

**Project Summary**  
**Rocky Mountains Cooperative Ecosystem Studies Unit**

<b>Project Title:</b> USGS Ongoing Support for Chronic Wasting Disease Research, Jewell
<b>Type of Project:</b> Research
<b>Project Discipline):</b> Natural
<b>Funding Agency:</b> DOI USGS
<b>Other Partners/Cooperators:</b> International Association of Fish and Wildlife Agencies
<b>Effective Dates:</b> 8/02/05 – 9/30/06
<b>Funding Amount:</b> \$35,000
<p><b>Investigators and Agency Representative:</b>            PI: Jean E. Jewell, Senior Research Scientist, University of Wyoming Department of Veterinary Sciences, 1174 Snowy Range Road, Laramie, WY 82070. tel: 307-742-6638; <a href="mailto:jjewell@uwyo.edu">jjewell@uwyo.edu</a></p> <p>Agency Rep: Roger Wilmot, Assoc. VP for Research, University of Wyoming, P.O. Box 3355, Laramie, WY 82701; tel: 307-766-5320; <a href="mailto:rwilmot@uwyo.edu">rwilmot@uwyo.edu</a></p>
<p><b>Project Abstract:</b>  <u>Background:</u> Research is conducted to increase the understanding of complex subjects toward solving problems. An important part of the research process is communication of results and their implications via peer-reviewed publication – without this, research findings cannot be consistently and reliably conveyed to the wider scientific community.</p> <p>In January 2005, the state and federal partners who share USGS-BRD funding earmarked for chronic wasting disease (CWD) research recognized the need to bring several of Dr. Williams' research projects to completion in order to contribute to the wider understanding of CWD and its control. At this time, the most useful form of assistance that can be provided toward completing this unfinished work is directing funds to the University of Wyoming to aid a researcher, Dr. Jean Jewell, who has with knowledge of CWD, is familiar with Dr. Williams' ongoing projects, methods and organization, and has sufficient competence to finish this work in collaboration with others. The funds requested here will facilitate the completion and publication of six of the most important (of more than 20) research projects under Dr. Williams' supervision at the time of her death. The aim is to complete these six studies by <b>June 2006</b>.</p> <p><u>Objectives:</u></p> <ol style="list-style-type: none"> <li>1) Complete and publish results of a study of the pathogenesis of CWD in mule deer.</li> <li>2) Complete and publish results from a study of PrP<sup>CWD</sup> detection in muscle tissues of CWD-infected deer and elk.</li> <li>3) Complete and publish results from a study of the pathogenesis of CWD in white-tailed deer.</li> <li>4) Summarize results and submit manuscripts for recently completed research on:             <ol style="list-style-type: none"> <li>a) Short-term susceptibility of cattle to oral inoculation with tissues from infected elk or mule deer;</li> <li>b) Experimentally-induced CWD infection in moose;</li> <li>c) Genetic variability in PrP protein among North American wild ruminants and possible implications for species' susceptibility to CWD.</li> </ol> </li> </ol> <p>We expect to complete these objectives by June 30, 2006. Publications resulting from this work will acknowledge USGS for support; upon publication, copies of manuscripts will be sent to the USGS-BRD's Wildlife Program Coordinator.</p>
<p><b>Outcomes with completion dates (reports, publications, workshops, videos, etc.):</b> 1) mule deer CWD pathogenesis: collaborative project with Colorado Div. of Wildlife, Dr. Mike Miller. Manuscript is in preparation. 2) PrP detection in muscle tissues of CWD-infected deer and elk: Manuscript submitted to Journal of General Virology, Dec. 19, 2005. 3) CWD White-tailed deer pathogenesis: collaborative project with Colorado Div. of Wildlife, Dr. Mike Miller. Immunohistochemical analysis of deer tissues in progress. 4) a) Short term cattle study: Immunohistochemical analysis of bovine tissues in progress; ELISA analyses completed. Collaboration with Dr. D.L. Montgomery, UW Vet Sciences. b) CWD in moose: Collaborative project with Dr. Terry Kreeger, Wyoming Game and Fish Dept.; manuscript submitted to Journal of Wildlife Disease, in review and revision. c) Genetic variability in PrP: data gathering complete; manuscript to be written.</p>
<b>Keywords:</b> Chronic Wasting Disease, deer, elk, USGS-BRD, University of Wyoming

