



**Department of Tropical Medicine, Medical  
Microbiology and Pharmacology**



## **SEMINAR TRMD 690**

### **Development and pre-clinical efficacy of an adjuvanted recombinant subunit COVID-19 vaccine**

Vaccination is a crucial component of an effective public health strategy against the ongoing COVID-19 pandemic. FDA-approved and Emergency Use Authorized (EUA) vaccines using new mRNA and viral-vector technology are highly effective in preventing moderate to severe disease, however information on their long-term efficacy and protective breadth against SARS-CoV-2 Variants of Concern (VOC) is currently scarce. This seminar will cover the development and pre-clinical evaluation of an adjuvanted, recombinant subunit vaccine in mice and cynomolgus macaques. We show that this vaccine is highly immunogenic and induces robust spike-specific and cross-variant neutralizing antibodies against circulating VOC for at least 3 months after the final boost. Protective efficacy and post-exposure immunity are evaluated using a late, heterologous P.1 (Gamma) challenge model. Our results indicate that our vaccine candidate effectively reduces viral load in the upper & lower respiratory tract and seems protective against disease in macaques even as vaccine immunity wanes.



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**Wednesday, September 22, 2021**

**12:00 – 1:00 PM HST**

#### **Zoom Details**

**Link:** <https://zoom.us/j/97962975142?pwd=aFdJZmhrbjdDOGQ2UFZHZTYyeDhUZz09>

**Meeting ID:** 979 6297 5142

**Passcode:** 306033

For further information, contact Dr. Vivek R. Nerurkar - Tel. 808-692-1668; email: [nerurkar@hawaii.edu](mailto:nerurkar@hawaii.edu)  
Seminar Schedule @ <http://manoa.hawaii.edu/tropicalmedicine>