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# Vaccines & Vaccination

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## Rapid development of an oral Zika virus vaccine

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Vaxart Inc., USA

Vaxart is developing a tablet vaccine platform that is swallowed, rather than injected by needle. The platform is based on a recombinant adenovirus that expresses a protein antigen along with a dsRNA molecular adjuvant to improve immune recognition. Studies in animals and humans have demonstrated that preexisting immunity to the vector does not impact vaccine performance when the vaccine is administered orally. A recently published study in Lancet ID demonstrated that after a single dose of tablets, a 29 fold increase in geometric mean titer to influenza was induced in humans with over 92% of subjects responding. In order to expedite a vaccine against Zika virus, the envelope antigen of Zika has been inserted in the same platform backbone as performed in the earlier human influenza studies. Vaccine constructs were created in a matter of days and immunogenicity studies have begun in mice. Results from the immunogenicity studies and the plan for developing clinical trial material will be discussed at the meeting.

### Biography

Sean N Tucker has completed his Doctoral degree in Immunology at the University of Washington. He is the Chief Scientific Officer and Vice President for Research at Vaxart Inc., a company focused on mucosal vaccine delivery. He has published several papers in immunology and served as a Grant Reviewer for several vaccine related study sections at the NIH.

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