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 OF THE SECURITIES EXCHANGE ACT OF 1934

For the month of March, 2022

Commission File Number: 001-39446

CureVac N.V.

(*Exact Name of Registrant as Specified in Its Charter*)

Friedrich-Miescher-Strasse 15, 72076
Tübingen, Germany
+49 7071 9883 0
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ☒ Form 40-F ☐

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):

Yes ☐ No ☒

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):

Yes ☐ No ☒

On March 30, 2022, CureVac N.V. (the "Company") issued a press release announcing that the first participant was dosed in a Phase 1 study of COVID-19 second-generation mRNA vaccine candidate, CV2CoV, developed in collaboration with GSK. The clinical trial is expected to provide valuable data to further evaluate the performance of CureVac's second-generation mRNA backbone, which has the potential to be applied broadly in future vaccines against COVID-19 variants and other pathogens.

The information included in this Form 6-K (including Exhibit 99.1, but excluding the statements of the Company's Chief Development Officer contained in Exhibit 99.1 hereto) is hereby incorporated by reference into the Company's Registration Statement on Form F-3 (File No. 333-259613).

SIGNATURES

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.

CUREVAC N.V.

By: /s/ Franz-Werner Haas, LLD, LLM
Chief Executive Officer

Date: March 30, 2022

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
99.1	CureVac N.V. Press Release dated March 30, 2022.

CureVac and GSK Start Clinical Development of Second-Generation COVID-19 Vaccine Candidate, CV2CoV

- *Phase 1 dose-escalation study started at clinical sites in the U.S.*
- *Milestone demonstrates CureVac's and GSK's continued execution on comprehensive clinical program of second-generation vaccine candidates for infectious diseases*

TÜBINGEN, Germany/ BOSTON, USA – March 30, 2022 – CureVac N.V. (Nasdaq: CVAC), a global biopharmaceutical company developing a new class of transformative medicines based on messenger ribonucleic acid ("mRNA"), today announced that the first participant was dosed in a Phase 1 study of COVID-19 second-generation mRNA vaccine candidate, CV2CoV, developed in collaboration with GSK. The clinical trial is expected to provide valuable data to further evaluate the performance of CureVac's second-generation mRNA backbone, which has the potential to be applied broadly in future vaccines against COVID-19 variants and other pathogens.

A preclinical study of CV2CoV in cynomolgus macaques, published in *Nature* in November 2021, demonstrated rapid induction of higher antibody titers, better induction of immune memory and stronger protective efficacy of CV2CoV compared to CureVac's first-generation vaccine candidate, CVnCoV. The same study demonstrated comparable neutralizing antibody titers in animals fully vaccinated with either 12µg of CV2CoV or a 30µg standard dose of a licensed mRNA COVID-19 vaccine.

"Continued innovation and progress in the development of mRNA-based vaccines is a critical prerequisite to combat the evolving COVID-19 pandemic and to further extend the possibilities of mRNA technology to a broad range of indications," said Dr. Klaus Edvardsen, Chief Development Officer of CureVac. "Our second-generation mRNA backbone was engineered to enable faster and stronger immune responses than our first-generation vaccine. This Phase 1 trial of CV2CoV will provide clinical data to further establish this backbone as a basis to flexibly address not only different COVID-19 variants, but also a range of other diseases and potential combination vaccines."

The Phase 1 dose-escalation study is being conducted at clinical sites in the U.S. and is expected to enroll up to 210 healthy adults to evaluate the safety, reactogenicity and immunogenicity of CV2CoV in the dose range of 2 to 20µg. Data results from the Phase 1 study are expected in the second half of 2022. The program follows the recent start of the Phase 1 clinical study for the jointly developed seasonal influenza vaccine candidate, CVSQIV, also applying the optimized second-generation mRNA backbone.

The CureVac-GSK infectious disease collaboration was first announced in July 2020 and focuses on the development of new products based on CureVac's mRNA technology for different targets in the field of infectious diseases. In 2022, both companies have broadened their development strategy to test chemically modified mRNA technologies in addition to unmodified mRNA. Clinical programs with chemically modified mRNA for COVID-19 and influenza are expected to start later this year.

About CV2CoV
CV2CoV is CureVac's first COVID-19 vaccine candidate based on the advanced second-generation mRNA backbone from the broad second-generation program, currently developed in collaboration with GSK. The vaccine candidate is a non-chemically modified mRNA, encoding the prefusion stabilized full-length spike protein of the SARS-CoV-2 virus, and formulated within Lipid Nanoparticles (LNPs). CV2CoV was engineered with specifically optimized non-coding regions to exhibit improved mRNA translation for increased and extended protein expression compared to the first-generation mRNA backbone. A clinical study to test the use of chemically modified mRNA is expected to begin later this year.

About CureVac
CureVac is a global biopharmaceutical company in the field of messenger RNA (mRNA) technology, with more than 20 years of expertise in developing, optimizing and manufacturing this versatile biological molecule for medical purposes. The principle of CureVac's proprietary technology is the use of optimized mRNA as a data carrier to instruct the human body to produce its own proteins capable of fighting a broad range of diseases. In July 2020, CureVac entered into a collaboration with GSK to jointly develop new products in prophylactic vaccines for infectious diseases based on CureVac's second-generation mRNA technology. This collaboration was later extended to the development of second-generation COVID-19 vaccine candidates and modified mRNA vaccine technologies. Based on its proprietary technology, CureVac has built a deep clinical pipeline across the areas of prophylactic vaccines, cancer therapies, antibody therapies, and the treatment of rare diseases. CureVac had its initial public offering on the New York Nasdaq in August 2020. It is headquartered in Tübingen, Germany, and employs more than 900 people across its sites in Tübingen, Frankfurt, and Boston, USA. Further information can be found at www.curevac.com.

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Forward-Looking Statements CureVac

This press release 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 opinions, expectations, beliefs, plans, objectives, assumptions or projections of CureVac N.V. and/or its wholly owned subsidiaries CureVac AG, CureVac Real Estate GmbH, CureVac Inc., CureVac Swiss AG and CureVac Corporate Services GmbH (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 press release 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.