UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

FOR THE MONTH OF JANUARY 2020 COMMISSION FILE NUMBER 001-39081

BioNTech SE

(Translation of registrant's name into English)

An der Goldgrube 12 D-55131 Mainz Germany +49 6131-9084-0 (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F: Form 20-F \boxtimes Form 40-F \square Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \square Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \square

EXHIBITS

<u>Exhibit</u> <u>Description of Exhibit</u>

99.1 Presentation: J.P. Morgan Healthcare Conference January 2020 Ugur Sahin, MD CEO and Co-Founder.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BioNTech SE

By:

/s/ Dr. Sierk Poetting Name: Dr. Sierk Poetting Title: Chief Financial Officer

Date: January 15, 2020





January 2020

Ugur Sahin, MD CEO and Co-Founder





This slide presentation includes forward-looking statements

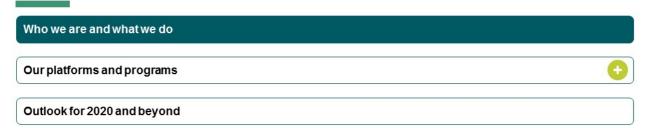
Forward-Looking Statements

Various statements in this slide presentation concerning the future expectations of BioNTech, its plans and prospects, including the Company's views with respect to the potential for mRNA therapeutics, its expectations with respect to the timing and results of clinical trials and release of clinical data (both in respect of its proprietary product candidates and of product candidates of its collaborators), the development of commercial capabilities and the transition of BioNTech to a fully integrated biopharmaceutical company, its expectations with respect to interactions with regulatory authorities such as FDA and EMA, including the potential approval of BioNTech's or its collaborators' current or future drug candidates, and expected royalty and milestone payments in connection with BioNTech's collaborations, constitute forward-looking statements. Words such as "expects," "plans," "potential," "target," "continue" and variations of these words or similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Such statements are based on the current beliefs and assumptions of the management team of BioNTech and on the information currently available to the management team of BioNTech, and are subject to change. The Company will not necessarily inform you of such changes. These forward looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors that could cause the Company's actual results, performance or achievements to be materially different than any future results, performance or achievements expressed or implied by the forward-looking statements. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including the initiation, timing, progress, results and cost of the Company's research and development programs and its current and future preclinical studies and clinical trials; the timing of and the Company's ability to obtain and maintain regulatory approval for its product candidates; the Company's ability to identify research opportunities and discover and develop investigational medicines; the Company's expectations regarding the size of the patient populations for its product candidates, if approved for commercial use; the Company's estimates of its expenses, ongoing losses, future revenue and capital requirements and its needs for or ability to obtain additional financing, the Company's ability to identify, recruit and retain key personnel; the Company's and its collaborators' ability to protect and enforce its intellectual property protection for its proprietary and collaborative product candidates, and the scope of such protection; the development of and projections relating to the Company's competitors or its industry; the Company's ability to commercialize its product candidates, if approved; the rate and degree of market acceptance of the Company's investigational medicines; the Company's ability to manage its development and expansion, regulatory developments in the United States and foreign countries; the Company's ability to manufacture its product candidates with advantages in turnaround times or manufacturing cost; and the Company's ability to implement, maintain and improve effective internal controls. The preceding list is not intended to be an exhaustive list of all of the Company's forward-looking statements. Any forward-looking statements represent the Company's views only as of today and should not be relied upon as representing its views as of any subsequent date. The Company explicitly disclaims any obligation to update any forward-looking statements. The mRNA vaccines and other product candidates discussed in this slide presentation are investigational products being developed by BioNTech and its collaborators and are not currently approved by the FDA, EMA or any other regulatory authority.



-

Agenda



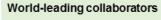


Building a 21st century individualized immunotherapy company



Next generation immunotherapies for cancer and other diseases

- Technology agnostic approach
- Exploiting novel targets and mechanisms
- Vertical Integration with in house manufacturing



- 7 pharmaceutical collaborators and multiple leading academic institutions
- 50:50 cost and profit share agreements
 with leaders in oncology¹





Broad & diversified pipeline

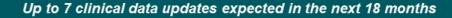
- 10 product candidates in the clinic
- First registrational trial expected to start in 2020²



Large addressable market opportunity in solid tumors

- More than USD 90bn solid tumor market³ addressed
- Commercialization or co-commercialization rights retained in key geographies

