CureVac (DEU)

General Informations

Year founded: 2000

Location: **Headquarters**, Paul-Ehrlich-Straße 15, Tuebingen, 72076, Germany
Manufacturing Facility, Technologiepark, Tuebingen-Reutlingen, 72076, Germany
Clinical Development, Schumannstr. 27**,** 60325 Frankfurt, Germany
CureVac, US, 250 Summer St 3rd Fl**,** Boston, MA 02210, USA
(*U.S. operations have been launched in September 2015*)

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Website: https://www.curevac.com/, https://www.linkedin.com/company/curevac/
FTE: > 500

Management:

Ingmar Hoerr, PhD, CEO and Chairman of the Executive Board
ingmar.hoerr@curevac.com, https://www.linkedin.com/in/ingmar-hoerr-a677a86/
Ingmar Hoerr is the CEO since 2020. He founded CureVac in 2000 together with Florian von der Mülbe. He was elected in 2018 as the Chairman of the Supervisory Board and initially served as CEO and Head of Business Development from 2000 until 2018. He currently advises the European Commission as member of the High Level Group of Innovators in developing an European Innovation Council.

Franz-Werner Haas, LLD, LLM, COO
franz-werner.haas@curevac.com, https://www.linkedin.com/in/franz-werner-haas-7218a75/
Franz-Werner Haas joined CureVac in June 2012. Before joining CureVac, he was VP Operations and Chief Compliance Officer of Sygnis Pharma, where he was responsible for the execution of M&A and capital market transactions. He started his professional career as an assistant to the management of a privately-held

holding company before assuming several management positions in the Life Science Industry.

Florian von der Mülbe, PhD, Chief Production Officer
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Florian von der Mülbe is the CPO of CureVac since October 2018 and Managing Director of CureVac Real Estate since February 2017. He founded CureVac in 2000 together with Dr. Hoerr. Prior to his current position, he served as COO accountable for a variety of internal functions., but always including Technical Development and Manufacturing, where he established the first GMP (good manufacturing practice) production for mRNA worldwide.

Pierre Kemula, CFO
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Pierre Kemula is Curevac's Chief Financial Officer since 2016. Previously, he was the Chief Financial Officer of Pixium Vision, where he successfully contributed to the listing of the company on Euronext in Paris, and Vice President of Corporate Finance, Treasury and Financial Markets at Ipsen.

Bernd Winterhalter, MD, PhD, Interim CDO
bernd.winterhalter@curevac.com
Bernd Winterhalter is as consultant and interim manager with CureVac since June 2018 and interim Chief Development Officer since December 2019. Previously, he was the Executive Medical Director European Markets, Turkey & Russia of BMS from 2012 until 2018 and Executive Medical Director Germany from 2004 to 2011.

Mariola Fotin-Mleczek, PhD, CTO
https://de.linkedin.com/in/mariola-fotin-mleczek-b2153b12a
Mariola Fotin-Mleczek, joined CureVac in May 2006 and was responsible for the development and preclinical testing of mRNA technology applied in different therapeutic areas: oncology, infection diseases and protein therapy. She is the inventor of multiple mRNA technology related key patents and she authored more than 30 scientific publications with a focus on mRNA technology.

Alan Kimura, Head of Rare Diseases
alan.kimura@curevac.com
In February 2020, CureVac has appointed Alan Kimura MD, PhD as head of the newly created department "Rare Diseases". Within this department, Curevac unites the therapeutic areas "Molecular Therapies" and "Eye and Lung". This reorganization will synergize and strengthen CureVac's activities across these therapeutic fields. Prior to joining CureVac, Alan Kimura served as Chief Medical Officer at Enzyvant and SutroVax, and Vice President, Clinical Development at Translate Bio.

Ulrike Gnad-Vogt, SVP Head Oncology & Head of Translational Medicine
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Frederic Krohn, Senior Director Business Development
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Thorsten Schüller, Head of Communications
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Core Business in Gene Therapy

mRNA Therapeutics for the Treatment of Cancer, Infectious Diseases and Rare Diseases

Corporate Informations

CureVac is a leading company in the field of mRNA technology with more than 19 years' expertise in handling and optimising this versatile molecule for medical purposes. This **spin-off from XXXX** applies its technologies for the development of cancer therapies, prophylactic vaccines and molecular therapies. CureVac has developed several technologies with which it can specifically formulate and use RNA as the basic molecule in different ways:

- **RNActive®** (mRNA-based cancer immunotherapies and prophylactic vaccines against infectious diseases);
- **RNAntigen®** to provide highly immunogenic proteins;
- **RNArt®** (mRNA-based approach designed to trigger the body's own production of desired proteins for therapeutic purposes);

■ **RNAdjuvant®** – based on long-chain, non-coding RNA molecules, complexed with a short cationic peptide – developed to activate innate and adaptive immune system;

■ **RNAntibody®** to enable the prolonged expression of functional antibodies and antibody-like proteins from unmodified mRNA. This transient, reusable and safe passive immunization platform can be used in prophylactic and therapeutic settings for a range of indications.

