5	€ 24.2
Total revenues	€ 345.4	€ 28.0	€ 482.3	€ 108.6
Cost of sales	(41.0)	(4.4)	(59.3)	(17.4)
Research and development expenses	(257.0)	(65.4)	(645.0)	(226.5)
Sales and marketing expenses	(6.7)	(0.8)	(14.5)	(2.7)
General and administrative expenses	(36.1)	(11.1)	(94.0)	(45.5)
Other operating income less expenses	239.6	0.8	248.1	2.0
Operating profit / (loss)	€ 244.2	€ (52.9)	€ (82.4)	€ (181.5)
Finance income less expenses	(38.6)	(5.6)	(63.4)	2.0
Income taxes	161.3	0.3	161.0	0.3
Profit / (loss) for the period	€ 366.9	€ (58.2)	€ 15.2	€ (179.2)

2020 COVID-19 vaccine deliveries drove revenue growth

Commercial revenues – newly identified revenue streams



2021 Financial Outlook

Update on Current Signed COVID-19 Vaccine Order Book

- Estimated COVID-19 vaccine revenues to BioNTech upon delivery of currently signed orders (~1.4 billion doses): ~€9.8 billion
 - Estimate reflects:
 - Expected revenues from direct COVID-19 vaccine sales to customers in our territories
 - Expected revenues from sales to our collaboration partners
 - Expected sales milestone payments from our collaboration partners
 - Expected revenues related to our share of gross profit from COVID-19 vaccine sales in the collaboration partners' territories
- Additional revenues related to further supply contracts for deliveries in 2021 expected
- Full year 2021 manufacturing capacity target raised from 2.0 to 2.5 billion doses to be able to address increased demand

2021 Financial Outlook

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%**
- Accumulated tax loss carryforwards as of December 31, 2020: **~€450 million***

Agenda

Full Year 2020 Highlights

COVID-19 Vaccine Update

Oncology Pipeline Update

Financial Results

Strategic Outlook



Our strategic priorities for 2021

1

Accelerate and expand innovative pipeline

Launch multiple new products in the next 5 years

Build a 21st century global immunotherapy powerhouse

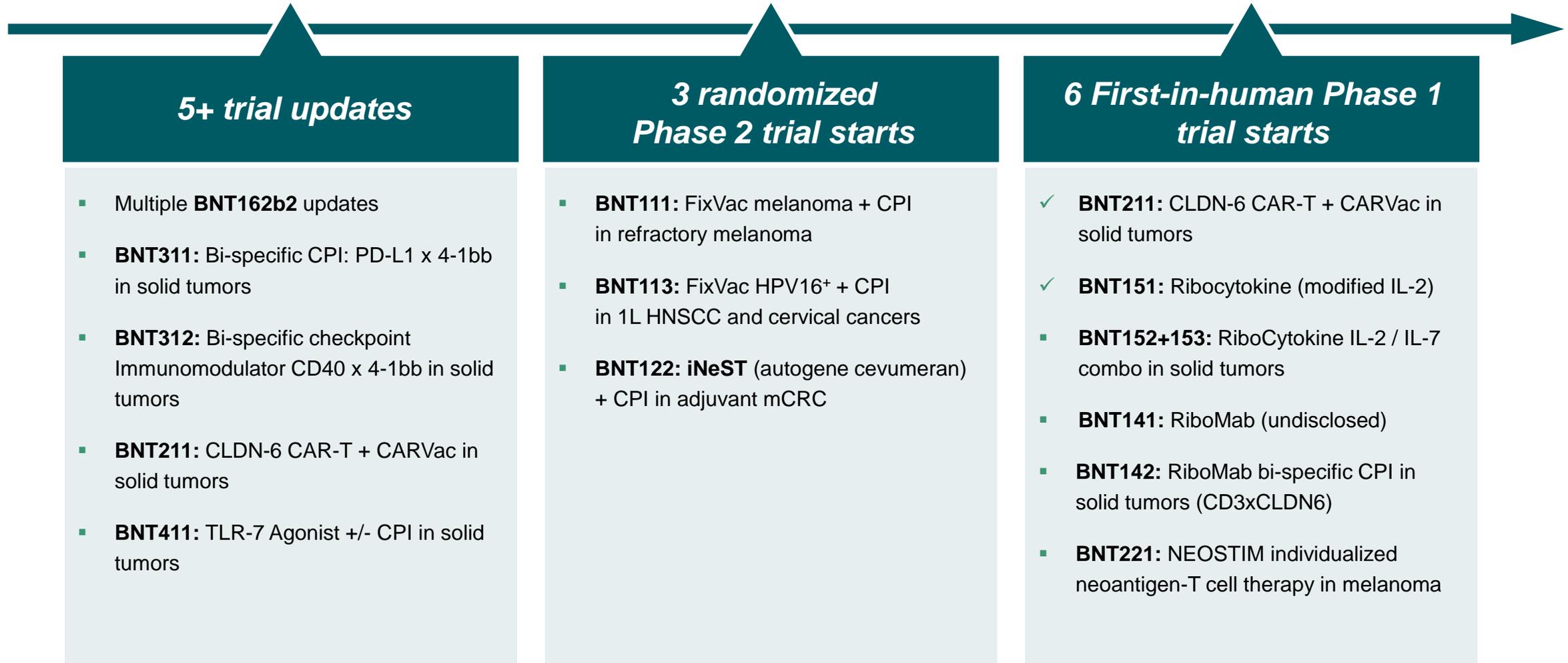
Continue to execute while driving iterative innovation against COVID-19

- Execute against our goal to deliver our COVID-19 vaccine to more than 1 billion people in 2021
- Continue to innovate to build sustained global market leadership position

Broaden and diversify early- and late-stage pipeline of next generation immunotherapies

- **Accelerate pipeline in core therapeutic areas:**
 - Infectious Disease: *Advance mRNA vaccines to address many infectious diseases*
 - Immuno-oncology: *Usher in new era of individualized cancer medicine and cell therapy*
- **Further optimize platforms and initiate early product development in emerging areas:**
 - Autoimmunity and Inflammatory Diseases
 - Regenerative Medicine

Expected pipeline milestones in 2021

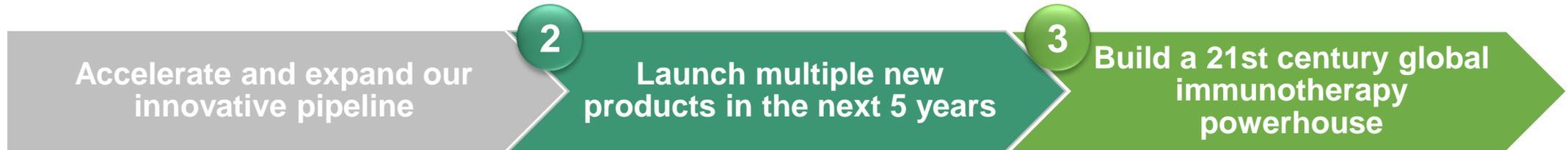


COMING SOON

BioNTech Capital Markets Day

SECOND HALF 2021

Better positioned than ever to bring innovation to patients



Re-invest BNT162b2 proceeds to build long-term value for Patients, Shareholders, and Society

Expand global footprint in the U.S., Europe, and Asia

- Establish new offices in strategic locations globally

Expand clinical, commercial and manufacturing infrastructure to support future product launches

- Invest in digital infrastructure and capabilities

Ramp up our investment in innovation

- Complement internal R&D with external innovation

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 in the upper left quadrant of the page.

BIONTECH

An der Goldgrube 12
55131 Mainz
Germany

M: investors@biontech.de