

CureVac Revolutionizing mRNA for Life

Pierre Kemula, Chief Financial Officer

14th Kempen Life Sciences Conference, April 20, 2022

Forward-Looking Statements

The information set forth herein does not purport to be complete or to contain all of the information you may desire. Statements contained herein are made as of the date of this document unless stated otherwise, and neither the delivery of this document at any time, nor any sale of securities, shall under any circumstances create an implication that the information contained herein is correct as of any time after such date or that information will be updated or revised to reflect information that subsequently becomes available or changes occurring after the date hereof.

This presentation of CureVac N.V. (the “company”) contains statements that constitute “forward-looking statements” as that term is defined in the United States Private Securities Litigation Reform Act of 1995, including statements that express the company’s opinions, expectations, beliefs, plans, objectives, assumptions or projections of the company regarding future events or future results, in contrast with statements that reflect historical facts. Examples include discussion of the potential efficacy of the company’s vaccine and treatment candidates and the company’s strategies, financing plans, growth opportunities and market growth. In some cases, you can identify such forward-looking statements by terminology such as “anticipate,” “intend,” “believe,” “estimate,” “plan,” “seek,” “project,” or “expect,” “may,” “will,” “would,” “could,” “potential,” “intend,” or “should,” the negative of these terms or similar expressions. Forward-looking statements are based on management’s current beliefs and assumptions and on information currently available to the company. However, these forward-looking statements are not a guarantee of the company’s performance, and you should not place undue reliance on such statements.

Forward-looking statements are subject to many risks, uncertainties and other variable circumstances, including negative worldwide economic conditions and ongoing instability and volatility in the worldwide financial markets, ability to obtain funding, ability to conduct current and future preclinical studies and clinical trials, the timing, expense and uncertainty of regulatory approval, reliance on third parties and collaboration partners, ability to commercialize products, ability to manufacture any products, possible changes in current and proposed legislation, regulations and governmental policies, pressures from increasing competition and consolidation in the company’s industry, the effects of the COVID-19 pandemic on the company’s business and results of operations, ability to manage growth, reliance on key personnel, reliance on intellectual property protection, ability to provide for patient safety, and fluctuations of operating results due to the effect of exchange rates or other factors. Such risks and uncertainties may cause the statements to be inaccurate and readers are cautioned not to place undue reliance on such statements. Many of these risks are outside of the company’s control and could cause its actual results to differ materially from those it thought would occur. The forward-looking statements included in this presentation are made only as of the date hereof. The company does not undertake, and specifically declines, any obligation to update any such statements or to publicly announce the results of any revisions to any such statements to reflect future events or developments, except as required by law.

For further information, please reference the company’s reports and documents filed with the U.S. Securities and Exchange Commission (SEC). You may get these documents by visiting EDGAR on the SEC website at www.sec.gov.



Pioneers in medical mRNA applications



Founded in **2000**

Headquartered in **Tübingen**



>900 employees



Financing business transformation

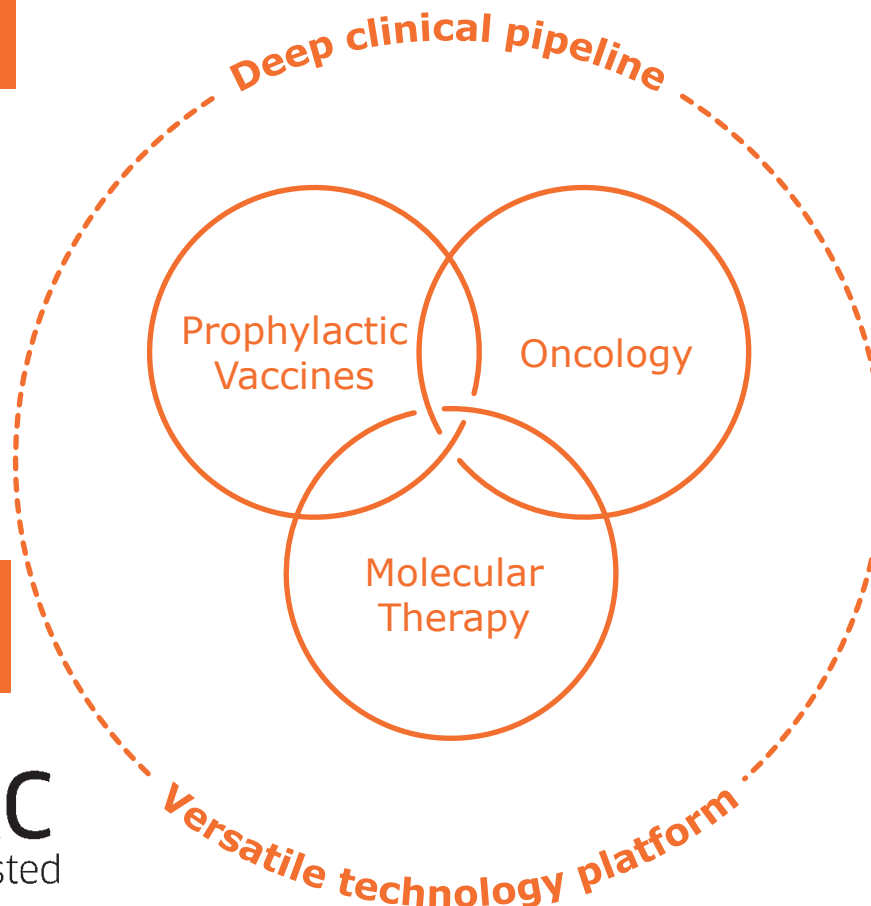
€1.06 billion

Cash position*

Nasdaq Biotech Index
(since Dec 2021)