CureVac has entered into collaborations with multinational corporations and organisations, including:

■ XXXX (lung cancer immunotherapy),
■ XXXX and **XXXX** (Cas9 mRNA constructs with improved properties for gene editing application),
■ **XXXX** Therapeutics (lipid-mediated delivery intellectual property),
■ **XXXX** (lipid nanoparticle (LNP) delivery systems),
■ **Genmab** (mRNA-based antibody therapeutics)
■ the **Bill & Melinda Gates Foundation** (mRNA-based vaccines against various infectious diseases),
■ the **Schepens Eye Research Institute of Massachusetts Eye and Ear** (mRNA-based candidates for undisclosed eye indications),
■ XXXX**y** (mRNA-based pulmonary therapeutic candidates).

In **February 2019**, Curevac has teamed up with the **XXXX** to further develop The RNA Printer™ prototyp, a transportable, down-scaled, **automated mRNA printing facility**. This innovative platform is capable of producing several grams of LNP-formulated mRNA within just a few weeks. It will provide a rapid supply of LNP-formulated mRNA vaccine candidates that can target known pathogens (including Lassa Fever, Yellow Fever, and Rabies) and prepare for rapid response to new and previously unknown pathogens (enough to produce more than a hundred thousand doses). This partnership agreement is worth up to US$ 34 million.

In **January 2020**, CureVac and XXXX announced a new collaboration to develop a vaccine against the new **coronavirus nCoV-2019**. The aim of the cooperation is to safely advance vaccine candidates into clinical testing as quickly as possible. The agreement built on the existing partnership between CureVac and CEPI to develop a rapid-response vaccine platform and includes additional initial funding of up to $8.3 million by CEPI for accelerated vaccine development, manufacturing and clinical tests.

-**Main Competitors Include**: XXXX, XXXX, XXXX, XXXX, XXXX, XXXX, XXXX.

Recent Fundings and Financial Highlights

-**Preparing for an U.S. IPO**
According to Bloomberg, CureVac is working with Bank of America and Jefferies Financial Group on a U.S. initial public offering. The company could raise US$150 million to US$200 million, valuing the company at US1 billion.

-**Total Funding Amount**: XXXX MUS$

Main shareholders and/or investors include: European Investment Bank (EU), Kreditanstalt für Wiederaufbau (DEU), XXXX, LBBW Asset Management (DEU), XXXX, XXXX, Northview LifeSciences (CAN), Baillie Gifford (GBR), XXXX.

-**Recent Fundings**:

-**JUL 2020:** XXXX M€ (Loan from European Investment Bank (EIB) for the development and large-scale production of vaccines, including CureVac's vaccine candidate against SARS-CoV-2)

-**JUN 2020**: XXXX MUS$ (Capital increase – investment by the Kreditanstalt für Wiederaufbau (KfW) for the Federal Republic of Germany)

-**NOV 2016**: 29.5 MUS$ (late stage venture)

-**NOV 2015**: 98.5 MUS$ (late stage venture)

-**MAR 2015**: 52 MUS$ (late stage venture)

-For the full year ended December 31, 2019

-**Entrerprise value**: XXXX BUS$

-**Revenue**: XXXX MUS$
-**Net loss**: XXXX MUS$
-**Cash**: XXXX MUS$

Pipeline

Fifteen Products/Programs in Oncology, Infectious Diseases, Liver Diseases, Lung Diseases and Ocular Diseases

Indication	Product	Type / Mechanism of action	Discovery Preclinical	Development Phase			Approved / Marketed
				Phase I	Phase II	Phase III	
mRNA-BASED CANCER IMMUNOTHERAPIES							
Non-small-cell lung carcinoma (NSCLC)	XXXX	XXXX	✓	✓			
XXXX	CV8102	XXXX	✓	✓			
NI	Tumor associated antigens (TAA)		✓				
Solid tumors	NI	mRNA intratumoral cocktail	✓				
PROTEIN-BASED THERAPIES							
NI	Cas9 mRNA constructs[2]		✓				
Liver metabolic disorders (rare diseases, fibrosis)	NI		✓				
Ocular diseases	NI[3]		✓				
Lung respiratory diseases	NI[4]		✓				
NI	Therapeutic antibodies[5]		✓				
mRNA-BASED PROPHYLACTIC VACCINES							