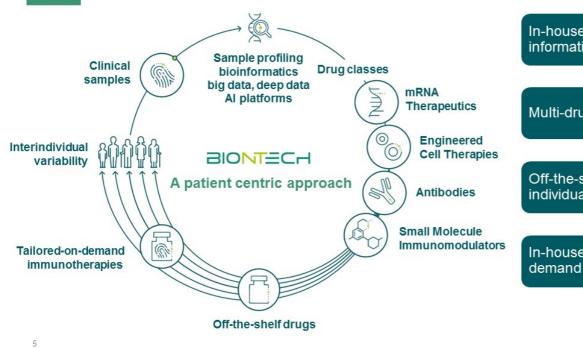




¹with Genentech and Genmab; ²BNT111; ³Source: Global Data Total WW Market, top 10 available products 2018-2024 + other



Our Vision: We aspire to individualize cancer medicine



In-house diagnostics & bioinformatics

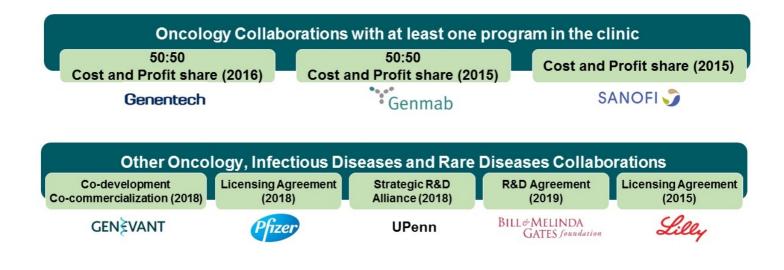
Multi-drug platform approach

Off-the-shelf drugs and individualized therapies

In-house manufacturing with ondemand production capabilities



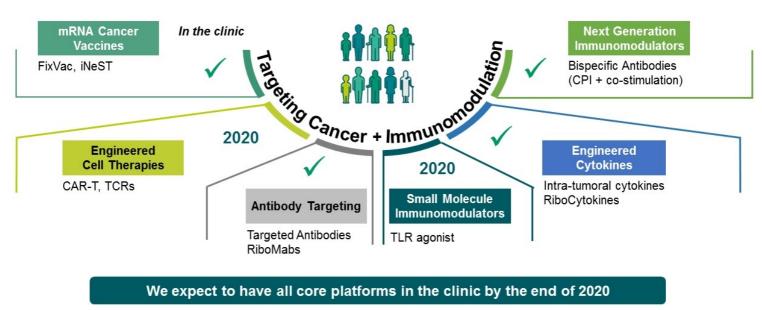
We collaborate with global leaders in our industry





6

Our IO strategy exploits complementary therapeutic platforms





A technology agnostic approach increases our addressable market

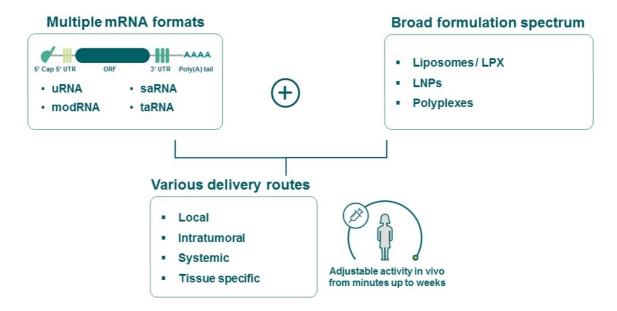
Cancer segment	Patient Population	Challenge	Our Therapeutic Strategy	
High mutational burden/ adjuvant stage cancers	Significant portion of cancer patients	Poor risk-benefit profile of checkpoint inhibitors	• mRNA Neoantigen Immunotherapy (iNeST)	
Low mutational burden cancers	>60% of cancers	Poor response to checkpoint inhibitors	Shared Antigens (FixVac, CAR-T cells, Antibodies)	
"Immune desert" cancers	>40% of high-mutational cancers	Poor infiltration and activation of T-cells in TME ¹	mRNA Immunotherapy Immunostimulatory Compounds (intratumoral, RiboCytokines)	
Cancers with MHC / B2M loss	20-30% of CPI-experienced advanced cancers	Failure of immune system to recognize tumor cells	Antibodies CAR-Ts	
Refractory tumors	Patients with large tumors and multiple resistance mechanisms	Few treatment options	 Engineered Cell Therapies Combination Therapies	

Portfolio approach based on molecular classification and segmentation of cancer types



