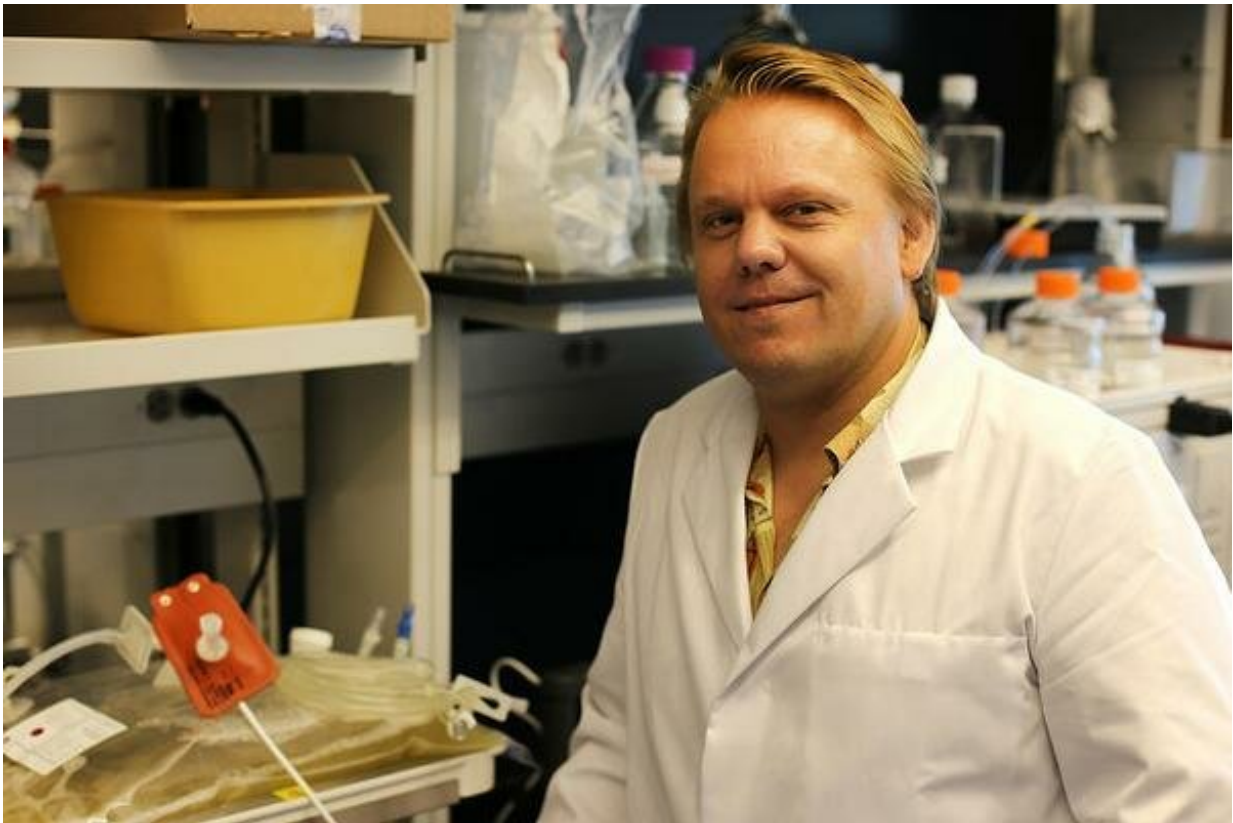


# Ebola subunit vaccine can withstand high heat

February 25 2019, by Tina M Shelton

---



Axel Lehrer. Credit: University of Hawaii at Manoa

There is more positive news to report about the Ebola subunit vaccine candidate developed by University of Hawai'i at Mānoa scientist Axel Lehrer. The potential vaccine remains viable in extreme heat conditions

for several months, which is especially important where the disease outbreaks so far have begun in rural, spread-out areas of hot, dry West Africa.

In his scientific article, "Thermostable Ebola virus vaccine formulations lyophilized in the presence of aluminum hydroxide," Lehrer demonstrates his vaccine can sustain immunogenicity, the ability to provoke an [immune response](#) in the body, after being stored at 104 degrees F for up to 12 weeks.

"None of the other Ebola vaccines under development have the ability to withstand [high temperatures](#), which is an ongoing concern in areas of the world where Filoviruses are endemic," said Lehrer, assistant professor, in the Department of Tropical Medicine, Medical Microbiology and Pharmacology at UH Mānoa's John A. Burns School of Medicine.

"The ability to stabilize our [vaccine candidate](#) to retain immunogenicity may not only have an impact on logistics, but also has the potential to reach more persons in need with fewer vaccine doses. This would be a tremendous advantage, especially in endemic areas, increasing the number of people receiving sufficient doses of the vaccine to protect them from disease."

Lehrer said he and his team are very encouraged by these preliminary results and look forward to their continuing collaborations with Soligenix, a late-stage biopharmaceutical company based in New Jersey and Lehrer's Hawai'i-based Ebola subunit [vaccine](#) collaborator Hawaii Biotech Inc. to further develop vaccines for Ebola and the filovirus.

The paper was published in the *European Journal of Pharmaceutics and Biopharmaceutics*.

**More information:** Carly Fleagle Chisholm et al. Thermostable Ebola

virus vaccine formulations lyophilized in the presence of aluminum hydroxide, *European Journal of Pharmaceutics and Biopharmaceutics* (2019). [DOI: 10.1016/j.ejpb.2019.01.019](https://doi.org/10.1016/j.ejpb.2019.01.019)

Provided by University of Hawaii at Manoa

Citation: Ebola subunit vaccine can withstand high heat (2019, February 25) retrieved 26 April 2024 from <https://medicalxpress.com/news/2019-02-ebola-subunit-vaccine-high.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.