

**SPECIAL TOPIC SYMPOSIUM: EMERGING INFECTIOUS DISEASES**

**Thursday, 10 April 1:00pm-3:00pm**

**UNM SUB Room: Fiesta**

**Session Chair: Jens Poschet (Sandia National Laboratories)**

1:00 Carne, Eric (University of New Mexico ), Sharon Master (University of New Mexico Health Science Center), De Anna Lopez (University of New Mexico), Vojo Deretic (University of New Mexico Health Science Center), C. Jeff Brinker (University of New Mexico/Sandia National Laboratories), and Graham Timmins\* (University of New Mexico Health Science Center)  
NANOSTRUCTURED CARRIER FOR LIVE VACCINES: EXTENDED VIABILITY OF TUBERCULOSIS VACCINE

1:20 Harrod, Kevin (Lovelace Respiratory Research Institute, LRRI)  
SARS-CoV PATHOGENESIS: INSIGHTS INTO THE MOLECULAR MECHANISMS OF DISEASE

1:40 Carles, Elizabeth\* (Sandia National Laboratories), Bryan Carson (Sandia National Laboratories), Jaclyn Murton (Sandia National Laboratories), Steve Branda (Sandia National Laboratories), Cathy Branda (Sandia National Laboratories), and Jens Poschet (Sandia National Laboratories)  
ReIA TRANSLOCATION IN RESPONSE TO DIFFERENT LPS CHEMOTYPES IN MURINE

2:10 Holbrook, Michael (University of Texas Medical Branch-Galveston)  
ANIMAL MODELS FOR HIGHLY PATHOGENIC TICK-BORNE FLAVIVIRUSES

2:30 Rebeil, Roberto (Sandia National Laboratories)  
CHANGES IN FLEA MIDGUT ENVIRONMENT INDUCES THE TRANSMISSION PHENOTYPE OF YERSINIA PESTIS

**Session Abstract:**

Emerging infectious disease will prove to become a major challenge for our future. In addition many diseases have been re-emerging, rather than just emerging. Amongst these are the increased incident rates of tuberculosis in first world countries. While this disease has been ravaging poorer nations for decades, with approximately one third of the worlds population affected, the emergence of drug resistant strains is a major concern. In light of this observation vaccination is the only true alternative. While TB has been with us for a substantial time SARS did hit the world and the headlines out of the blue, proving to be a truly emerging disease. The pathogenesis is not fully understood and the risk of another outbreak is looming over us. While the threat of SARS is a fairly new one, classic bacterial diseases such as the plague and tularemia have been with us for centuries. These two diseases are of local southwestern interest, since pets and humans get regularly infected by them. A striking feature of both of these diseases is that they are able to avert or subvert the immune response and can therefore rapidly grow inside the host, often with lethal consequences. In addition, both have been used as biological warfare agents. To round out the field of emerging disease we turn our attention to tick borne viral infections. Like the plague these infections rely on vector borne transmission. Given the ever expanding area, which humans inhabit, it is only a question of when and not if, when these diseases begin to constitute a major threat to global health. I hope this varied session will give an interesting insight into research conducted in this field.