

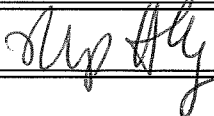
U.S. Department of Agriculture Accomplishments Report AD-421 U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 01/09/2013
1. Accession 0209503	Agency Identification No. 2. CSREES 3. LAB	5. Work Unit/Project No. LAB93841	6. Status Final Report
7. Title Evaluation of B. abortus RB51 and B. suis VTRS1 as Multivalent Vaccines to Generate Immune Responses Against Brucellosis, Tuberculosis and P			
12. Investigator Name(s) (Last Name and Initials) Elzer, P. H.; French, D. D.			
20. Termination Date 10/31/2012		40. Period Covered (mo/da/year): 11/01/2006 TO 10/31/2012	
Outputs: This is the termination report for a six year project dealing with brucellosis, a disease of domestic and wild animals which has far reaching economic consequences throughout the world. This information was shared with other researchers at local, national, and international levels through the publication of one book chapter, ten journal articles and twenty six poster/abstract presentations. Several trainings and workshops involving international scientists have been held involving the following topics: brucellosis laboratory techniques, immunology and molecular biology. This information has also been disseminated to federal and international regulatory agencies as well as vaccine companies.			
Outcomes/Impacts: The long term goal of this project was to test various methodologies and vaccine candidates for the control of brucellosis in wild and domestic ungulates. Three potential vaccines were evaluated in this project. Each of those vaccines was non-pathogenic and elicited an immune response. Vaccine administration was also investigated through the use of a plant-based ruminant edible vaccine that demonstrated not only antibody production but also a protective humoral response. Various training modules were conducted to with novel techniques which will aid in the diagnostic evaluation of future brucellae isolates and has potential therapeutic uses. Due to the continuous threat of disease transmission of Brucella spp. from wildlife reservoirs to domestic livestock, new vaccine candidates are needed to aid in the brucellosis eradication program. The potential use of recombinant vaccines aids in the global effort to permanently eradicate this disease in livestock and thus reducing the human disease.			
Publications: T. Onashvili, E. Mamisashvili; M. Nikolaishvili; I. Beradze; M. Zakareishvili; M. Donduashvili; M. Kokhraidze; N. Vepkhvadze; T. Tighilauri ; K. Goginashvili; G. Osiashvili; L. Kerdzevadze; P. Elzer, J. Blackburn. (2012). Clinical and Epidemiologic Assessment of Brucellosis in Georgia. ASM Biodefense and Emerging Diseases, Washington DC Feb 26-29, 2012. Alexander KA, J.K. Blackburn, M.E. Vandewalle, R. Pesapane, E.K. Baipoledi, P.H. Elzer. (2012). Buffalo, bush meat, and the zoonotic threat of brucellosis in Botswana. PLoS One. 7(3):e32842. Epub 2012 Mar 8.			
Participants: P. Elzer, F. Enright, D. French, C. Navarre, J. Walker, A. Bridges, S. Hagius, and numerous graduate and veterinary students (LSU AgCenter). Collaborators include scientists from Texas A&M, Virginia Tech, University of Wyoming, Montana State University, Walter Reed Institute of Research, Vital Probes, and the Microbe Company.			
Target Audiences: Target audiences include the brucellosis scientific community, USDA, vaccine producers, veterinary professionals,			



Local and state animal health and wildlife groups.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
		1-15-2013