



## New Data from Phase 2 Flu Challenge Study Demonstrates Vaxart's Oral H1 Flu Vaccine Generated Protective Mucosal Immunity

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*Vaxart oral tablet vaccine provided 39% reduction in flu illness compared to 27% for Fluzone®*

*Strong  $\beta 7^+$  plasmablasts response in Vaxart vaccinees was highly correlated with protection*

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Oct. 4, 2018-- Vaxart, Inc., a clinical-stage biotechnology company developing oral recombinant vaccines that are administered by tablet rather than by injection, announced it will present new data from the Phase 2 Challenge Study of its H1 influenza oral tablet vaccine at IDWeek 2018 in San Francisco on Saturday, October 6, 2018.

"These latest results show that our vaccine elicited a significant expansion of mucosal homing receptor  $\alpha 4\beta 7^+$  ( $\beta 7^+$ ) plasmablasts to approximately 60% of all activated B cells, while Fluzone only maintained baseline levels of 20%. We believe these  $\beta 7^+$  plasmablasts are a key indicator of a protective mucosal immune response and a unique feature of our oral recombinant vaccines," said Sean Tucker Ph.D., chief scientific officer of Vaxart. "Further analysis of the data also confirm that, while our vaccine also generated protective hemagglutinin inhibition (HAI) antibodies in serum like conventional injectable flu vaccines, it primarily protected through the mucosal mechanism, providing a robust 39% reduction in illness versus placebo overall. In contrast, Fluzone, the market-leading injectable quadrivalent influenza vaccine, only provided a 27% reduction in illness versus placebo, while protecting primarily through HAI antibodies."

Vaxart previously reported only 37% of study participants receiving the Vaxart vaccine developed influenza infection after challenge, compared to 44% of those receiving Fluzone and 71% of those receiving placebo. The new Phase 2 data to be presented at IDWeek 2018 showed that the Vaxart vaccine generated a strong increase in mucosal homing antibody secreting cells, or  $\beta 7^+$  plasmablasts. In protected study participants, the percentage of  $\beta 7^+$  plasmablasts in recipients of the Vaxart vaccine nearly doubled, whereas the percentage of  $\beta 7^+$  plasmablasts in Fluzone recipients remained unchanged.

"In all our studies to date, we have seen both systemic and mucosal immune responses, and this latest data provides solid evidence that our vaccines indeed protect through mucosal immunity, the first line of defense against mucosal infections," said Wouter Latour, M.D., chief executive officer of Vaxart. "We believe this clearly differentiates our oral vaccines from conventional injectable vaccines, and strongly suggests that vaccines based on Vaxart's proprietary vector adjuvant system could be optimal to protect against mucosal pathogens, including some of the major public health threats such as flu, norovirus, RSV and many others."

The Phase 2 study was completed with support from Biomedical Advanced Research and Development Authority (BARDA). Vaxart received a \$13.9 million contract from BARDA in September 2015 to support the advanced development of more effective influenza vaccines to ultimately improve seasonal and pandemic influenza preparedness. The contract was increased to \$15.7 million in 2017.

The project has been funded in whole or in part with federal funds from the Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority under Contract No. HHSO100201500034C.

### About Influenza

The flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat and sometimes the lungs. It can cause mild to severe illness, and at times, can lead to death. While the impact of flu varies, it places a substantial burden on the health of people in the United States. The U.S. Centers for Disease Control and Prevention (CDC) estimates that influenza has resulted in between 9.2 million and 60.8 million illnesses, between 140,000 and 710,000 hospitalizations and between 12,000 and 56,000 deaths annually since 2010. For further information on influenza, its burden on human health and vaccine development, please visit the CDC website at [www.cdc.gov/flu/](http://www.cdc.gov/flu/).

### About Vaxart

Vaxart is a clinical-stage biotechnology company focused on developing oral recombinant protein vaccines based on its proprietary oral vaccine platform. Vaxart's vaccines are designed to generate broad and durable immune responses that protect against a wide range of infectious diseases and may also be useful for the treatment of chronic viral infections and cancer. Vaxart's vaccines are administered using a convenient room temperature-stable tablet, rather than by injection. Vaxart believes that tablet vaccines are easier to distribute and administer than injectable vaccines, and have the potential to significantly increase vaccination rates. Vaxart's development programs include oral tablet vaccines that are designed to protect against norovirus, seasonal influenza and respiratory syncytial virus (RSV), as well as a therapeutic vaccine for human papillomavirus (HPV). For more information, please visit [www.vaxart.com](http://www.vaxart.com).

### Note Regarding Forward-Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this press release regarding our strategy, prospects, plans and objectives, results from preclinical and clinical trials, commercialization agreements and licenses, beliefs and expectations of management are forward-looking statements. These forward-looking statements may be accompanied by such words as "believe," "could," "potential", "will" and other words and terms of similar meaning. Examples of such statements include, but are not limited to, statements relating to the Vaxart's ability to develop and commercialize its product candidates, clinical results and trial data, Vaxart's ability to obtain and maintain regulatory approval of its product candidates and Vaxart's reliance on third party funding

and grants. Vaxart may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in our forward-looking statements and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Vaxart makes, that Vaxart's product candidates may not be approved by the FDA or non-U.S. regulatory authorities; that, even if approved by the FDA or non-U.S. regulatory authorities, Vaxart's product candidates may not achieve broad market acceptance; and the risks described in the "Risk Factors" sections of the Registration Statement on Form S-4 (file no. 333-222009) and of Vaxart's periodic reports filed with the SEC. Vaxart does not assume any obligation to update any forward-looking statements, except as required by law.

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