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 August 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 August 18, 2022, CureVac N.V. (the "Company") issued a press release announcing the start of a Phase 1 study of the modified COVID-19 mRNA vaccine candidate CV0501, developed in collaboration with GlaxoSmithKline ("GSK"). The vaccine candidate is based on the Company's second-generation mRNA backbone and is designed to specifically protect against the Omicron variant.

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: August 18, 2022

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
99.1	CureVac N.V. Press Release dated August 18, 2022.

Exhibit 99.1

CureVac Starts Phase 1 Clinical Study of Modified, Omicron-Targeting COVID-19 Vaccine Candidate

- *Phase 1 dose-escalation study to be conducted at clinical sites in the U.S., the UK, Australia, and the Philippines*

- *Milestone demonstrates CureVac's continued execution on comprehensive clinical program of second-generation vaccine candidates for infectious diseases*

TÜBINGEN, Germany/ BOSTON, USA – August 18, 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 the start of a Phase 1 study of the modified COVID-19 mRNA vaccine candidate CV0501, administered as a booster dose to previous COVID-19 vaccination. Developed in collaboration with GSK, CV0501 is based on CureVac's second-generation mRNA backbone and is designed to specifically protect against the Omicron variant.

"Licensed COVID-19 vaccines that encode for the original virus variant, continue to protect against severe disease and hospitalization, but they are increasingly challenged by immune evasion of new variants such as Omicron," said CureVac interim Chief Development Officer Dr. Ulrike Gnad-Vogt. "As we extend the clinical studies of our second-generation backbone into modified mRNA, targeting the Omicron variant will further explore the full potential of our improved second-generation design as a booster vaccination for a relevant variant."

The CV0501 study follows the start of a Phase 1 study in March 2022 that evaluates an unmodified second-generation COVID-19 vaccine candidate CV2CoV, encoding for the original virus variant. The comprehensive approach to evaluate both an unmodified and a modified, second-generation vaccine candidate against COVID-19 is expected to identify the best-performing candidate for later-stage clinical development. In line with this approach, data from both studies are expected to be reported as a combined data set.

The Phase 1 dose-escalation study will be conducted at clinical sites in the U.S., the UK, Australia, and the Philippines and is expected to enroll up to 180 healthy, COVID-19-vaccinated adults to evaluate the safety, reactogenicity and immunogenicity of a single booster dose of CV0501 in the dose range of 12µg to 50µg. Additional dose levels below 12µg and above 50µg may be evaluated if supported by safety and immunogenicity data at these dose levels.

COVID-19 studies are being conducted alongside CureVac and GSK's jointly developed influenza vaccine program, in which clinical evaluation of the unmodified seasonal influenza candidate CVSQIV and the modified candidate FLU SV mRNA have similarly been initiated.

The CureVac-GSK infectious disease collaboration was first announced in July 2020. It focuses on the development of new products based on CureVac's mRNA technology for different targets in the field of infectious diseases. The collaboration was extended in February 2021 to also include jointly developed vaccine candidates for COVID-19. In 2022, the companies broadened their development strategy to test modified mRNA technologies in addition to unmodified mRNA.

About CV0501

CV0501 is CureVac's first COVID-19 vaccine candidate applying chemically modified mRNA from the COVID-19 vaccine program developed in collaboration with GSK. It is based on CureVac's advanced second-generation mRNA backbone. CV0501 encodes for the prefusion stabilized full-length spike protein of the SARS-CoV-2 Omicron variant and is formulated within lipid nanoparticles (LNPs). As for all vaccines candidates applying the second-generation mRNA backbone, CV0501 was designed 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 testing the use of an unmodified mRNA candidate, CV2CoV, in SARS-CoV-2 is currently being conducted in the U.S.

About CureVac

CureVac (Nasdaq: CVAC) 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 in 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 N.V. has its headquarters in Tübingen, Germany, and has more than 1,000 employees across its sites in Germany, the Netherlands, Belgium, Switzerland and the U.S. 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 Manufacturing GmbH, CureVac Inc., CureVac Swiss AG, CureVac Corporate Services GmbH, CureVac RNA Printer GmbH, CureVac Belgium SA and CureVac Netherlands B.V. (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.