¹Tumor microenvironment

One of the broadest mRNA toolkits in the industry





Additional late stage trial starts planned for FixVac and iNeST in 2020

Drug Class	Platform	Product Candidate	Indication (Targets)	Preclinical	Phase 1	Phase 2	Rights Collaborator	Milestones
Oncolog	y							
		BNT111	advanced melanoma (adjuvant & metastatic)	e.			fully-owned	report phase 1 data and phase 2 start 1H 2020; phase 3 start 2H 2020
		BNT112	prostate cancer	e.			fully-owned	first patient enrolled in phase 1/2 in Dec 2019 (plan: 2H 2019)
iNes (patient thera	FixVac (fixed combination	BNT113	HPV16+ head and neck cancer ¹				fully-owned	phase 2 start 2H 2020
	of shared non-mutated cancer antigens)	BNT114	triple negative breast cancer	φ o			fully-owned	data update 1H 2020
		BNT115	ovarian cancer ¹				fully-owned	first patient dosed in Dec 2019 ne
		BNT116	NSCLC				fully-owned	- ne
	iNeST (patient specific cancer mutated antigen therapy)	RO7198457	1L melanoma with CPI ²			-	Genentech (global 50:50	top line data 2H 2020 ³
		,	multiple solid tumors	6.			profit/loss)	data update 2020
	Intratumoral Immunotherapy	SAR441000 (BNT131)	solid tumors (IL-12sc, IL-15sushi, GM-CSF, IFNa)				Sanofi (global profit/ loss share)	data update 2H 2020 ⁴

¹BNT113 and BNT115 are currently being studied in an investigator-initiated phase 1 trials; ²Checkpoint Inhibitor; ³We expect this topline data update to include an update on the ongoing study, including patient enrollment numbers, with full efficacy and safety data for an interim update expected in the second half of 2021; ⁴As the trial is sponsored and conducted by Sanofi, the timing of data updates is not under our control, and is subject to change by Sanofi.

We plan to start first-in-human trials for RiboMabs & RiboCytokines in 2020

Drug Class Oncolog	Platform Jy	Product Candidate	Indication (Targets)	Preclinical	Phase 1	Phase 2	Rights Collaborator	Milestones
RiboMabs	BNT141	multiple solid tumors				fully-owned	phase 1 start 2H 2020	
¥	(mRNA-encoded antibodies)	BNT142	multiple solid tumors (CD3+CLDN6)				fully-owned	phase 1 start 2H 2020 or 1H 2021
	RiboCytokines (mRNA-encoded Cytokines)	BNT151	multiple solid tumors (optimized IL-2)				fully-owned	phase 1 start 1H 2020
		BNT152+ BNT153	multiple solid tumors (IL-7, IL-2)				fully-owned	phase 1 start 2H 2020 or 1H 2021



We now have 3 antibodies in clinical testing

Drug Class	Platform	Product Candidate	Indication (Targets)	Preclinical	Phase 1	Phase 2	Rights Collaborator	Milestones
Oncolog	Jy							
jine e red C The rapies		BNT211	multiple solid tumors (CLDN6)				fully-owned	phase 1/2 start 1H 2020
	CAR-T Cells	BNT212	pancreatic, other cancers (CLDN18.2)				fully-owned	-
	TCRs	Undisclosed	undisclosed				Eli Lilly (exclusive license)	-
		To be selected	all tumors				fully-owned	-
Antibodie La	Next-Gen CP ⁵	GEN1046 (BNT311)	multiple solid tumors (PD-L1×4-1BB)				Genmab (global 50:50 profit/loss)	data update 1H 2021
	Immunomodulators	GEN1042 (BNT312)	multiple solid tumors (CD40×4-1BB)					-
	Targeted Cancer Antibodies	BNT321 (MVT-5873)	pancreatic cancer (sLea)	2			fully-owned	patient enrolled to resume phase 1 in Dec 2019
SMIM ⁶	Toll-Like Receptor Binding	BNT411	solid tumors (TLR7)				fully-owned	phase 1 start 1H 2020

⁵Checkpoint; ⁶Small Molecule Immunomodulators



12

2019 Highlights

Pipeline

- Initiated clinical trials for 6 Investigational Medicinal Products (IMPs) across various cancer indications
- Started first randomized Phase 2 trial for iNeST
- Dosed more than 440 patients across all BNTX programs¹ as of end 2019

Corporate

- Raised \$225m in Series B financing and \$149m in Nasdaq IPO
- Signed two additional agreements with Bill & Melinda Gates Foundation and Regeneron
- Purchased site for building new iNeST manufacturing facility and initiated planning and design work

Management Team

- Agreed on new Management Board Member and Chief Strategy Officer (appointment of Ryan Richardson on Jan 12, 2020)
- 13 ¹ BNTX programs: all BioNTech trials including trials sponsored by collaborators



Agenda

Who we are and what we do

Our key platforms and programs

mRNA vaccines – FixVac and iNeST

Antibodies

CARVac platform – CLDN6 CAR-T

RiboCytokines

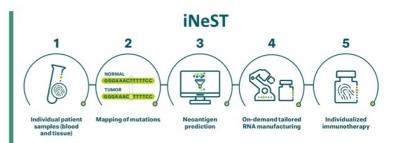
Outlook for 2020 and beyond



Our mRNA vaccine platforms: FixVac and iNeST

FixVac

- Off-the-shelf mRNA immunotherapy
- Targeting a fixed combination of shared antigens
 - Non-mutated antigens shared among patients with a specific cancer type
 - Applicable for almost all types of tumor antigens