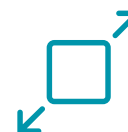


CVAC
Nasdaq Listed



Manufacturing expertise

3 GMP certified suites online



1 large-scale suite in the build-up

Broad European

CMO network



Flexible and mobile

The RNA Printer

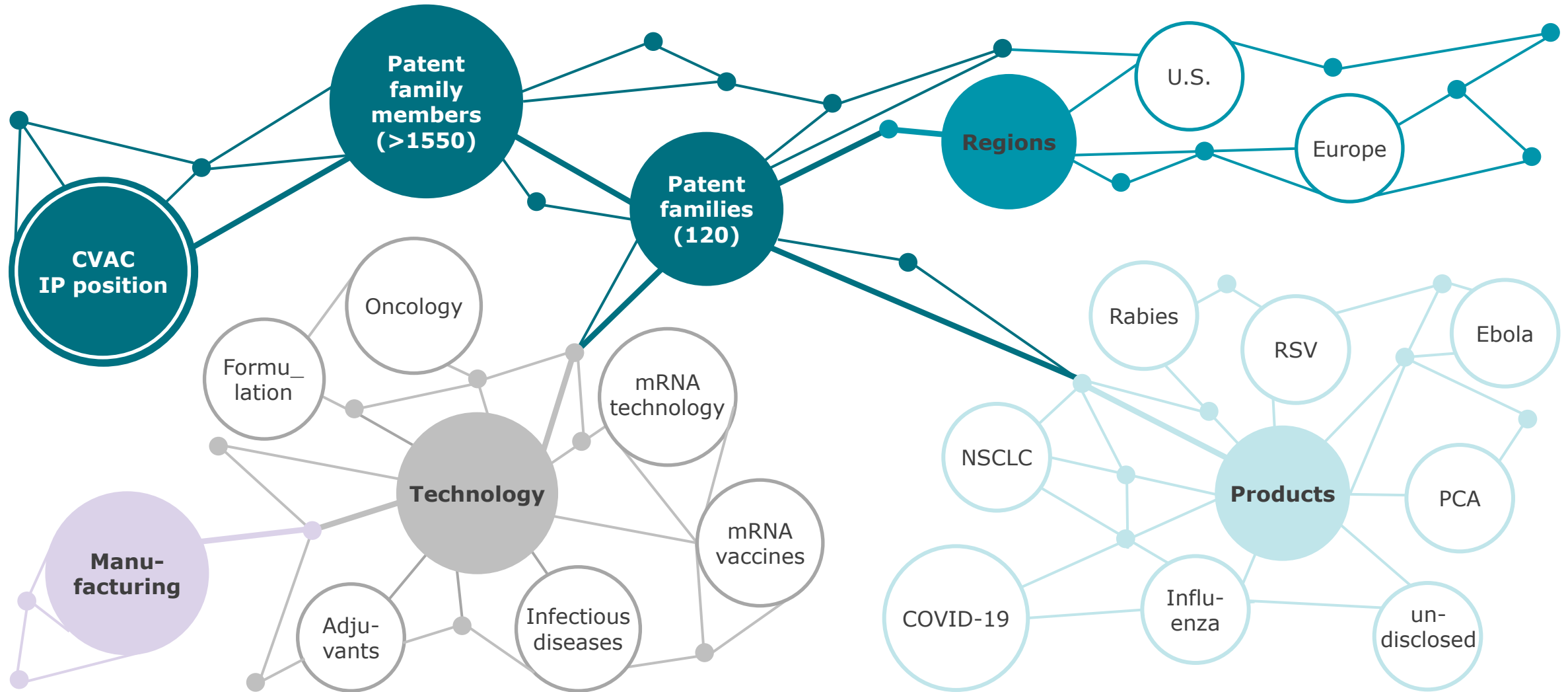


Strategic partnerships

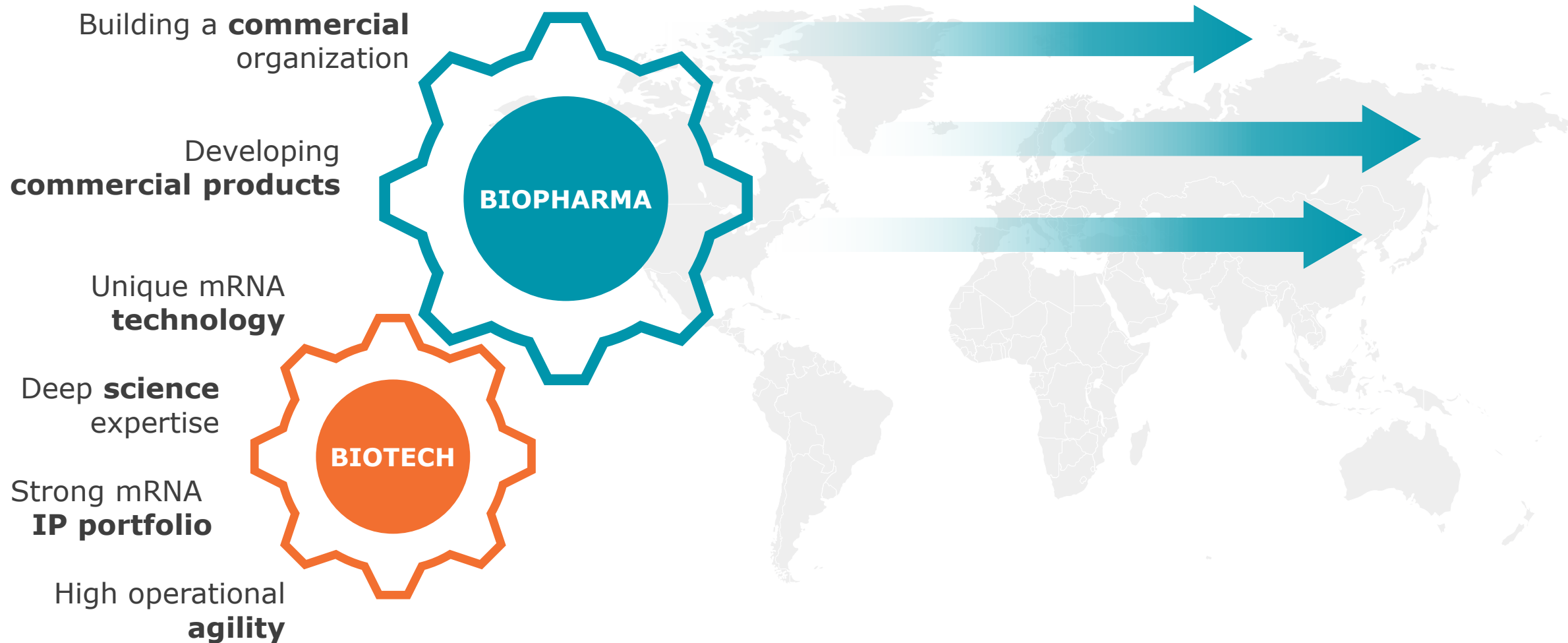
- Operational expertise
- Development support
- Commercial execution power



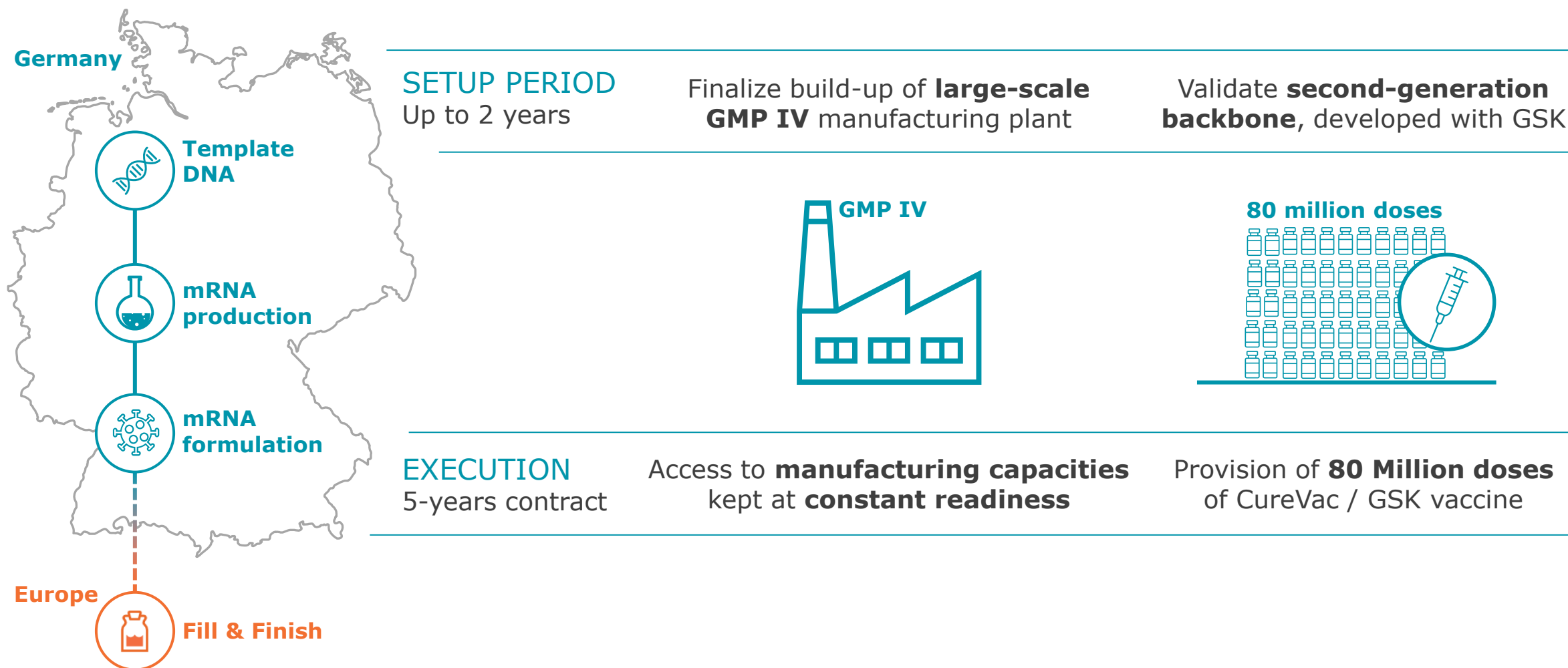
One of the Industry's Largest and Most Diverse Patent Portfolios with >1000 issued Patents



