
**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 October 2020

Commission File Number 001-39446

CureVac N.V.

**Friedrich-Miescher-Strasse 15, 72076
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(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 NO

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

On October 23, 2020, CureVac N.V. (the “Company”) issued a press release reporting preclinical data for its COVID-19 vaccine candidate, CvnCoV, in mice and hamsters. 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: October 23, 2020

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
99.1	CureVac N.V. Press Release dated October 23, 2020.



CureVac Reports Positive Preclinical Data for its COVID-19 Vaccine Candidate, CVnCoV

- *Strong induction of antibody and T cell responses in animal models*
- *Protection of the lung, reduction of viral load in nose and throat in challenge studies*
- *Favorable safety profile with no evidence of vaccine-enhanced disease*

TÜBINGEN, Germany/ BOSTON, USA – October 23, 2020 – CureVac N.V. (Nasdaq: CVAC), a clinical-stage biopharmaceutical company developing a new class of transformative medicines based on messenger ribonucleic acid (“mRNA”), today announced data from preclinical studies of its investigational SARS-CoV-2 vaccine candidate, CVnCoV, in mice and hamsters. The vaccine candidate elicited balanced humoral and cellular immune responses, featuring high antibody titers and very good T cell activation. In addition to the positive immune response, the vaccine candidate induced favorable Th1 cytokine levels. Furthermore, CVnCoV efficiently protected hamsters against a live SARS-CoV-2 viral challenge without evidence of vaccine-induced disease enhancement. The full manuscript of the preclinical data is available on the pre-print server bioRxiv and was submitted for potential publication in a peer-reviewed journal. This vaccine candidate is currently being investigated in a Phase 1 and Phase 2a clinical trial. Interim Phase 1 data is expected to be announced shortly.

CVnCoV demonstrated dose-dependent activation of the humoral immune system in mice at doses of 0.25, 1 and 4µg. Strong IgG1 and IgG2a binding antibody titers were observed at all doses and translated efficiently into neutralizing antibodies that were detected even at the lowest dose. Neutralizing antibodies started to develop 3 weeks after the first vaccination and strongly increased after the second vaccination.

The impact of different dosing schedules for the two-injection (prime and boost) regimen was investigated at 2µg with 1, 2, 3, or 4 weeks between the first and second vaccination. The data showed induction of IgG1 and IgG2a binding antibodies 7 days after the first vaccination. Titers increased after the second vaccination, showing higher response levels with longer injection intervals. Binding antibodies efficiently translated into neutralizing antibodies, which started to develop 4 weeks after the first vaccination and significantly increased after the second vaccination.

Efficient induction of neutralizing antibodies was in line with favorable IgG2a/IgG1 ratios, indicating a balanced Th1/Th2 profile. There was no evidence of a Th2-biased immune response, which is associated with a potential vaccine induced disease enhancement.

“The preclinical data published today shows that our lead COVID-19 vaccine candidate has the potential to induce an efficacious and balanced immune response, mimicking the natural immune defense and providing lung protection in a relevant challenge model,” Dr. Mariola Fotin-Mleczek, Chief Technology Officer of CureVac, said. “The study adds to our understanding of CVnCoV, which is currently being evaluated in Phase 1 and 2a clinical trials.”

CVnCoV-vaccinated mice showed positive induction of multifunctional IFNγ⁺/TFN⁺ CD4⁺ and CD8⁺ T cells. Both of which have been detected in COVID-19 convalescent patients, with CD4⁺ T cells being important for the generation of memory B cells. Mean values of CD4⁺ and CD8⁺ T cells amounted to 0.34% and 10.5%, respectively, after vaccination at Day 0 and 28, and also benefitted from longer injection intervals.

The potential protective efficiency of CVnCoV was demonstrated in Syrian hamsters, representing an established animal model to investigate human-relevant immunogenicity and pathogenesis. Vaccine dose of 10µg in hamsters showed very good reduction in replicating virus levels in the upper respiratory tract and complete lung protection in treated animals. Following viral challenge, lungs of vaccinated animals showed no evidence of disease enhancement.

About CVnCoV

CureVac first began development of its mRNA-based COVID-19 vaccine candidate in January 2020. The compound is based on optimized, non-chemically modified mRNA, encoding the prefusion-stabilized full spike protein of the SARS-CoV-2 virus. Formulation of CVnCoV is based on state-of-the-art lipid nanoparticle (LNP) technology licensed from the company's partner, Acuitas. The company began a Phase 1 clinical study of CVnCoV in June 2020 at clinical study centers in Germany and Belgium in collaboration with the Coalition for Epidemic Preparedness Innovations (CEPI). At the end of September 2020 the vaccine candidate entered a Phase 2a clinical trial in Peru and Panama, further extending clinical studies into older adults and regions with high incidence of COVID-19 infections. The company plans to initiate a pivotal Phase 2b/3 clinical study by the end of 2020. Clinical trial material is provided by the company's substantial production capacities for mRNA vaccines at its headquarters in Tübingen. CureVac is currently expanding those manufacturing capacities 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 this 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 approximately 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.