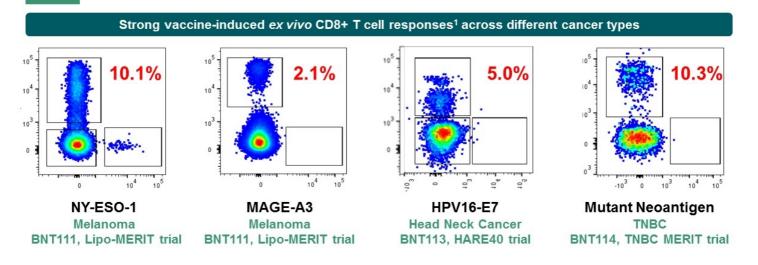


- Fully individualized mRNA immunotherapy
- Targeting 20 neo-antigens unique to each patient
 - Vast majority of neo-antigens are unique to individual patients
 - Applicable across solid tumor types
- Proprietary RNA-LPX formulation for systemic dendritic cell targeting
- Strong immunogenicity observed in vivo via TLR7-driven adjuvant effect
- Potent induction of strong ex vivo CD4+ and CD8+ T cell responses



15

Our RNA-LPX vaccine approach



FixVac iNeST

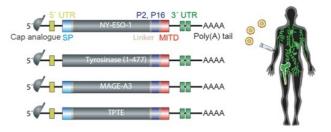


¹T cell responses analyzed by ex vivo multimer staining analysis in blood

FixVac: BNT111 interim clinical activity data (dose range 14µg -100µg)

Summary

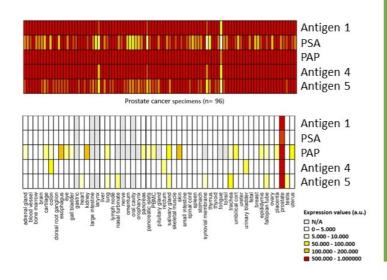
- Advanced melanoma patients (Stage IIIB,C, Stage IV)
- Out of 74 patients with follow-up imaging 42 patients were eligible for exploratory analysis of objective responses as of July 29, 2019
- 25 patients with pretreated and CPI¹-experienced metastatic melanoma who received BNT111 monotherapy
 - 3 patients with partial response (PR)
 - 1 with metabolic complete remission²
 - 7 patients with stable disease (SD)
 - 14 progressive disease (PD)
- 17 patients with CPI-experienced metastatic melanoma who received BNT111 in combination with CPI
 - 6 patients with partial response (PR)
 - 2 patients with stable disease (SD)
 - 9 patients with progressive disease (PD)
- Adjuvant cohort of 32 patients still in study



Shared Antigens Targeted
NY-ESO-1 / MAGE-A3 / Tyrosinase / TPTE



BNT112: FixVac Prostate Cancer



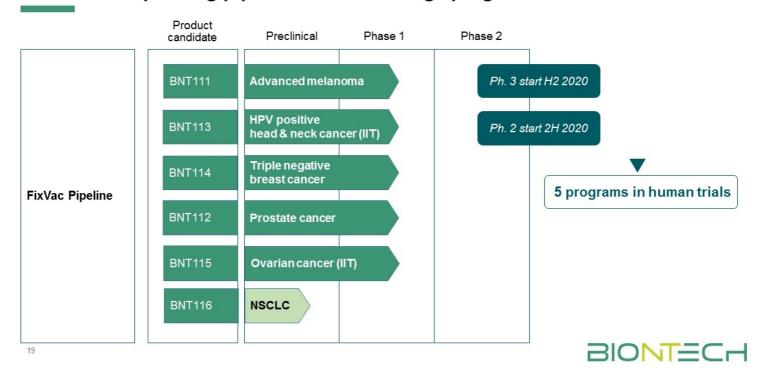
Ph1/2: first patient enrolled in December 2019

- Multipronged vaccine: Targeted antigens of BNT112 are 5 prostate cancer specific antigens (PAP, PSA and 3 undisclosed antigens)
- RNA-LPX vaccine format validated by our FixVac Melanoma program



18

FixVac: an expanding pipeline of clinical stage programs



Conclusions from iNeST clinical trials

Long-term follow-up of completed trial with BNT121 (Intra-nodal administration, RNA):

Long-term relapse free disease activity with BNT121 iNeST in adjuvant melanoma

Preliminary observations in ongoing trials with BNT122 (RO7198457) (IV administration, RNA-LPX):

- iNeST can be manufactured for individual patients with clinically relevant turn-around times across a range of tumor types
- iNeST +/- atezolizumab (Tecentriq) has a manageable safety profile
- Strong iNeST immunogenicity across a range of tumor types