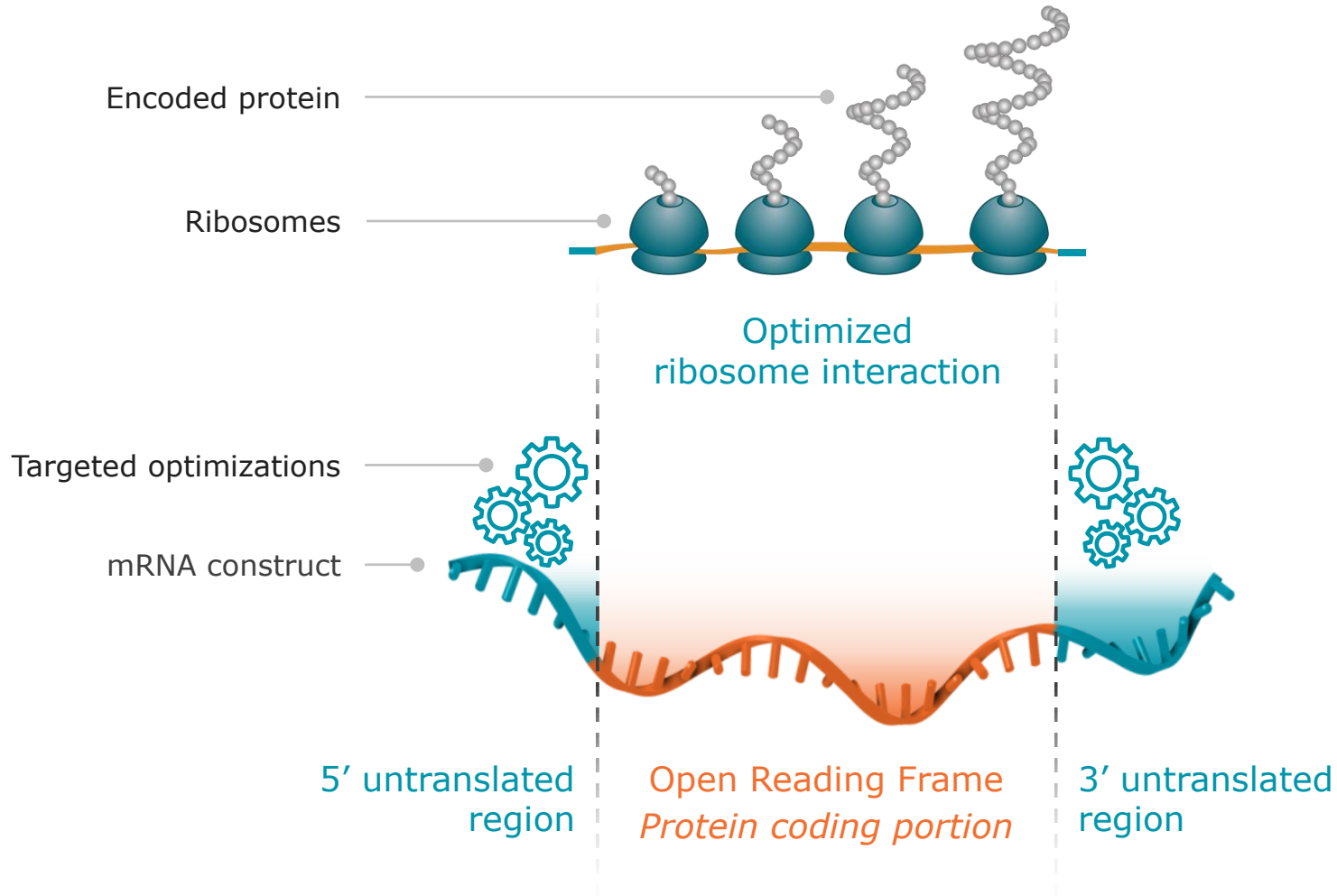
Corporate Transformation: Propelling CureVac Forward



Pandemic Preparedness Contract with German Government until 2029



Optimizing mRNA Candidates for Broad Range of Vaccine Applications



- Optimizing untranslated regions based on **potent, tissue-specific** regulatory elements
- Optimizations allow for increased **translation efficiency** and **immunogenicity**
- Maximizing ribosome interaction for increased protein expression enables **low dose activity**

CureVac Pipeline: A Diversified Portfolio

AREA	PROGRAM	CANDIDATE	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
PROPHYLACTIC VACCINES	1 st -Gen COVID-19 Program	1 st -Gen candidate: CVnCoV ¹⁾				
	2 nd -Gen COVID-19 Program 	2 nd -Gen candidate: CV2CoV				
		Further 2 nd -Gen candidates				
	Infectious Disease Program 	Influenza: CVSQIV				
		Four additional targets				
	Rabies	CV7202				
	Diverse Projects 	Rota, malaria, universal influenza				
ONCOLOGY	Solid tumors ²⁾	CV8102				
	Shared neo-antigen	-				
	Tumor Associated Antigens	-				
MOLECULAR THERAPY	Cas9 gene-editing 	CRISPR Therapeutics collaboration				
	Liver Diseases	REBIRTH-Research Center collaboration				
	Ocular Diseases	Schepens Eye Research Institute collaboration				
	Lung Diseases	Yale collaboration				
	Therapeutic Antibodies 	Genmab collaboration				

Selected Key Catalysts in 2022

		Q1	Q2	Q3	Q4
 Prophylactic Vaccines	Second-generation COVID clinical development - Unmodified constructs - Modified constructs <i>Different variants</i>	Ph1 started	✓		
	Second-generation influenza clinical development - Unmodified constructs - Modified constructs <i>Multivalent approach</i>	Ph1 started	✓	Est. start Ph1	Est. start Ph3
 Oncology	CV8102 Phase 1 Study expansion in advanced melanoma				Data
	Cancer vaccines - Proof-of-concept study - Focus on T-cell mediated mechanism		Candidate selection		
 Molecular Therapy	Gene repair - Focus on Eye and liver indications - Eye collaboration preclinical study (Schepens Eye Research Institute)				
			Publication		

2022

**Second-Generation Vaccine Program
in Collaboration with GlaxoSmithKline**

COVID-19 PROGRAM

- Broad program of **multiple constructs**
- First construct: **CV2CoV**

Broad Technology Approach

- Unmodified mRNA
- Modified mRNA

Advanced Vaccine Formats

- Multivalent vaccines
- Combination vaccines

Flexible Protection

- Emerging virus variants

BROAD INFECTIOUS DISEASES PROGRAM

- Collaboration includes **5 disease targets** next to COVID-19
- First construct: **CVSQIV** for **INFLUENZA**
- **Technology expansion** following COVID-19 collaboration

