

Valneva Initiates Phase 3 Clinical Study for its Chikungunya Vaccine Candidate VLA1553

First Chikungunya Vaccine Candidate to Enter Phase 3 Clinical Development

Saint-Herblain (France), September 8, 2020 – Valneva SE (“Valneva” or “the Company”) a specialty vaccine company focused on prevention of diseases with major unmet needs, today announced the initiation of a pivotal Phase 3 clinical trial for its differentiated, single-shot chikungunya vaccine candidate VLA1553. The sponsor of the first chikungunya vaccine Biologics License Application (BLA) to be approved in the U.S. will be eligible to receive a Priority Review Voucher (PRV)¹.

The study, called VLA1553-301, is a double-blinded, placebo-controlled, multi-center study in approximately 4,000 healthy adults aged 18 or above, conducted in the U.S. Participants will be randomized into two study groups to receive either vaccine or placebo. The primary endpoint will be to demonstrate safety and immunogenicity 28 days after a single-shot vaccination with VLA1553. A subset of participants will be tested for sero-protection based on an immunological surrogate (under the Accelerated Approval pathway). Participants will be followed for a total of six months.

The total duration of the study is expected to be nine months and the outcome, if positive, shall provide the basis for licensure of the vaccine.

Wolfgang Bender, M.D., Ph.D., Chief Medical Officer of Valneva, commented, “We are the first company worldwide to advance a chikungunya vaccine candidate into Phase 3. We believe that VLA1553 has best-in class potential. Developing a vaccine against chikungunya is critical as the virus represents a major public health threat and there are currently no preventive vaccines or effective treatments available. We would like to thank our employees who are making this trial possible despite the ongoing COVID-19 pandemic.”

Valneva plans to take VLA1553 to market with the prospect of leveraging major manufacturing and commercial synergies with its existing travel vaccines portfolio.

The target population segments are travelers, military personnel and individuals at risk living in endemic regions. The global market for vaccines against chikungunya is estimated to exceed \$500 million annually, including a traveler vaccine market potential of ~\$250 million.

To make VLA1553 also accessible to Low and Middle Income Countries (LMIC), Valneva and Instituto Butantan in Brazil signed a binding term sheet in May 2020 for the development, manufacturing and marketing of VLA1553. The collaboration will be effective upon the signing of definitive agreements and will fall within the framework of the \$23.4 million funding which Valneva received from the Coalition for Epidemic Preparedness Innovations (CEPI) in July 2019.

¹ <https://priorityreviewvoucher.org/>



About Chikungunya

Chikungunya is a mosquito-borne viral disease caused by the chikungunya virus (CHIKV), a *Togaviridae* virus, transmitted by *Aedes* mosquitoes. Clinical symptoms include acute onset of fever, debilitating joint and muscle pain, headache, nausea and rash, potentially developing into long-term, serious health impairments. Chikungunya virus causes clinical illness in 72-92% of infected humans around 4 to 7 days after an infected mosquito bite. Complications resulting from the disease include visual, neurological, heart and gastrointestinal manifestations; fatalities have been reported (case fatality rates of 0.1% to 4.9% from epidemics)² in elderly patients at higher risk. Chikungunya outbreaks have been reported in Asia, Africa, the Americas and recently (2017) in Europe. As of 2017, there have been more than one million reported cases in the Americas³ and the economic impact is considered to be significant (e.g. Colombia outbreak 2014: \$73.6 million⁴). The medical and economic burden is expected to grow as the CHIKV primary mosquito vectors continue to further spread geographically. There are no preventive vaccines or effective treatments available and, as such, chikungunya is considered to be a major public health threat.

About VLA1553

VLA1553 is a monovalent, single dose, live-attenuated vaccine candidate for protection against chikungunya. VLA1553 is based on an infectious clone (CHIKV LR2006-OPY1) attenuated by deleting a major part of the gene encoding the non-structural replicase complex protein nsP3, aiming for protection against various chikungunya virus outbreak phylogroups and strains⁵. The vaccine candidate is designed for prophylactic, active, single-dose immunization against chikungunya. As a live-attenuated vaccine, VLA1553 is particularly well suited to target long-lasting protection. The safety profile is anticipated to be similar to licensed vaccines for active immunization in adults and children.

The program was granted Fast Track designation by the U.S. Food and Drug Administration (FDA) in December 2018⁶.

During the first half of 2020, VLA1553's complete Phase 1 data were published in the peer-reviewed medical journal *The Lancet Infectious Diseases*. The *Lancet* paper provides a detailed analysis of the unique Phase 1 results (Phase 1: VLA1553-101, ClinicalTrials.gov identifier NCT03382964), which served as a basis for the Company's End of Phase 2 meeting with the U.S. FDA and supported the direct progression into Phase 3.

About the study VLA1553-301

This study is a prospective, double-blinded, multicenter, randomized, pivotal Phase 3 study comprising approximately 4,000 participants aged 18 years or above randomized in a 3:1 ratio to the live-attenuated CHIKV vaccine candidate (VLA1553) or placebo. The study will be conducted at multiple sites across the U.S. The final dose of lyophilized VLA1553 or placebo will be administered as a single intramuscular immunization. The primary objective of the study is to evaluate the immunogenicity and safety of the final dose of VLA1553 28 days following the single immunization. Immunogenicity evaluations in a subset of participants will include the

² WHO, PAHO

³ PAHO/WHO data: *Number of reported cases of Chikungunya Fever in the Americas – EW 51 (December 22, 2017)*

⁴ Cardona-Ospina et al. 2015, *Trans R Soc Trop Med Hyg* 109:793-802.

⁵ Hallengård et al. 2013, *J. Virology* 88:2858-2866.

⁶ Valneva PR: [Valneva Awarded FDA Fast Track Designation for Chikungunya vaccine candidate](#)

proportion of participants with seroprotective neutralizing CHIKV antibody titers above a surrogate threshold indicative of protection. The surrogate of protection reasonably likely to predict clinical benefit has been established in non-human primate passive transfer studies using human sera from the Phase 1 study. Safety data collection and immunogenicity will continue to be assessed until Month 6.

Additional information, including a detailed description of the study design, eligibility criteria and investigator sites, will become available at ClinicalTrials.gov

About Valneva SE

Valneva is a specialty vaccine company focused on prevention against diseases with major unmet needs. Valneva's portfolio includes two commercial vaccines for travelers: IXIARO®/JESPECT® indicated for the prevention of Japanese encephalitis and DUKORAL® indicated for the prevention of cholera and, in some countries, prevention of diarrhea caused by ETEC. The Company has various vaccines in development including unique vaccines against Lyme disease, chikungunya and COVID-19. Valneva has operations in Austria, Sweden, the United Kingdom, France, Canada and the US with over 500 employees. For more information, visit the Company website at www.valneva.com and follow Valneva on [LinkedIn](#).

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Forward-Looking Statements

This press release contains certain forward-looking statements relating to the business of Valneva, including with respect to the progress, timing and completion of research, development and clinical trials for product candidates, the ability to manufacture, market, commercialize and achieve market acceptance for product candidates, the ability to protect intellectual property and operate the business without infringing on the intellectual property rights of others, estimates for future performance and estimates regarding anticipated operating losses, future revenues, capital requirements and needs for additional financing. 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 indicative of their 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 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. In light of these risks and uncertainties, there can be no assurance that the forward-



looking statements made during this presentation will in fact be realized. Valneva is providing the information in these materials as of this press release, and disclaim any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

