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 January 2024

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 ☐

On January 5, 2024, CureVac N.V. (the "Company") issued a press release announcing positive Phase 2 interim data from its COVID-19 vaccine development program in collaboration with GSK.

The information included in this Form 6-K (including Exhibits 99.1 and 99.2, 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/ Alexander Zehnder
Chief Executive Officer

Date: January 5, 2024

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
99.1	CureVac N.V. Press Release dated January 5, 2024
99.2	Interim Phase 2 Data from COVID-19 Development Program in Collaboration with GSK

CureVac Announces Positive Phase 2 Interim Data from COVID-19 Vaccine Development Program in Collaboration with GSK Providing Strong Validation of Proprietary Technology Platform

- Head-to-head comparison with licensed bivalent mRNA-based comparator vaccine confirms competitive immune responses at lower doses and favorable tolerability profile
- Monovalent mRNA vaccine candidate, CV0601, encoding Omicron BA.4-5 variant and bivalent candidate, CV0701, encoding Omicron BA.4-5 variant as well as the original SARS-CoV-2 virus, successfully boosted antibody titers and were generally well tolerated across all tested dose levels

TÜBINGEN, Germany/BOSTON, USA – January 5, 2024 – CureVac N.V. (Nasdaq: CVAC) ("CureVac"), a global biopharmaceutical company developing a new class of transformative medicines based on messenger ribonucleic acid ("mRNA"), today announced positive interim data from the ongoing Phase 2 study assessing monovalent and bivalent modified vaccine candidates against COVID-19. Both vaccine candidates are being developed in collaboration with GSK. Selected data can be reviewed in the presentation associated with this press release.

Results from the formal interim analysis showed that both vaccine candidates using CureVac's proprietary second-generation mRNA backbone produced meaningful immune responses and favorable reactogenicity profiles across all tested doses, including the lowest tested dose. All three of the dose levels tested were below those used in mRNA-based COVID-19 vaccines licensed in the U.S. and EU.

"These positive Phase 2 data continue to strongly validate the competitiveness of our proprietary mRNA-technology platform and second-generation mRNA backbone in comparison to a licensed mRNA-based vaccine," said Dr. Myriam Mendila, Chief Development Officer of CureVac. "We are greatly encouraged by the strong immunogenicity results achieved for our COVID-19 mRNA vaccine candidates and are in advanced discussions with regulatory authorities to determine the best path forward for a pivotal Phase 3 study. With this, we advance our joint COVID-19 development program along with our joint flu vaccine program, which continues to progress steadily as well."

The Phase 2 study assesses the safety and immunogenicity of different single booster doses of monovalent vaccine candidate CV0601, encoding the spike protein of the Omicron BA.4-5 variant and bivalent vaccine candidate CV0701, encoding the spike protein of the Omicron BA.45 variant and original SARS-CoV-2 virus. Safety and immunogenicity were assessed in comparison to a licensed bivalent mRNA-based COVID-19 comparator vaccine. While the monovalent candidate CV0601 was tested at a single medium dose level, the bivalent candidate CV0701 was tested at low, medium, and high dose levels. The study is being conducted in Australia and is fully enrolled with 427 healthy adults aged 18 and older equally randomized between dose groups.

Reactogenicity data cover all dose groups for both vaccine candidates. The vaccine candidates were shown to be generally well tolerated with a lower or similar proportion of participants reporting solicited adverse events when compared to comparator vaccine participants within seven days of dosing.

Interim immunogenicity data showed meaningful titers of neutralizing antibodies for both candidates at all dose levels. Titers of neutralizing antibodies matched or numerically exceeded the titers induced by the licensed comparator vaccine at all tested doses except for the low dose level of CV0701.

The monovalent candidate CV0601, which was tested at a medium dose level, elicited neutralizing antibody titers against the Omicron BA.4-5 variant on day 29 following the booster vaccination that were 5.0 times the pre-boosting titers, numerically exceeding the 3.6-fold ratio generated by the licensed comparator vaccine.