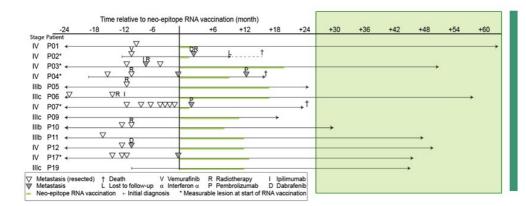
Clinical efficacy evaluation in randomized phase 2 trials initiated



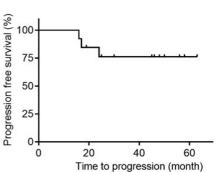
Update for BNT121 (as of October 2019)

Melanoma Stage IIIb, IIIc, and IV, 13 patients, intranodal delivery against 10 neoantigens

Metastatic relapse analyses



9 of 13 patients without documented PFS Events



Stable progression free survival in adjuvant melanoma

21 Sahin et al., Nature 2017



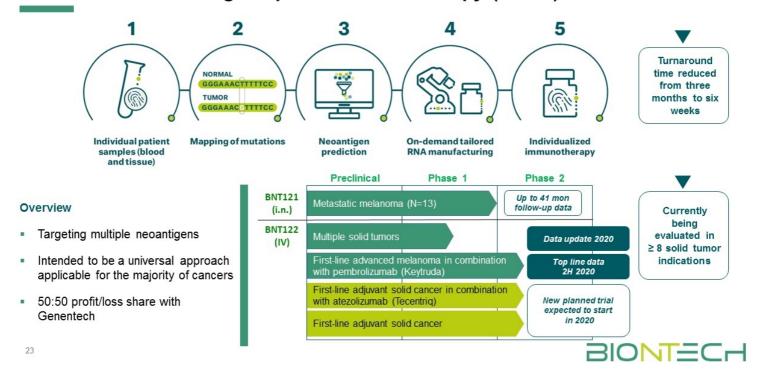
A technology agnostic approach increases our addressable market

Cancer segment	Patient Population Challenge		Our Therapeutic Strategy	
High mutational burden/ adjuvant stage cancers			• mRNA Neoantigen Immunotherapy (iNeST)	
Low mutational burden cancers	>60% of cancers	Poor response to checkpoint inhibitors	Shared Antigens (FixVac, CAR-T cells, Antibodies)	
"Immune desert" cancers	>40% of high-mutational cancers	Poor infiltration and activation of T-cells in TME	 mRNA Immunotherapy Immunostimulatory Compounds (intratumoral, RiboCytokines) 	
Cancers with MHC / B2M loss	20-30% of CPI-experienced advanced cancers	Failure of immune system to recognize tumor cells	Antibodies CAR-Ts	
Refractory tumors	Patients with large tumors and multiple resistance mechanisms	Few treatment options	Engineered Cell Therapies Combination Therapies	

Portfolio approach based on molecular classification and segmentation of cancer types



Individualized Neoantigen Specific Immunotherapy (iNeST)



Digitization and automation for neo-antigen vaccine manufacturing



Paperless documentation

Semiautomatic manufacturing

- 2 mRNA GMP production facilities: Idar-Oberstein (GMP since 2011) and Mainz (GMP since 2018)
- Construction and GMP licensure of new Mainz facility for iNeST expected in 2022/2023
- Partnered with Siemens to develop automated production processes



2/

Agenda

Who we are and what we do

Our platforms and programs

mRNA vaccines – FixVac and iNeST

Antibodies

CARVac platform – CLDN6 CAR-T

RiboCytokines

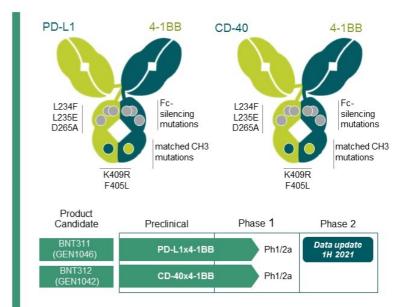
Outlook for 2020 and beyond



Next-Gen checkpoint immunomodulators

Two bispecific antibodies partnered with Genmab

- Potential "first-in-class" bispecific antibodies
- Conditional activation of immuno-stimulatory checkpoint activity
- 50:50 profit/loss share
- Both programs are now in the clinic





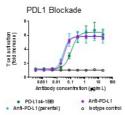
26

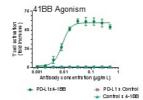
Next-Gen checkpoint immunomodulators

Characteristics

- Bi-specific antibody combining constitutive CPI blockade and conditional co-stimulatory activity
- Enhanced proliferation of antigen specific activated T cells in the presence of PD-L1-positive cells