SECOND-GENERATION BACKBONE OPTIMIZATION

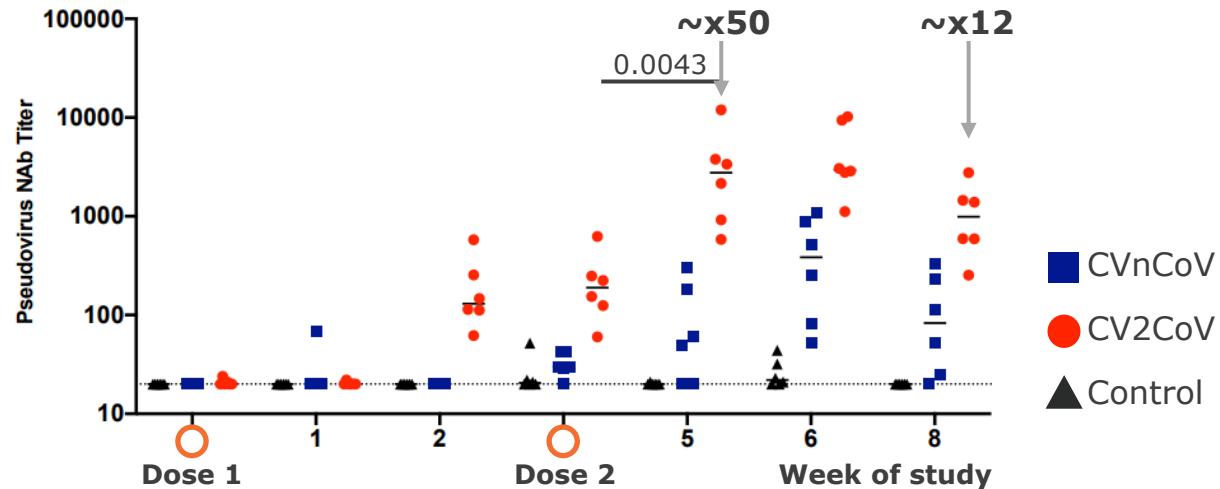
Untranslated regions

Poly-A tail

Higher protein **expression**

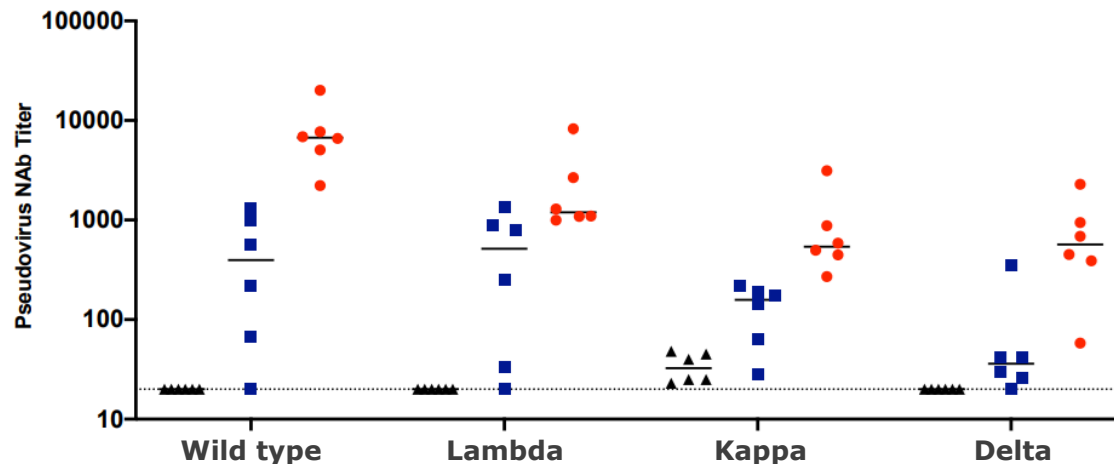
Improved **kinetics**

CV2CoV Induces Strong Neutralizing Antibody Titers in Non-Human Primates; Nature Publication*



Neutralizing antibody titers

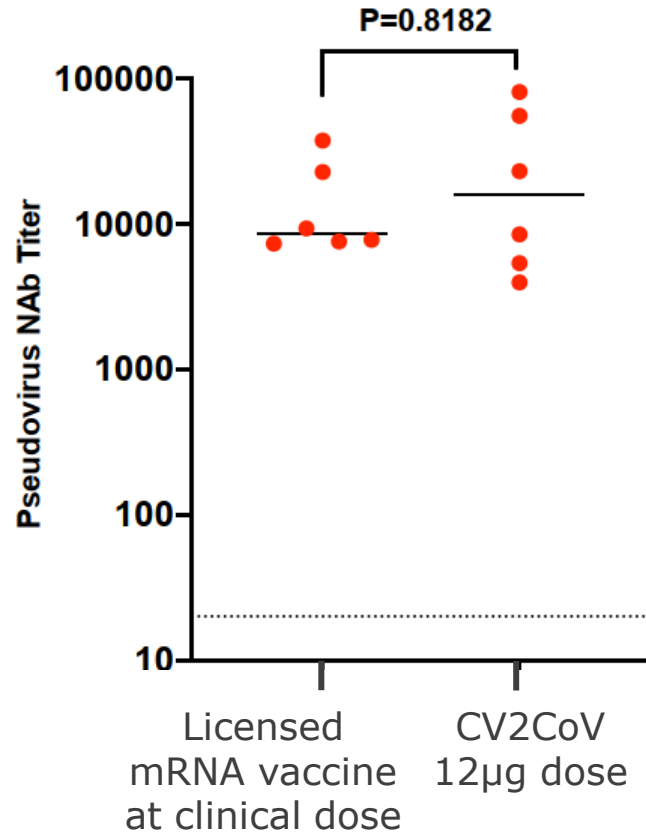
- Two-dose schedule with 12µg
- CV2CoV: faster onset of immune response
- CV2CoV: 50x higher titers at week 5



Variant cross-neutralizing capacity

- Two-dose schedule with 12µg, week 6
- General reduction of titers due to variants
- CV2CoV: higher titers across all variants

CV2CoV Neutralizing Antibody Titers in Non-Human Primates Fully Competitive with Licensed mRNA Vaccine; Nature Publication*



- Neutralizing antibodies induced after two vaccinations with CV2CoV or Comirnaty® (Pfizer/BioNTech) highly comparable at **peak immunity at week 5**
- Relevant data for the use of unmodified mRNA for the **potential of overall technology**

Key Messages for Second-Generation Vaccine Program with GSK

- Together with GSK, we are advancing our **second-generation vaccine program** in infectious diseases incl. **COVID-19 and influenza**
- Preclinical data for CV2CoV has shown **strong technology improvements** going from the first- to the second-generation
- We execute on a **comprehensive clinical development plan for 2022** featuring **four clinical trials** in COVID and influenza
- We have started the **first clinical trial in February in flu** featuring a differentiated multivalent candidate
- Taking a **broad technology approach**, we aim to find optimal candidates by assessing **unmodified** and **modified** as well as **mono-** and **multivalent** constructs





Oncology Lead Asset, CV8102

Mode of Action

- Targeting **TLR 7 and 8**
- Targeting **RIG-I**

CV8102-injected tumors

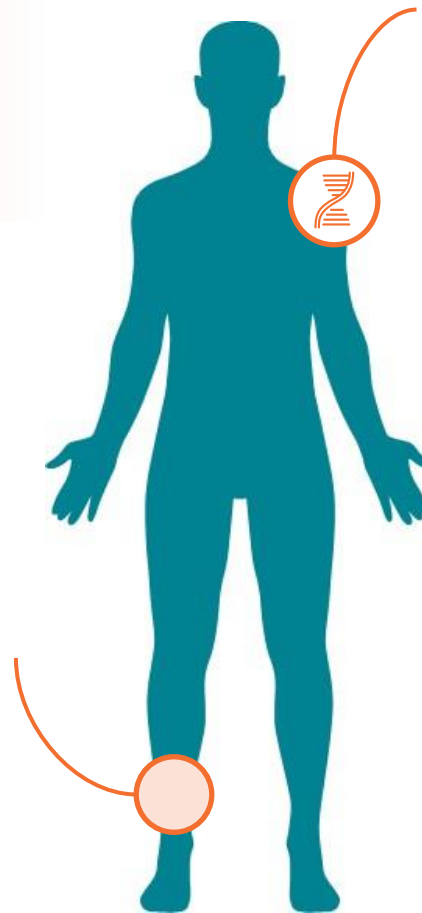
Mimicking a viral infection of the tumor