For the low, medium, and high dose levels tested for the bivalent candidate CV0701, neutralizing antibody titers against BA.4-5 on day 29 following the booster vaccination were 2.7-fold, 3.7-fold and 4.6-fold the titers before the booster, compared to a 3.6-fold ratio of post- to prebooster titers for the comparator vaccine.

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 1,100 employees across its sites in Germany, the Netherlands, Belgium, Switzerland and the U.S. Further information can be found at www.curevac.com.

CureVac Media and Investor Relations Contact

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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 SE, 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, fluctuations of operating results due to the effect of exchange rates, delays in litigation proceedings, different judicial outcomes 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.


CUREVAC
the RNA people®
Interim Phase 2 Data from COVID-19 Development Program in Collaboration with GSK
January 5, 2024

Forward-Looking Statements

The information set forth herein does not purport to be complete or to contain all of the information you may desire. Statements contained herein are made as of the date of this document unless stated otherwise, and neither the delivery of this document at any time, nor any sale of securities, shall under any circumstances create an implication that the information contained herein is correct as of any time after such date or that information will be updated or revised to reflect information that subsequently becomes available or changes occurring after the date hereof.

This presentation of CureVac N.V. (the "company") 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 company's opinions, expectations, beliefs, plans, objectives, assumptions or projections of 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 presentation 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.

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COVID-19 Vaccine Development Program: Summary Phase 2 Setup

Phase 2 Study Details

- **CV0701**
  - Bivalent candidate
  - Encoding the spike protein of BA.4-5 and the original SARS-CoV-2 virus
- **CV0601**
  - Monovalent candidate
  - Encoding the spike protein of BA.4-5
- Licensed bivalent mRNA **comparator vaccine**
- Study **fully enrolled**
- Study conducted in **Australia**

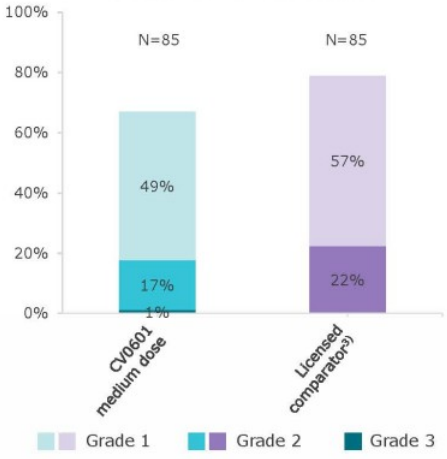
Phase 2 Study Design

427 healthy adult participants aged 18 and older equally randomized between groups

CV0701	high dose	✓
CV0701	medium dose	✓
CV0701	low dose	✓
Licensed bivalent mRNA comparator		✓
CV0601	medium dose	✓

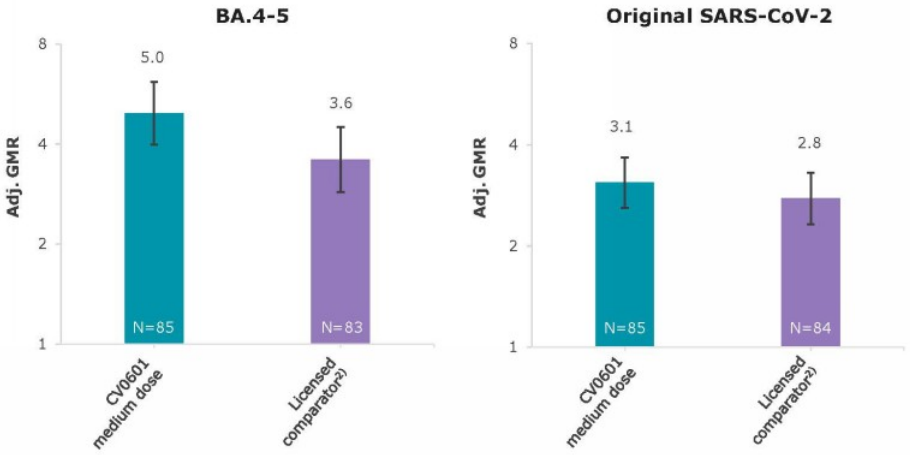
CV0601: Monovalent Candidate Encoding Omicron BA.4-5

