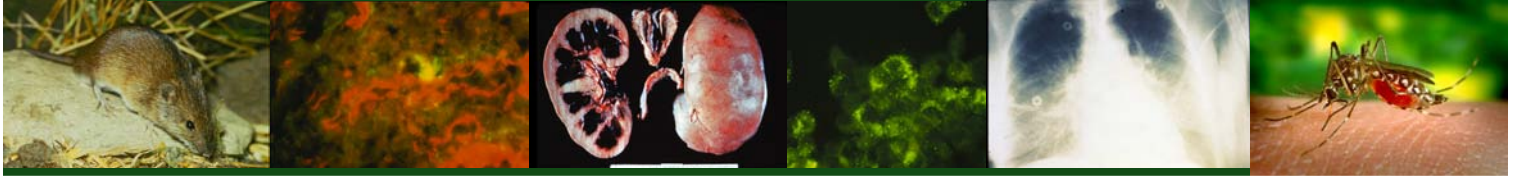




Department of Tropical Medicine Medical Microbiology & Pharmacology
Pacific Center for Emerging Infectious Diseases Research



COBRE/Department of Tropical Medicine Seminar Series

Recombinant Viral Proteins Expressed in Insect Cells and their Application for Vaccine Development

Vaccine safety is becoming an increasingly important criterion for newly developed vaccines for neglected, emerging or re-emerging infectious diseases or for next-generation products replacing existing vaccines. Properly selected and highly purified recombinant antigens can fill these needs, if antigen design and dosing are adjusted to be sufficiently immunogenic to prevent viral infection or at least prevent the onset of clinical disease. As an example, there are currently no licensed vaccines to prevent the hemorrhagic fevers resulting from Ebola or Marburg virus infection. Classical approaches such as inactivated whole-virus vaccines carry significant safety risks and efforts at developing these or attenuated virus vaccines have proven unsuccessful. We have produced multiple recombinant subunit filovirus antigens in insect cells that have been shown to elicit potent humoral and cell-mediated immune responses in mice, guinea pigs and non-human primates when formulated with proper adjuvants. Lead candidate vaccines have shown complete protection against live Ebola virus challenge, when tested in rodent models. The modular aspect of this recombinant subunit vaccine allowed us to demonstrate the contributions of humoral and cellular immunity in protection elicited by recombinant Ebola virus glycoprotein and VP24 subunits in mice.

Axel Lehrer, Ph.D.

*Project Manager and Lead Scientist
Pan Thera Biopharma
Aiea, Hawaii*

Tuesday, November 8, 2011 at 10:30 a.m.
John A. Burns School of Medicine, Kaka'ako
Medical Education Building Auditorium, Room 315
For further information, call 692-1654

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