- Activation of immune cells
- Antigen release and presentation
- Activation of NK cells and T cells
- Inhibiting tumor growth

Distal, non-injected tumors

Systemic amplification of immune response

- Inhibiting tumor growth



CV8102

- Single-stranded, non-coding RNA
- Formulated with a carrier peptide
- Activates innate (TLR 7/8 + RIG-I) and adaptive immune system
- Intra-tumoral injection into a single accessible tumor

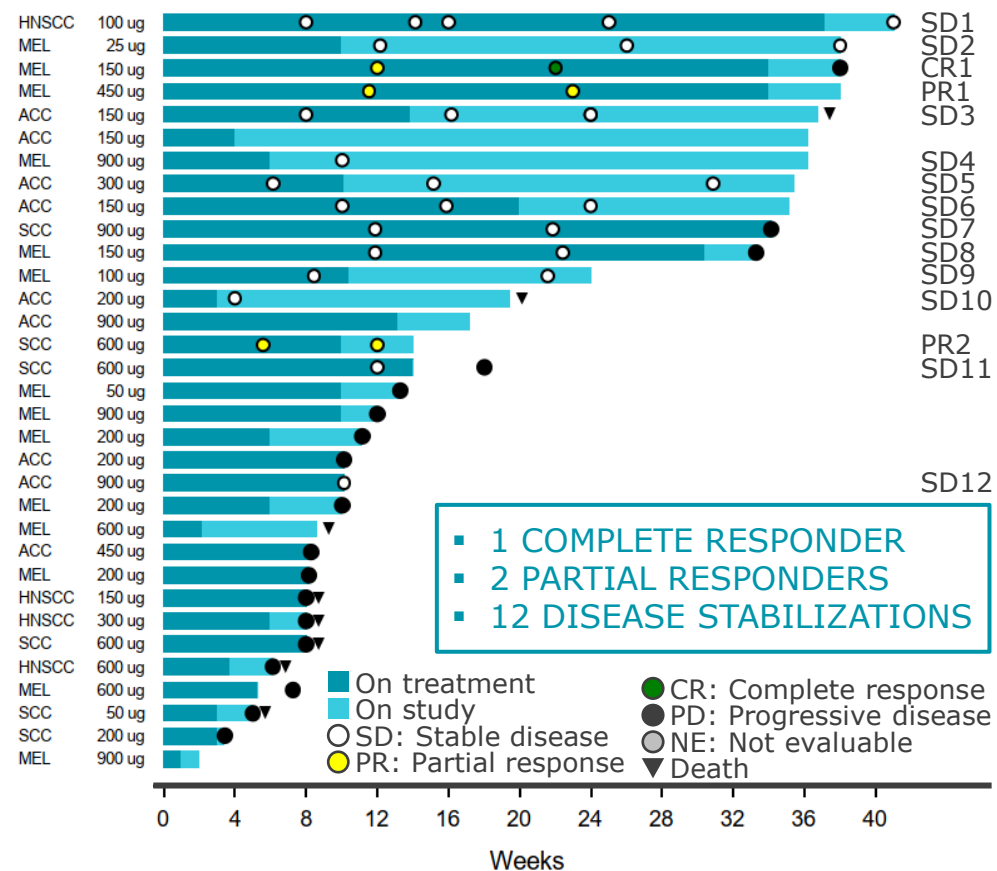
PHASE 1 CLINICAL STUDY

Dose-escalation part		Expansion part	
Four solid tumors*		Advanced melanoma	
Single-agent	Anti-PD1 combination	Single-agent	Anti-PD1 combination
33 patients	25 patients	10 patients	30 patients
Fully recruited		Fully recruited	

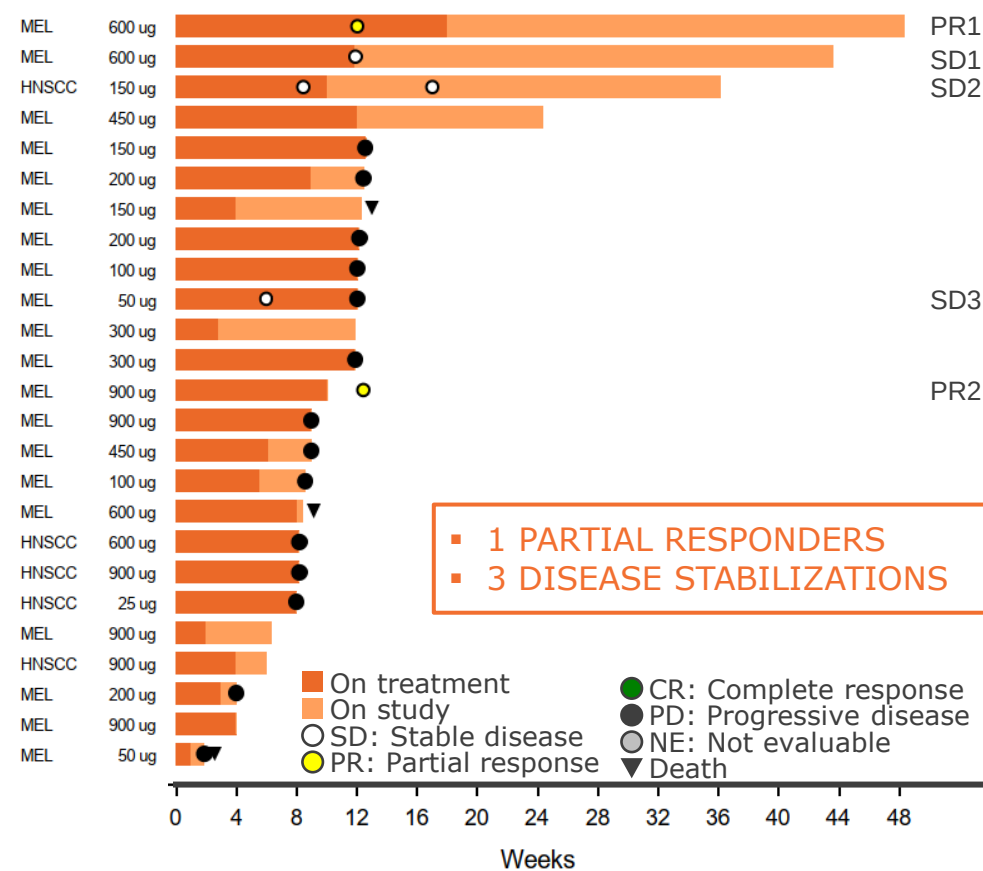
- Up to **8 intra-tumoral injections** over a **12-week period**
  - Weekly injections for the first 5 cycles
  - Biweekly injections for subsequent cycles
- In single agent cohort more than 8 injections possible in case of clinical benefit