CV0601: Reactogenicity profile



CV0601: Adjusted[1)] geometric mean ratios of neutralizing antibodies titers

Day 29 post- to pre-boost titers



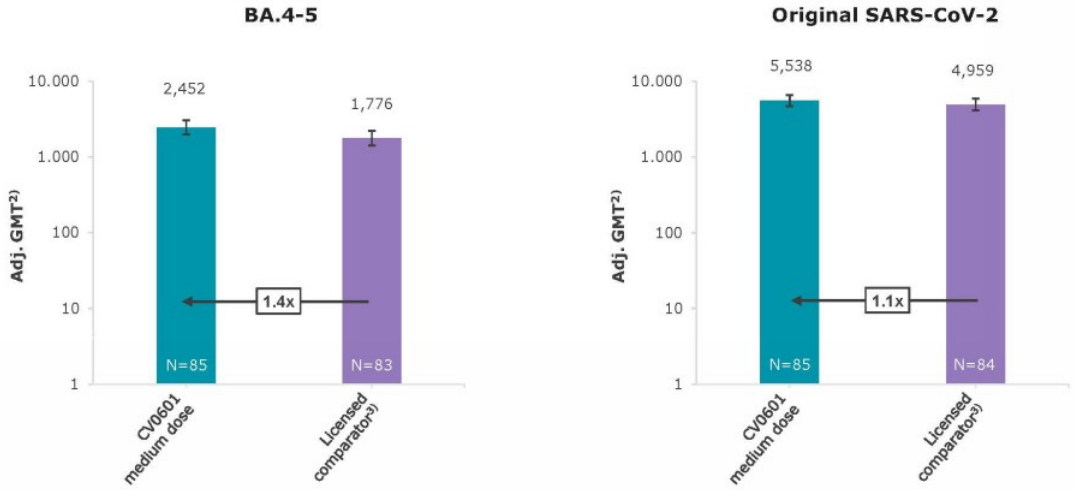
CV0601 exhibits favorable tolerability profile and induces robust antibody boosts

GMR: Geometric mean ratio from day 1

1) GMR and confidence intervals are adjusted for baseline titer, age at baseline (<65 or ≥65) and prior SARS-CoV-2 infection
2) Licensed bivalent, mRNA-based comparator vaccine

CV0601: Adjusted[1)] geometric mean titers of neutralizing antibodies

Day 29 post vaccination



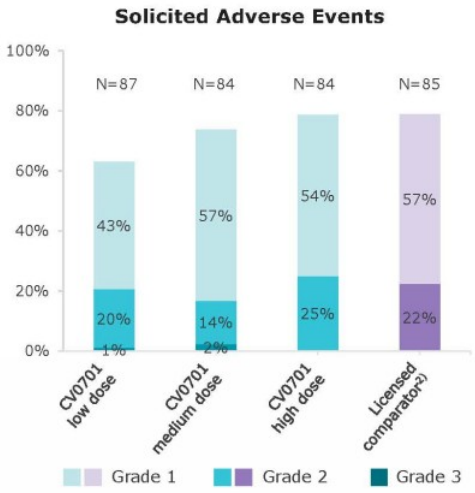
CV0601 elicits robust antibody responses against BA.4-5 as well as the original virus

1) GMT and confidence intervals are adjusted for baseline titer, age at baseline (<65 or ≥65) and prior SARS-CoV-2 infection
2) All GMT measured via pseudo-typed neutralization assay
3) Licensed bivalent, mRNA-based comparator vaccine