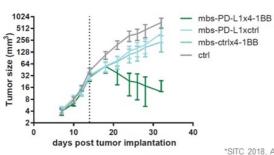




Constitutive PD-L1 blockade & Conditional 4-1BB agonism

- Increased tumor infiltrating lymphocyte (TIL) expansion in human tumor tissue cultures ex vivo
- Induced tumor regression of murine tumors superior to pure PD-L1 blockage associated with an increase in tumor-specific CD8 T-cells

Preclinical antitumor activity beyond PDL1 blockade







27

A technology agnostic approach increases our addressable market

Cancer segment	cer segment Patient Population Cha		Our Therapeutic Strategy	
High mutational burden/ adjuvant stage cancers	Significant portion of cancer patients	Poor risk-benefit profile of checkpoint inhibitors	• mRNA Neoantigen Immunotherapy (iNeST)	
Low mutational burden cancers	>60% of cancers	Poor response to checkpoint inhibitors	Shared Antigens (FixVac, CAR-T cells, Antibodies)	
"Immune desert" cancers	>40% of high-mutational cancers	Poor infiltration and activation of T-cells in TME	 mRNA Immunotherapy Immunostimulatory Compounds (intratumoral, RiboCytokines) 	
Cancers with MHC / B2M loss	20-30% of CPI-experienced advanced cancers	Failure of immune system to recognize tumor cells	AntibodiesCAR-Ts	
Refractory tumors	Patients with large tumors and multiple resistance mechanisms	Few treatment options	 Engineered Cell Therapies Combination Therapies	

Portfolio approach based on molecular classification and segmentation of cancer types



BNT321: Cancer antibody targeting Cancer Associated Carbohydrate sLe^a

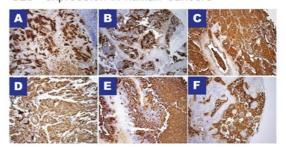
Characteristics

- Fully human IgG1 mAb with subnanomolar affinity, potent cell killing by ADCC &CDC activity.
- Targets sialyl Lewis A epitope (sLea) epitope present in a range of glyco-proteins collectively known as CA19-9
- CA19-9 is specifically expressed in pancreatic and various other cancers. Shedded CA19-9 is a prognostic marker in these cancers
- CA19-9 is functionally associated with carcinogenesis¹

Preliminary data

- Six patients evaluated in combination with chemotherapy; four of them met the criteria for partial response and two patients met the criteria for stable disease. BNT321 was generally well tolerated by all six patients
- First patient enrolled to resume the BNT321 trial against pancreatic cancer in December 2019

sLea expression in human cancers



- A. Pancreatic ductal adenocarcinoma
- B. Colon carcinoma
- C. Lung adenocarcinoma
- D. Urinary bladder, mucinous adenocarcinoma
- E. Colon metastatic to ovary
- F. Breast carcinoma, lymph node



¹Engle et al, Science 2019: The glycan CA19-9 promotes pancreatitis and pancreatic cancer in mice

AACR 2016, Abstract CT026, Ragupathi_Maffuid



First-in-human Ph1 trial also supports theranostic potential

PET/CT imaging study with MVT-2163 (PET conjugated Ab version; 89Zr-DFO-HuMab-5B1)

- Robust accumulation in tumors lesions; tumor uptake increasing over time.
- Validates the target and the antibody and indicates utility of BNT321 also for detection by radio-imaging and for radiotherapy.

Lohrmann et al., Clin Cancer Res, 2019 in press

Memorial Sloan Kettering BIONTECH

30

Agenda

Who we are and what we do

Our platforms and programs

mRNA vaccines – FixVac and iNeST

Antibodies

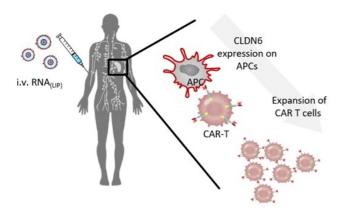
CARVac platform – CLDN6 CAR-T

RiboCytokines

Outlook for 2020 and beyond

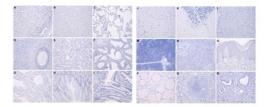


BNT211: Next generation CAR-T targeting CLDN6 with CARVac "primer"

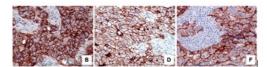


CAR-T cell therapy + RNA Vaccine to amplify CAR-T cell in vivo

CLDN6 is not present in healthy tissues



CLDN6 is expressed in multiple cancers

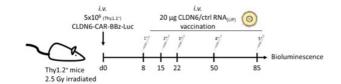


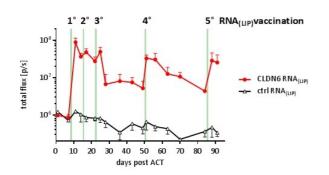
Ovarian cancer Testicular tumor Lung cancer

