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 December 2020

Commission File Number 001-39446

CureVac N.V.

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

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):

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):

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934:

YES D NO 🗵

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-____

On December 21, 2020, CureVac N.V. (the "Company") issued a press release announcing the start of the Phase 3 clinical trial for the Company's COVID-19 vaccine candidate, CVnCoV, in healthcare workers at the University Medical Center Mainz. The press release is attached hereto as Exhibit 99.1.

The information in this Form 6-K (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act.

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: December 21, 2020

EXHIBIT NO. DESCRIPTION

99.1 CureVac N.V. Press Release dated December 21, 2020.



CureVac and the University Medical Center Mainz Start Phase 3 Clinical Trial for COVID-19 Vaccine Candidate, CVnCoV, in Healthcare Workers

- Study to assess safety and immunogenicity of CVnCoV in high-risk population group
- · Study builds on observational epidemiological study

TÜBINGEN, Germany/ BOSTON, USA – December 21, 2020 – CureVac N.V. (Nasdaq: CVAC), a global clinical-stage biopharmaceutical company developing a new class of transformative medicines based on messenger ribonucleic acid (mRNA), announced today that the first participant in a clinical Phase 3 study with its COVID-19 vaccine, CVnCoV, in healthcare workers at the University Medical Center Mainz will be vaccinated on December 22, 2020. The study aims to evaluate the safety and immunogenicity of CVnCoV administered as a two-dose schedule of 12 µg. The trial follows an epidemiological, non-interventional study conducted with healthcare workers from the University Hospital in Mainz.

"With this clinical study in healthcare workers, we aim to investigate the difference our vaccine candidate can make in this specific group of individuals who are at particularly high risk of potential infection due to viral exposure," said Dr. Lidia Oostvogels, Head of Infectious Diseases of CureVac. "Based on this trial, we hope to gain additional insights for effective prevention of COVID-19 in this vulnerable population."

The randomized, observer blind, placebo-controlled clinical Phase 3 study will include more than 2,500 subjects, 18 years of age and older, who will be randomized into this study out of the non-interventional trial. It complements the recent initiation of CureVacs global pivotal Phase 2b/3 trial, HERALD, for CVnCoV in more than 35,000 participants.

The Phase 3 study builds on a non-interventional study on COVID-19 at the University Hospital Mainz involving 3,600 hospital employees, including medicine and dentistry students in their 5th semester or higher. The study has been ongoing for several months and investigates the distribution (epidemiology) of COVID-19 in a collective of employees of a University Hospital. It focuses on the rate at which SARS-CoV-2-specific antibodies arise and can be detected in hospital employees as well as the frequency of virologically confirmed COVID-19 cases in this cohort of hospital employees.

About CVnCoV

CureVac began development of its mRNA-based COVID-19 vaccine candidate in January 2020. The compound is an optimized, non-chemically modified mRNA, encoding the prefusion stabilized full-length spike protein of the SARS-CoV-2 virus. Phase 1 and 2a clinical trials of CVnCoV began in June and September 2020, respectively. Phase 1 interim data reported in November 2020 showed that CVnCoV was generally well tolerated across all tested doses and induced strong antibody responses in addition to first indication of T cell activation. The quality of immune response was comparable to recovered COVID-19 patients, closely mimicking the immune response after natural COVID-19 infection. The data supported CureVac's decision to advance a 12µg dose in its pivotal Phase 2b/3 study. Clinical trial material is provided by the company's substantial production capacities for mRNA vaccines at its headquarters in Tübingen, supported by the current expansion of manufacturing capacities in Europe to allow for broad-scale manufacturing of CVnCoV for potential commercial supply preparedness.

About CureVac

CureVac is a global clinical-stage biopharmaceutical company in the field of messenger RNA (mRNA) technology, with more than 20 years of expertise in developing and optimizing the versatile biological molecule for medical purposes. The principle of CureVac's proprietary technology is the use of non-chemically modified mRNA as a data carrier to instruct the human body to produce its own proteins capable of fighting a broad range of diseases. Based on its proprietary technology, the company 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 500 people at its sites in Tübingen, Frankfurt, and Boston, USA. Further information can be found at www.curevac.com.

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Forward-Looking Statements

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 (the "company") regarding future events or future results, in contrast with statements that reflect historical facts. Examples include discussion of 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.