 GMT: Geometric mean titer

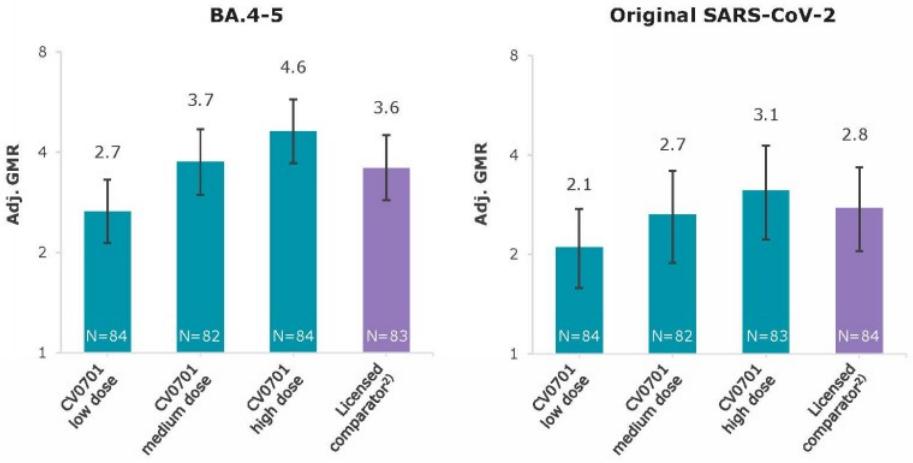
CV0701: Bivalent Candidate Encoding Omicron BA.4-5 & Original SARS-CoV-2

CV0701: Reactogenicity profile



CV0701: Adjusted[1)] geometric mean ratios of neutralizing antibodies titers

Day 29 post- to pre-boost titers



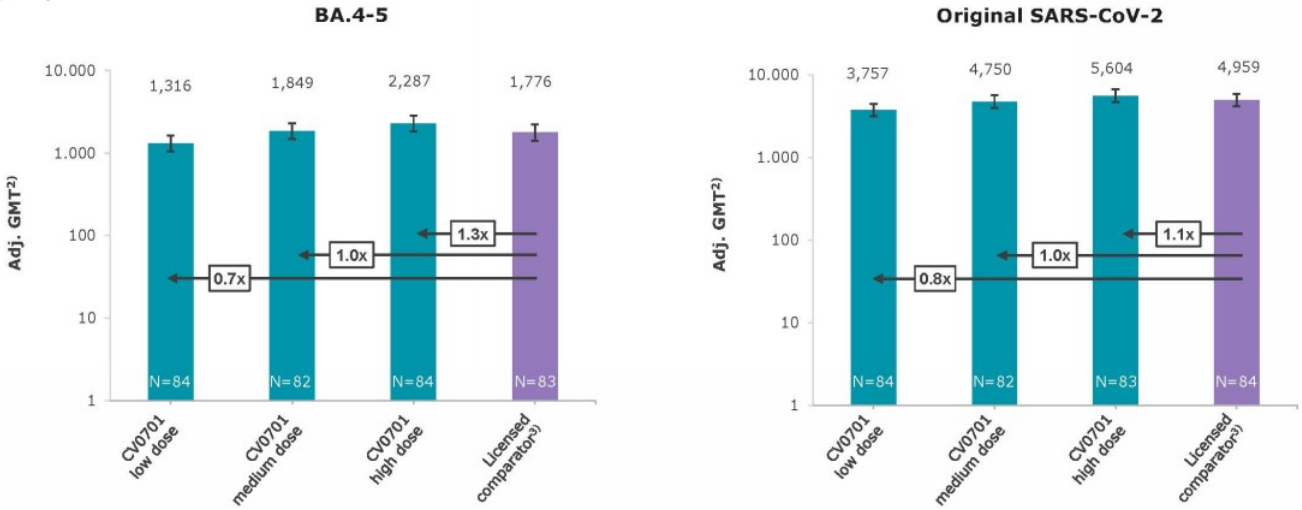
CV0701 is generally well tolerated and shows meaningful immune responses at lower doses

1) GMR and confidence intervals are adjusted for baseline titer, age at baseline (<65 or ≥65) and prior SARS-CoV-2 infection
2) Licensed bivalent, mRNA-based comparator vaccine

GMR: Geometric mean ratio from day 1

CV0701: Adjusted[1] geometric mean titers of neutralizing antibodies

Day 29 post vaccination



CV0701 antibody titers match or numerically exceed comparator titers starting at medium dose level

1) GMT and confidence intervals are adjusted for baseline titer, age at baseline (<65 or ≥65) and prior SARS-CoV-2 infection
2) All GMT measured via pseudo-typed neutralization assay
3) Licensed bivalent, mRNA-based comparator vaccine

 GMT: Geometric mean titer