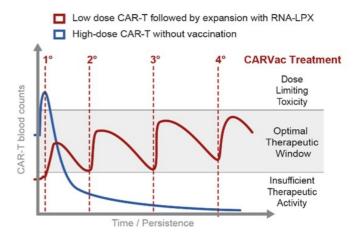
Complete eradication of advanced tumors demonstrated in an ovarian carcinoma xenograft model

BIONTECH

BNT211: Next generation CAR-T targeting CLDN6 with CARVac "primer"







Applicability shown for CLDN6, CLD18.2, CD19 CAR-T cells

RNA-lipoplex vaccine enhances expansion & persistence of CAR T

1Reinhard et al, Science 2020: An RNA vaccine drives expansion and efficacy of claudin-CAR-T cells against solid tumors

BIONTECH

A technology agnostic approach increases our addressable market

Cancer segment	Patient Population	Challenge	Our Therapeutic Strategy
High mutational burden/ adjuvant stage cancers	Significant portion of cancer patients	Poor risk-benefit profile of checkpoint inhibitors	• mRNA Neoantigen Immunotherapy (iNeST)
Low mutational burden cancers	>60% of cancers	Poor response to checkpoint inhibitors	Shared Antigens (FixVac, CAR-T cells, Antibodies)
"Immune desert" cancers	>40% of high-mutational cancers	Poor infiltration and activation of T-cells in TME	mRNA Immunotherapy Immunostimulatory Compounds (intratumoral, RiboCytokines)
Cancers with MHC / B2M loss	20-30% of CPI-experienced advanced cancers	Failure of immune system to recognize tumor cells	AntibodiesCAR-Ts
Refractory tumors	Patients with large tumors and multiple resistance mechanisms	Few treatment options	Engineered Cell Therapies Combination Therapies

Portfolio approach based on molecular classification and segmentation of cancer types



Further development of engineered T cell therapies

Key Plans

- Start first-in-human trial for CLDN6 CAR-T in solid tumors
- Second CAR-T in pipeline for solid tumors: CLDN18.2 CAR-T
- Develop CARVac with other CAR-T therapies
- Plan to announce first TCRs for TCR engineered therapies
- Expansion of certified GMP T cell manufacturing facilities planned to be completed in 2020



Idar-Oberstein: GMP certified Cell Therapy Manufacturing

Front view model of final layout with the existing buildings A/B and the new buildings C and D (D behind B).



35

Agenda

Who we are and what we do

Our platforms and programs

mRNA vaccines – FixVac and iNeST

Antibodies

CARVac platform – CLDN6 CAR-T

RiboCytokines

Outlook for 2020 and beyond



A technology agnostic approach increases our addressable market

Cancer segment	Patient Population	Challenge	Our Therapeutic Strategy
High mutational burden/ adjuvant stage cancers	Significant portion of cancer patients	Poor risk-benefit profile of checkpoint inhibitors	• mRNA Neoantigen Immunotherapy (iNeST)
Low mutational burden cancers	>60% of cancers	Poor response to checkpoint inhibitors	Shared Antigens (FixVac, CAR-T cells, Antibodies)
"Immune desert" cancers	>40% of high-mutational cancers	Poor infiltration and activation of T-cells in TME	mRNA Immunotherapy Immunostimulatory Compounds (intratumoral, RiboCytokines)
Cancers with MHC / B2M loss	20-30% of CPI-experienced advanced cancers	Failure of immune system to recognize tumor cells	Antibodies CAR-Ts
Refractory tumors	Patients with large tumors and multiple resistance mechanisms	Few treatment options	 Engineered Cell Therapies Combination Therapies

Portfolio approach based on molecular classification and segmentation of cancer types



RiboCytokines: a novel therapeutic platform

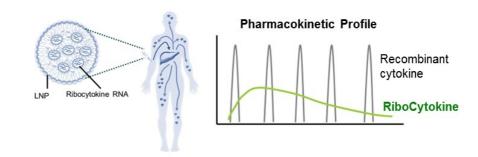
The Concept

- Cytokines encoded by mRNA and produced in the patient
- Improved PK properties to improve tolerability and activity
- Cytokine design to improve immunological properties and tolerability

Therapeutic Goals

- Overcome resistance mechanisms by therapeutic synergy
- Improve activity of mRNA Vaccines