ESMO: CV8102 Induces Promising Clinical Responses in Different Indications

CV8102 SINGLE-AGENT TREATMENT 33 PATIENTS



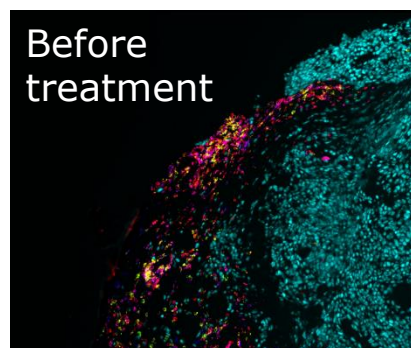
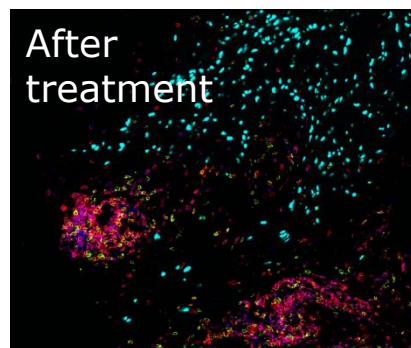
CV8102 + ANTI-PD-1 COMBINATION TREATMENT 25 PATIENTS



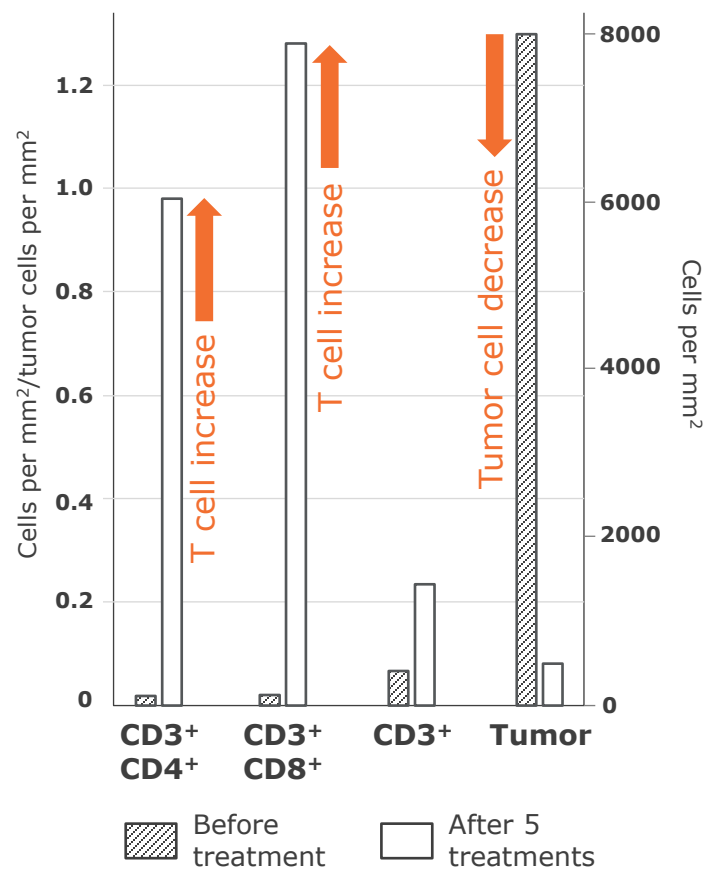
SITC: Immune Activation Pattern Supports Local and Systemic Effect of CV8102

Intra-tumoral response: induction of T cells

- Representative tumor biopsy: single-agent patient
- Non-injected tumor in cutaneous melanoma

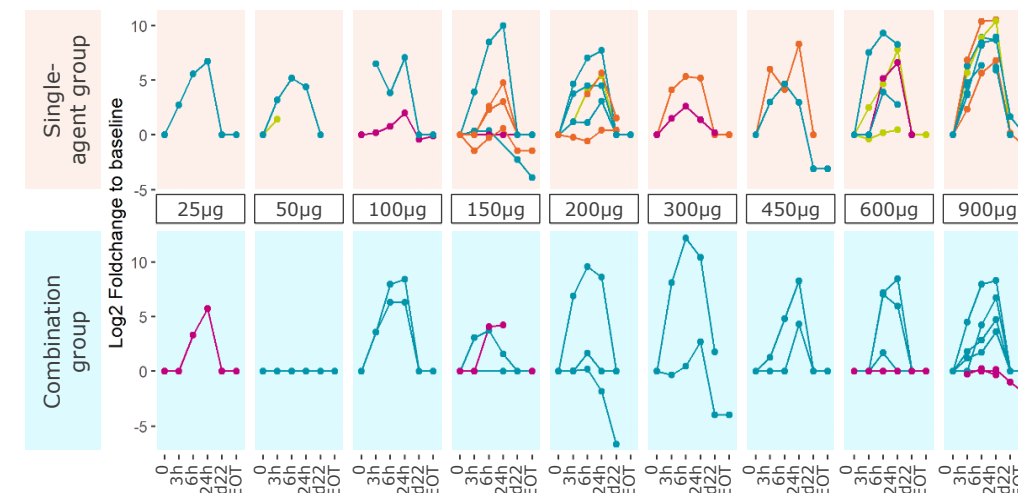


● Sox10⁺   ● CD8⁺
● CD3⁺   ● CD3⁺CD4⁺
● CD4⁺   ● CD3⁺CD8⁺

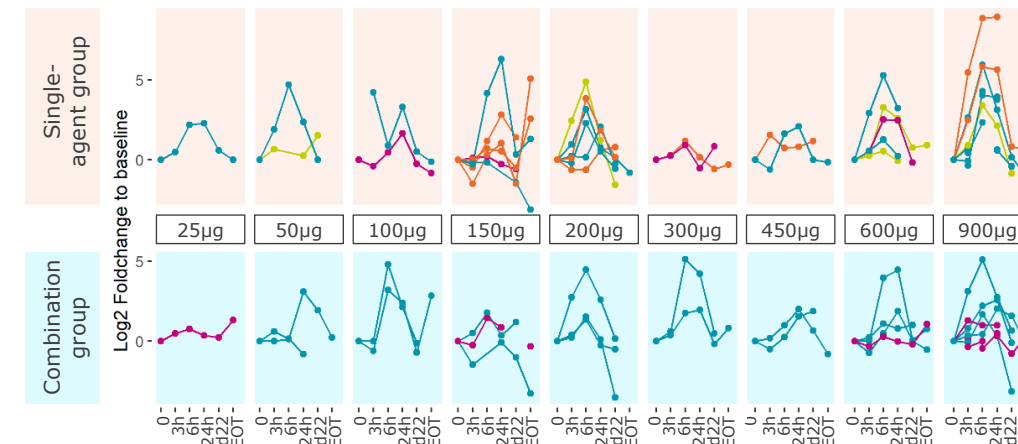


Graphic simplified for presentation purposes

System Cytokine Response: interferon-alpha



System Cytokine Response: interferon-gamma



Key Messages for the Oncology Pipeline

- Promising data for CV8102 show the potential of the immuno-modulator to activate the immune system by **mimicking a viral infection of the tumor**
- The data supports a **T cell mediated mode of action** also enabling a **systemic response** following local intra-tumoral injection
- We are growing our oncology pipeline and screen for **impactful antigens** and **relevant industry collaborations** to develop targeted mRNA immunotherapies
- We anticipate initiation of a **proof-of concept study** for **selected antigens** in cancer vaccines with a focus on strong T cell mediated responses



