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# Valneva Announces Positive Final Phase 2 Results for Lyme Disease Vaccine Candidate

- Antibody levels remained well above baseline across all six serotypes and age groups sixth month after third yearly booster dose
- No safety concerns observed in any age group by an independent Data Monitoring Committee (DMC)
- Results confirm benefits of a yearly vaccination prior to each Lyme season

Saint-Herblain (France), November 26, 2025 – Valneva SE (Nasdaq: VALN; Euronext Paris: VLA) today announced positive final immunogenicity and safety data from Phase 2 study, VLA15-221, of Lyme disease vaccine candidate, VLA15. The results showed strong anamnestic immune response and favorable safety profile six months after a third booster dose (month 48) in all age groups, confirming compatibility with the anticipated benefits of a yearly vaccination prior to each Lyme season. Pfizer and Valneva entered into a collaboration agreement in April 2020 for the development and commercialization of VLA15 by Pfizer.

There are currently no approved human vaccines for Lyme disease, and VLA15 has advanced the furthest in clinical development, with all vaccinations completed in the pivotal VALOR Phase 3 trial<sup>1</sup>. The Centers for Disease Control and Prevention (CDC) estimates that approximately 476,000 people in the U.S. are diagnosed and treated for Lyme disease each year<sup>2</sup>, and 132,000 cases are reported annually in Europe<sup>3</sup>. Subject to positive Phase 3 data, Pfizer aims to submit a Biologics License Application (BLA) to the U.S. Food and Drug Administration (FDA) and Marketing Authorization Application (MAA) to the European Medicines Agency (EMA) in 2026.

**Juan Carlos Jaramillo M.D., Chief Medical Officer of Valneva**, said, "These final Phase 2 data are consistent with those reported previously<sup>4,5</sup> and confirm the potential benefits of booster doses across all evaluated age groups. Lyme disease continues to expand geographically and remains a pressing unmet medical need affecting communities across the Northern Hemisphere. Each set of positive results moves us closer to the possibility of making this vaccine available to adults, adolescents and children living in Lyme-endemic areas."

As observed in previous VLA15 clinical studies, an additional dose immediately boosted the antibody levels which then undergo a gradual decline over time but remained well above baseline in all study groups, confirming their persistence at month 48, six months after vaccination at month 42. The study compared two dosing schedules and overall, antibody levels remained higher with the three-dose primary vaccination schedule compared to the two-dose schedule. Geometric mean fold rise (GMFRs) compared to baseline ranged from 9.5-fold for Serotype 1 (ST1) to 15.6-fold for Serotype 2 (ST2) across all age groups in the three-dose Month 0-2-6 primary vaccination schedule. The highest GMFRs were reported in the 5 to 11 years old age group, with GMFR levels ranging from 15.5-fold (ST1) to 28.5-fold (ST2).

These results further validate the use of the three-dose vaccination schedule and a yearly booster dose, already included in the Phase 3 protocols.

The safety and tolerability profile of VLA15 six months after the third booster dose was similar to the profile observed after previous booster doses. No safety concerns were observed by the independent DMC in any vaccination or age group.

#### **About VLA15**

There are currently no approved human vaccines for Lyme disease, and VLA15 is the Lyme disease vaccine candidate which has advanced the furthest along the clinical development timeline, with two Phase 3 trials in progress. This investigational multivalent protein subunit vaccine uses an established mechanism of action for a Lyme disease vaccine that targets the outer surface protein A (OspA) of *Borrelia burgdorferi*, the bacteria that cause Lyme disease. OspA is a surface protein expressed by the bacteria when present in a tick. Blocking OspA inhibits the bacterium's ability to leave the tick and infect humans. The vaccine candidate covers the six most prevalent OspA serotypes expressed by the *Borrelia burgdorferi* sensu lato species in North America and Europe.

## **About Clinical Study VLA15-221**

VLA15-221 was a randomized, observer-blind, placebo-controlled Phase 2 study. It was the first clinical study with VLA15 which enrolled a pediatric population (5-17 years old). 560 healthy participants received either VLA15 in two immunization schedules (month 0-2-6 [N=190] or month 0-6 [N=181]) or placebo (month 0-2-6 [N=189]). Vaccine recipients received VLA15 at a dose of 180 µg, which was selected based on data generated in two previous Phase 2 studies. The main safety and immunogenicity readout (primary endpoint) was performed one month after completion of the primary series vaccination schedule. All eligible subjects received yearly booster doses of VLA15 or placebo at Months 18, 30 and 42. Antibody persistence was followed up to six months post third annual booster. VLA15 was tested as an alum-adjuvanted formulation and administered intramuscularly. The study was conducted at U.S. sites located in areas where Lyme disease is endemic and enrolled both volunteers with a prior infection with *Borrelia burgdorferi* as well as *Borrelia burgdorferi*-naïve volunteers.