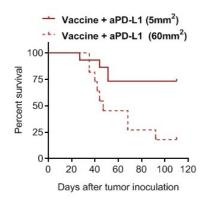
Worldwide rights; wholly owned





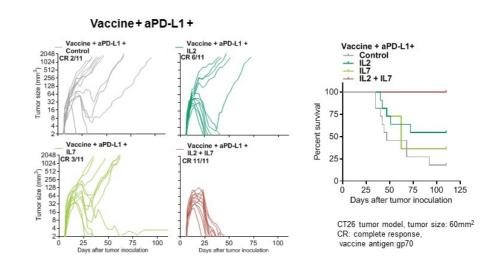


RiboCytokines boost clinical activity of vaccination and PD-L1 blockade



CT26 tumor model, vaccine antigen: gp70

Effect of tumor size on treatment success of vaccination + aPD-L1



RiboCytokines boost the clinical activity of vaccination + aPD-L1 in large tumors



Multiple angles for therapeutic synergy across platforms

Approved PD1/PL1 Inhibitors

mRNA Cancer Vaccines

- FixVac Melanoma (BNT111): Induces objective responses in CPIexperienced patients
- iNeST (BNT122): Currently in Phase 2 in combination with CPI in 1L Melanoma.
 2 adjuvant trials planned in 2020

mRNA Cancer Vaccines

Engineered Cytokines

 Ribocytokine IL-2 (BNT151): Amplification of vaccine induced T cell response in pre-clinical studies

Engineered Cell Therapies

mRNA Cancer Vaccines

 BNT211: First-of-kind CLDN-6 CAR-T approach utilizing <u>C</u>AR-T <u>Amplifying</u> <u>RNA Vaccine</u> (CARVac). Significant amplification of CAR-T cells in preclinical studies (published in SCIENCE, 2020)

Broad therapeutic potential across a range of solid tumors



Agenda

Who we are and what we do	
Our platforms and programs	•
Outlook for 2020 and beyond	



We expect a significant news flow in the upcoming next 18 months

Platform	Candidate	Indication (Target)	1H-2020	2H-2020	2021 ³	20223
FixVac	BNT111	Advanced Melanoma	Report Phase 1 Start Phase 2	Start Phase 3	Phase 2/3	
	BNT112	Prostate Cancer				Phase 1/2
	BNT113	HPV16+ H&N Cancer		Start Phase 2		78,40,770,770,770
	BNT114	Triple Negative Breast Cancer	Data update Phase 1			
iNeST	R07198457	1L Melanoma with CPI		Trial progress update1	Phase 2	
INeSI	(BNT122)	Multiple ST (baskettrial)	Data upda	te Phase 1/2		
Intratumoral Immunotherapy	SAR441000 (BNT131)	Solid tumors (IL-12sc, IL-15sushi, GM-CSF, IFNa)		Report Phase 1/2 ²		
D11 14 1	BNT141	Multiple ST		Start Phase 1		
RiboMabs	BNT142	Multiple ST (CD3+CLDN6)		Start F	Phase 1	
RiboCytokines	BNT151	Multiple ST (Optimized IL-2)	Start Phase 1			Phase 1
970 2	BNT152/153	Multiple Solid Tumors (IL-7, IL-2)		Start I	Phase 1	
CAR-T Cells	BNT211	Multiple ST (CLDN6)	Start Phase 1/2			Phase 1/2
Next-Gen CP	BNT311	Multiple ST (PD-L1x4-1BB)			Report Phase 1/2	
Immunomodulators	BNT312	Multiple ST (CD40x4-1BB)				
Antibodies	BNT321	Pancreatic Cancer (CA19-9)				
TLR7 Ligand	BNT411	Multiple ST (TLR7)	Start Phase 1		Report F	hase 1/2
12 3 12		Influenza		Start first study		
Infectious and Rare Diseases		Up to 10 Infectious Disease Indications			Start first Phase 1	
Discuses		5 Rare Disease Indications		Start first Phase 1		

We expect this topline data update to include an update on the ongoing study, including patient enrollment numbers, with full efficacy and safety data for an interim update expected in the second half of 2021; "As the trial is sponsored and conducted by Sanoft, the timing of data updates is not under our control, and is subject to change by Sanoft. "Our expectations for timing of milestones beyond 2020 a premised on and subject to the abolite-verment of earlier milestones on their expected timelines. Preas released by the issued once first patient has been dosed.



Building a 21st Century Immunotherapy Company

2020 Outlook

- 5 trial updates (incl. publishing BNT111 FixVac Melanoma Phase 1/2 data in peer reviewed journal)
- 2 Initiate Phase 3 registrational trial for BNT111 FixVac Melanoma
- 3 Initiate 2 additional iNeST trials in adjuvant stage cancers
- 4 Initiate **Phase 1/2 trial using CARVac (BNT211)** in CLDN6+ solid tumors (e.g., ovarian, testicular)
- 5 Initiate Phase 2 trial in HPV16+ H&N cancer
- 6 Continue to build **global clinical development organization** (US development team on East Coast)