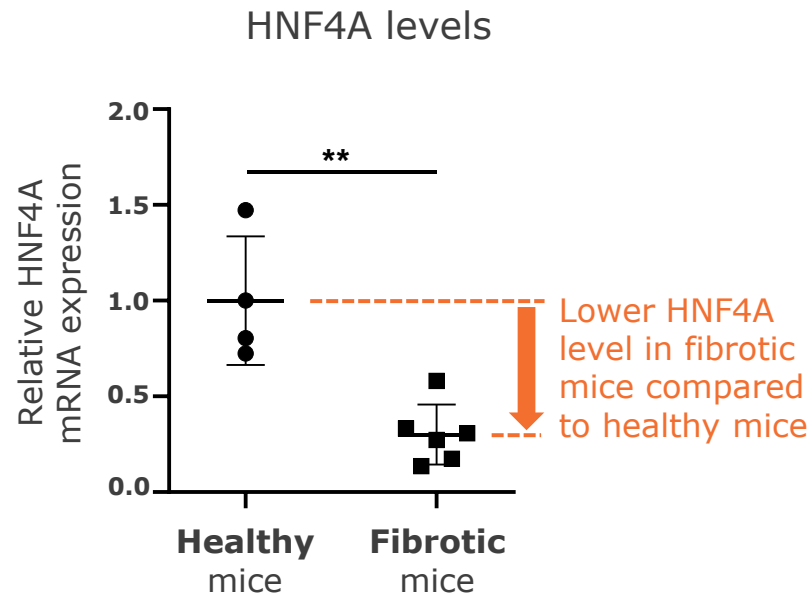
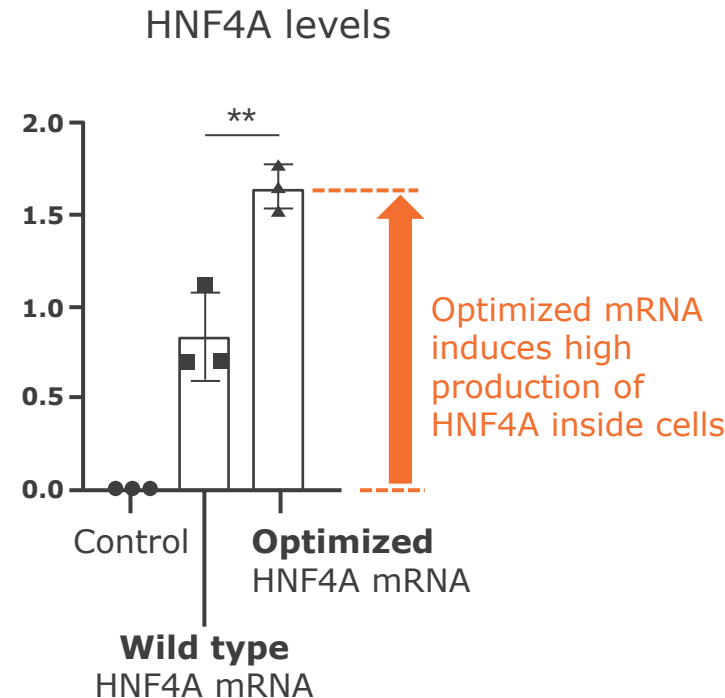
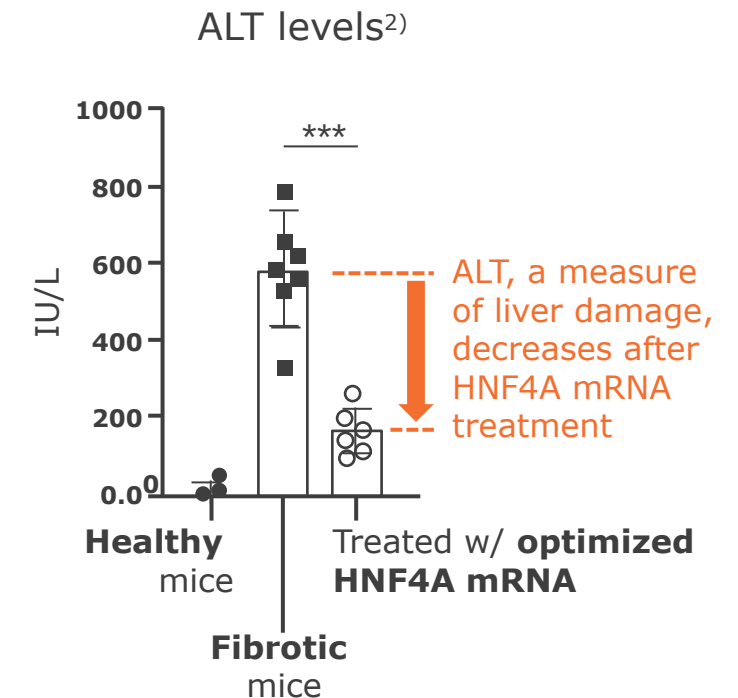
Molecular Therapy

Molecular Therapy: mRNA Encoding Key Protein in Liver Function Reduces Cell Damage and Attenuates Fibrosis

Liver fibrosis is characterized by a **decrease in transcription factor HNF4A levels**¹⁾

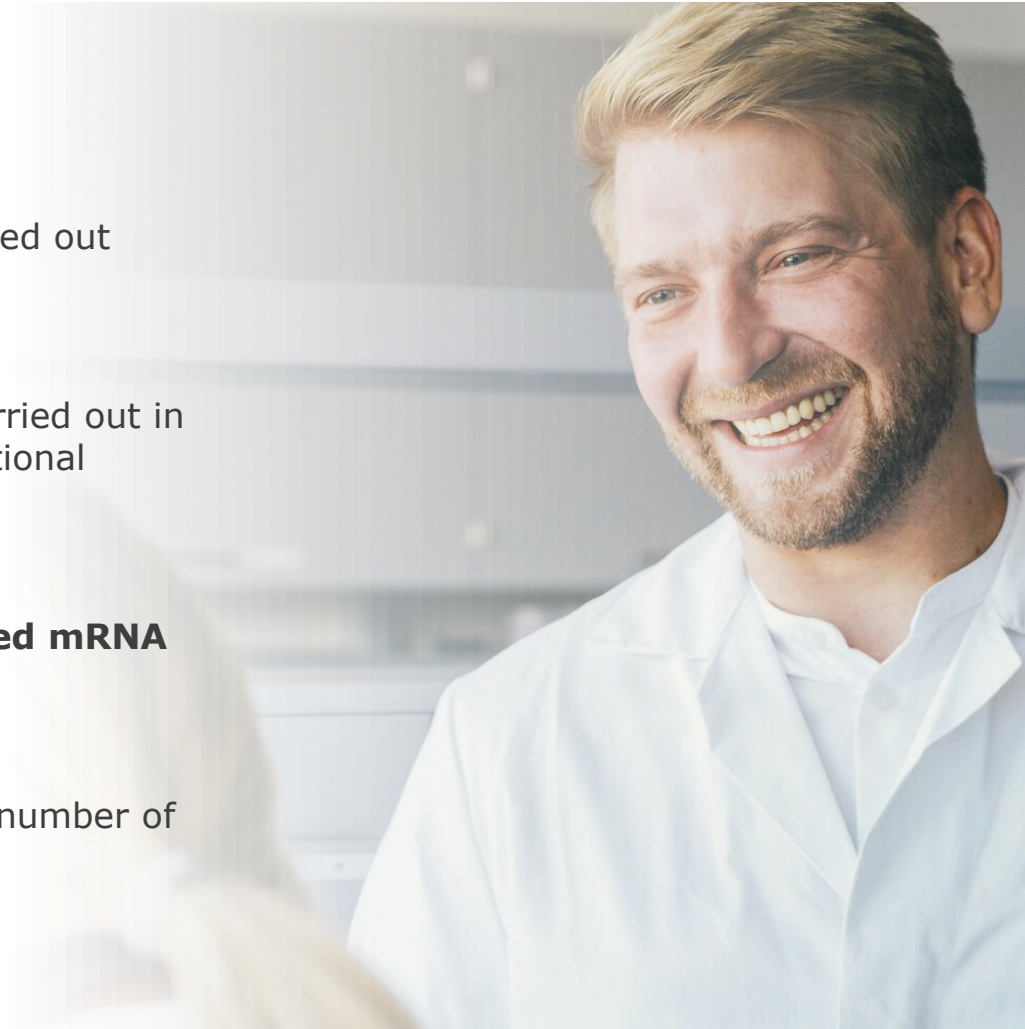
Optimized mRNA encoding for HNF4A is able to **increase HNF4A levels**