## **About Lyme Disease**

Lyme disease is a systemic infection caused by Borrelia burgdorferi bacteria transmitted to humans by the bite of infected Ixodes ticks<sup>6</sup>. It is considered the most common vector-borne illness in the Northern Hemisphere<sup>7,8</sup>. While the true incidence of Lyme disease is unknown, the Centers for Disease Control and Prevention (CDC) has estimated that approximately 476,000 people in the U.S. are diagnosed and treated each year and 132,000 cases are reported annually in Europe. Early symptoms of Lyme disease (such as a gradually expanding erythematous rash called erythema migrans or other nonspecific symptoms like fatigue, fever, headache, mild stiff neck, muscle and joint paints) are often overlooked or misinterpreted. Left untreated, the disease can disseminate and cause more serious chronic complications affecting the skin, joints (arthritis), the heart (carditis) or the nervous system<sup>9,10</sup>. The medical need for vaccination against Lyme disease is steadily increasing as the geographic footprint of the disease widens<sup>11</sup>.

## **About Valneva SE**

We are a specialty vaccine company that develops, manufactures, and commercializes prophylactic vaccines for infectious diseases addressing unmet medical needs. We take a highly specialized and targeted approach, applying our deep expertise across multiple vaccine modalities, focused on providing either first-, best- or only-in-class vaccine solutions.

We have a strong track record, having advanced multiple vaccines from early R&D to approvals, and currently market three proprietary travel vaccines.

Revenues from our growing commercial business help fuel the continued advancement of our vaccine pipeline. This includes the only Lyme disease vaccine candidate in advanced clinical development, which is partnered with Pfizer, the world's most clinically advanced tetravalent Shigella vaccine candidate as well as vaccine candidates against other global public health threats.

# Valneva Forward-Looking Statements

This press release contains certain forward-looking statements relating to the business of Valneva, including with respect to the progress, timing, results and completion of research, development and clinical trials for product candidates, to regulatory approval of product candidates and review of existing products, and financial guidance including projected product sales, total revenue and total R&D investments. In addition, even if the actual results or development of Valneva are consistent with the forward-looking statements contained in this press release, those results or developments of Valneva may not be sustained in the future. In some cases, you can identify forward-looking statements by words such as "could," "should," "may," "expects," "anticipates," "believes," "intends," "estimates," "aims," "targets," or similar words. These forward-looking statements are based largely on the current expectations of Valneva as of the date of this press release and are subject to a number of known and unknown risks and uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievement expressed or implied by these forward-looking statements. In particular, the expectations of Valneva could be affected by, among other things, uncertainties and delays involved in the development and manufacture of vaccines, unexpected clinical trial results, unexpected regulatory actions or delays, competition in general, currency fluctuations, the impact of the global and European credit crisis, and the ability to obtain or maintain patent or other proprietary intellectual property protection. Success in preclinical studies or earlier clinical trials may not be indicative of results in future clinical trials. In light of these risks and uncertainties, there can be no assurance that the forward-looking statements made in this press release will in fact be realized. Valneva is providing this information as of the date of this press release and disclaims any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

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### References

<sup>&</sup>lt;sup>1</sup> Second-Quarter 2025 Earnings Conference Call Prepared Remarks August 5, 2025: <a href="https://s206.q4cdn.com/795948973/files/doc\_financials/2025/q2/Q2-2025-Earnings-Conference-Call-Prepared-Remarks-FINAL.pdf">https://s206.q4cdn.com/795948973/files/doc\_financials/2025/q2/Q2-2025-Earnings-Conference-Call-Prepared-Remarks-FINAL.pdf</a>

<sup>&</sup>lt;sup>2</sup> Lyme Disease Surveillance and Data | Lyme Disease | CDC

Lyme Borreliosis Incidence Across Europe, 2015-2023: A Surveillance-Based Review and Analysis - PubMed

<sup>&</sup>lt;sup>4</sup>https://valneva.com/press-release/valneva-and-pfizer-report-positive-pediatric-and-adolescent-phase-2-booster-results-for-lyme-disease-vaccine-candidate/

<sup>&</sup>lt;sup>5</sup>https://valneva.com/press-release/valneva-and-pfizer-report-further-positive-phase-2-booster-results-for-lyme-disease-vaccine-candidate/

candidate/
<sup>6</sup> Stanek, et al. Lyme Borreliosis. 2012. The Lancet 379:461–473<sup>7</sup> Burn L, et al. Incidence of Lyme Borreliosis in Europe from National Surveillance Systems (2005–2020). 2023. Vector Borne and Zoonotic Diseases. 23(4):156–171.

<sup>&</sup>lt;sup>8</sup>Kugeler KJ, et al. Estimating the frequency of Lyme disease diagnoses—United States, 2010-2018. 2021. Emergency Infectious Disease. 27(2).

<sup>&</sup>lt;sup>9</sup> Centers for Disease Control and Prevention. Lyme disease. Signs and Symptoms. Available from: https://www.cdc.gov/lyme/signs\_symptoms/index.html. Accessed September 2022.

<sup>&</sup>lt;sup>10</sup> Steere AC, Strie F, Wormser GP, et al. Lyme borreliosis. Nature Reviews Disease Primers. 2016;2:16090.

<sup>&</sup>lt;sup>11</sup> Centers for Disease Control and Prevention. Understanding Lyme and Other Tickborne Diseases. May 2022. Available from: <a href="https://www.cdc.gov/ncezid/dvbd/media/lyme-tickborne-diseases-increasing.html">https://www.cdc.gov/ncezid/dvbd/media/lyme-tickborne-diseases-increasing.html</a>. Accessed April 2024.