XXXX	CV7202, next generation formulation	XXXX	✓	I			
COVID-19	CVnCoV [6]	mRNA	✓	**XXXX**			
XXXX	NI[6]	mRNA	✓				
Respirational Syncitial Virus (RSV)	NI	mRNA	✓				
Diverse projects including Malaria, Rotaviruses	NI[7]	mRNA	✓				
Supra Seasonal Influenza	CV7301	mRNA - CV-SSIV, Second generation lipd nanoparticle (LNP) flu vaccine	✓				

[1] Partnered with XXXX
[2] Partnered with XXXX
[3] Partnered with Harvard Medical School and Schepens Eye Research Institute of Massachusetts Eye and Ear
[4] Partnered with Yale University School of Medicine
[5] Partnered with XXXX
[6] Partnered with XXXX
[7] Partnered with The Bill & Melinda Gates Foundation

Clinical Trials

Four Products in Infectious Diseases and in Oncology

ID	Product	Phase and status	Start / Completion Date	Planned enrollment	Results / Comments	Indication	Collab. Nb of sites	Other ID	Last Update
NCT03713086	CV7202	I Active, not recruiting	OCT 2018/ JAN 2023	XXXX		Rabies	2 locations (BEL, DEU)	CV-7202-104/2017-002856-10	MAR 2020
XXXX	CVnCoV	XXXX	JUN 2020/ AUG 2021	XXXX	XXXX	COVID-19	XXXX	CV-NCOV-001/2020-001286-36	JUL 2020
XXXX	CV8102	XXXX	SEP 2017/ FEB 2023	XXXX	XXXX	Advanced melanoma, squamous cell carcinoma of the skin, squamous cell carcinoma of the head and neck, or adenoid cystic carcinoma	15 locations (DEU, ESP, FRA)	CV-8102-008	APR 2020
NCT03164772	BI 1361849	I/II Recruiting	DEC 2017/ DEC 2024	56	The study evaluates safety and preliminary efficacy of the addition of vaccine therapy BI 1361849 to 1 or 2 checkpoint inhibitors (durvalumab, tremelimumab)	XXXX	XXXX		MAR 2020

Latest Developments

Date	Subject / Title	Partner	Comments / Link
JUL 2020	GSK injects $293M cash into CureVac, forging a deal to develop new mRNA vaccines and antibodies		Endpoint News
JUN 2020	XXXX		XXXX
XXXX	CureVac´s Optimized mRNA Platform Provides Positive Pre-Clinical Results at Low Dose for Coronavirus Vaccine Candidate		XXXX
APR 2020	XXXX		XXXX has been appointed as the new Chairman with immediate effect. He has been a member of the Board since September 2015. Jean Stéphenne, MSc, MBA, is former Chairman and President of GSK Biologicals. (XXXX)
MAR 2020	CureVac focuses on the development of mRNA-based coronavirus vaccine to protect people worldwide		(Press Release)
JAN 2020	XXXX	XXXX	The aim of the cooperation is to safely advance vaccine candidates into clinical testing as quickly as possible. The agreement will build on the existing partnership between CureVac and XXXX to develop a rapid-response vaccine platform. (XXXX)
JAN 2020	CureVac Announces Positive Results in Low Dose – 1 µg – Rabies Vaccine Clinical Phase 1 Study		XXXX

DEC 2019	XXXX	XXXX (DK)	XXXX
DEC 2019	CureVac Granted Manufacturing Authorization for its Third GMP Production Suite		(Press Release)
AUG 2019	CureVac Enters into an Exclusive Collaborative Research Agreement for Discovery Research in mRNA-based Lung Therapy Candidates with XXXX	XXXX	XXXX)
JUN 2019	CureVac Welcomes Two Members to its Supervisory Board		XXXX
JUN 2019	XXXX		XXXX

Latest Related Publications/Results

Reference	Authors, Location	Results / Comments	Link
***Hum Vaccin Immunother*. 2020 Apr 29:1-6.**	Colindres R et al. GSK, Rockville, MD, USA	XXXX	XXXX
XXXX	Hauser S et al. German Center for Neurodegenerative Diseases (DZNE), 72076 Tübingen, Germany	mRNA as a Novel Treatment Strategy for Hereditary Spastic Paraplegia Type 5	XXXX
XXXX.	Sebastian M et al. University Medical Center of the Johannes Gutenberg-University, Mainz, Germany.	A phase I/IIa study of the mRNA-based cancer immunotherapy CV9201 in patients with stage IIIB/IV non-small cell lung cancer.	Abstract
XXXX	Lindsay KE et al. Wallace H. Coulter Department of Biomedical Engineering, Georgia Tech and Emory University, Atlanta, GA, USA.	Visualization of early events in mRNA vaccine delivery in non-human primates via PET-CT and near-infrared imaging.	XXXX
XXXX	Schlake T et al. CureVac, 72076 Tübingen, Germany	XXXX.	XXXX