Restoring HNF4A levels **decreases fibrosis induced cell damage**



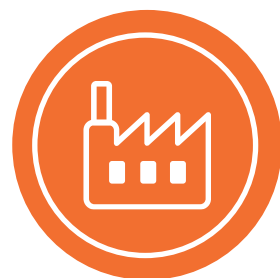
Key Messages for the Molecular Therapy Pipeline

- Research in our Molecular Therapy pipeline addressing rare diseases is carried out with **renowned academic institutions and industry partners**
- Recent research on mRNA approaches for liver fibrosis and cirrhosis was carried out in collaboration with **experts of the REBIRTH-Research Center** for Translational Regenerative Medicine at the Hannover Medical School
- The data shows the potential to **restore a missing proteins via a targeted mRNA** to repair an impaired liver metabolism
- We are strengthening our molecular therapy pipeline with new data from a number of research projects, **focusing on eye and liver diseases**



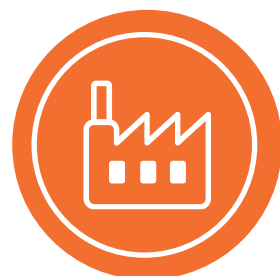


Internal & External Manufacturing Capabilities



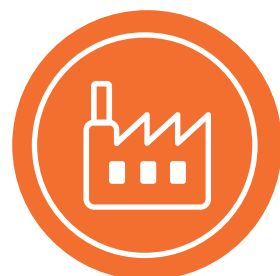
GMP I/II

- Fully online
- Located at headquarter
- Small-scale production
- Phase 1/2 supply



GMP III

- Fully online
- Located at headquarter
- Mid-scale production
- Phase 1-3 and initial commercial supply



GMP IV

- Interior construction ongoing
- Located at headquarter
- Industrial-scale production
- Phase 3 and commercial supply



European
network

mRNA production

Formulation

Fill & Finish

Packaging

GENERAL mRNA MANUFACTURING CHAIN

The RNA Printer®, Decentralized Mobile mRNA Production



RNA Printer® 2.0*



pDNA
production



mRNA
production

PANDEMIC PREPAREDNESS
in hospitals in outbreak regions

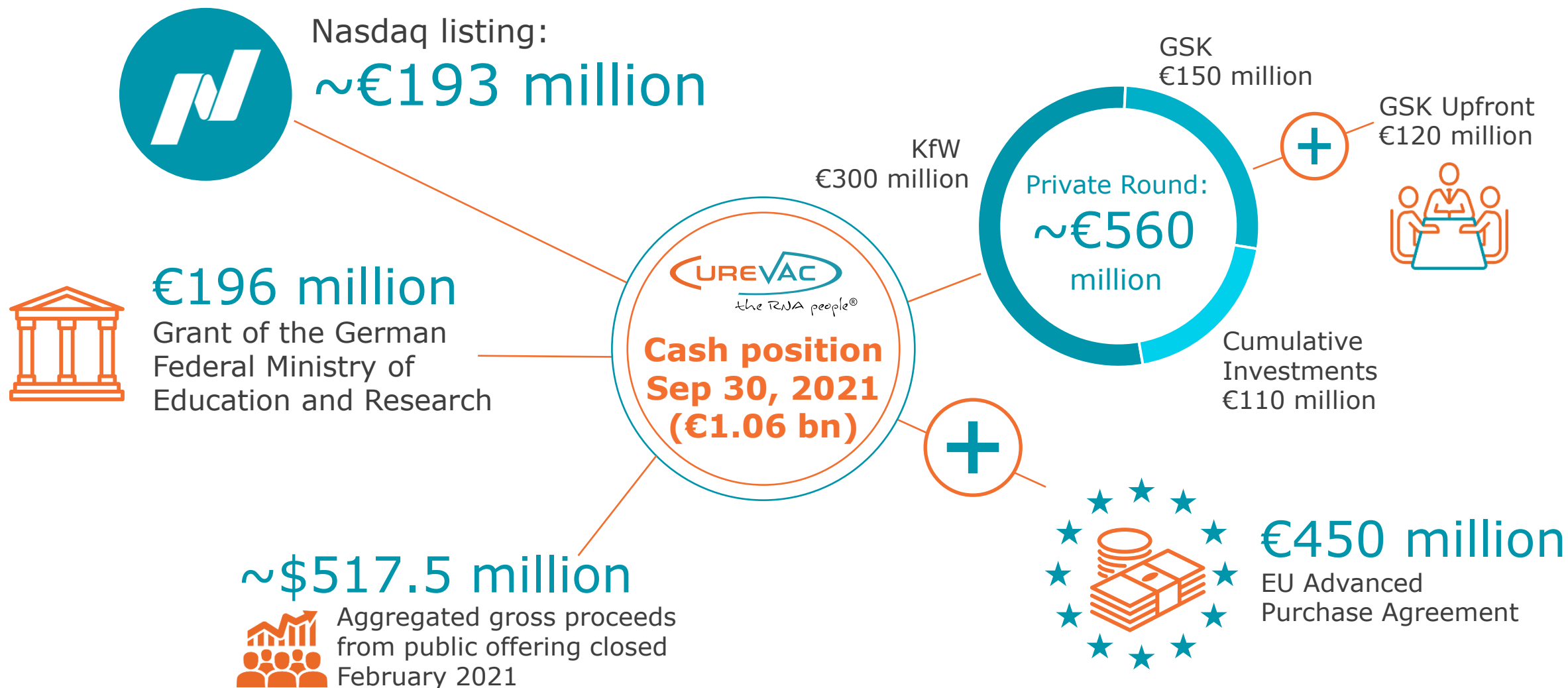
CUSTOMIZED, POINT OF CARE
mRNA vaccines and therapeutics

CLINICAL DEVELOPMENT
acceleration at lower costs

A bar chart with five vertical stacks of coins of varying heights, arranged from left to right in increasing order of height. The background is a light blue gradient with faint, stylized bar chart lines. A white rectangular box with a blue border is positioned over the middle of the chart, containing the word 'Financials' in blue text.

Financials

2020 and 2021: Our Financial Strength Enables Strong Company Development



Set Up of At-the-Market Facility*

Subject to market conditions,
option to offer shares worth up to
\$600million



If possible to use the at-the-market tool, **proceeds expected to support:**

Technology transition
from first- to second-generation

Accelerate Momentum
of RNA technology across therapeutic areas



Setting CureVac on a Trajectory to Grow in 2022 and Beyond

- mRNA technology is a **powerful armament** in the fight against infectious diseases and cancer – CureVac is an mRNA pioneer building on a strong **mRNA IP portfolio**
- In 2022, we are taking an **unrestricted technology approach** (modified / unmodified and monovalent / multivalent) to address different indications with optimal solutions
- In the therapeutic area of Prophylactic Vaccines, we have entered into a **close partnership with GSK** to advance our second-generation vaccine program
- We continue to **improve our manufacturing technologies** and build up **external, internal and mobile capacity**
- New members of the management board have brought in **deep international expertise and experienced leadership** to further grow the company
- We are **well financed with a favorable cash position** enabling us to **fuel our ongoing transformation**





**Thank you for your
attention**

CureVac
www.curevac.com