

TESTIMONY OF BROCK WAHL NORTH DAKOTA BACKCOUNTRY HUNTERS AND ANGLERS HOUSE BILL 1325 HOUSE ENERGY AND NATURAL RESOURCE COMMITTEE January 24, 2025

The North Dakota Chapter of Backcountry Hunters and Anglers urges a Do Not Pass on HB 1325.

It has been clearly demonstrated in multiple research efforts, that detection of infectious prions in retropharyngeal lymph nodes (positive test) results in disease and subsequent death, generally around 2-years, outside of other mortality factors. Multiple disease pathogenesis studies have been done to quantify and record disease progression through the body of an infected animal, as well as field validation of testing. This is true in human prion diseases as well. Authors behind this bill, questioning the validity of CWD testing are, perhaps unknowingly, questioning the entire field of prion diseases, not just in animals but also in humans. For which there are tests for humans as well, tests that detect prions.

ELISA and IHC to confirm is a two phase testing protocol, both of which use artificially developed antibodies that bind only to the proteins of interest (species specificity). Every single Immunohistochemistry (IHC) test requires a trained pathologist to confirm prion aggregation within specific locations in the anatomy of a lymph node to confirm ELISA results. The suggestion that these tests are faulty or are not trustworthy, that they aren't detecting prions, would be casting doubt on the entire field of prion biology, in both humans and animals. That same field is in the midst of trying to develop vaccines and treatments for prion diseases. This is the same field that just accomplished atomic level imaging of an infectious prion, a feat that is regarded in the prion field to be the equivalent of mapping the human genome. The same field that can convert a non-infectious cellular protein into an infectious prion protein that causes a symptomatic prion disease.

Furthermore, thousands of deer have been participants in GPS collaring studies where deer are tested, mortality signals investigated, and necropsies performed. For example, Arkansas is in the final stages of their GPS collaring project where mid-point data shows 34% of positive deer died of no other cause other than late stage, clinical Chronic wasting disease. Wisconsin's preliminary data from a multi-year study where they GPS collared over 1,000 deer, shows 57% of positive white-tailed does died of no other cause other than late stage, clinical chronic wasting disease.

This bill is the equivalent of a witch hunt and should be treated as such.

We urge a Do Not Pass on HB 1325.

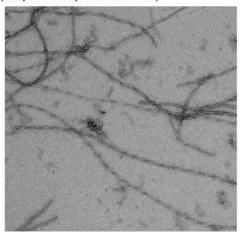
Brock Wahl Board of Directors North Dakota Chapter of Backcountry Hunters and Anglers



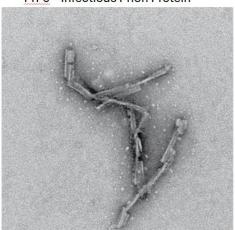


PrPc vs PrPcwd

PrPc – Non-infectious Cellular Prion Protein (Required for prion infection)



PrPc - Infectious Prion Protein



- Structural features distinguishing infectious ex vivo mammalian prions from noninfectious fibrillar assemblies generated in vitro
 - o https://www.nature.com/articles/s41598-018-36700-w
- High-resolution structure and strain comparison of infectious mammalian prions
 - https://thedaily.case.edu/first-atomic-level-imaging-of-lethal-prions-provide-sharpenedfocus-for-potential-treatments/
 - https://www.sciencedirect.com/science/article/pii/S1097276521006511?via%3Dihub
- Field Validation and Assessment of an Enzyme-Linked Immunosorbent Assay for Detecting Chronic Wasting Disease in Mule Deer (Odocoileus Hemionus), White-Tailed Deer (Odocoileus Virginianus), and Rocky Mountain Elk (Cervus Elaphus Nelsoni)
 - https://journals.sagepub.com/doi/10.1177/104063870301500402?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed
- Progression of chronic wasting disease in white-tailed deer analyzed by serial biopsy RT-QuIC and immunohistochemistry
 - o https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0228327
- Pathways of Prion Spread during Early Chronic Wasting Disease in Deer
 - https://pmc.ncbi.nlm.nih.gov/articles/PMC5411598/
- Longitudinal Detection of Prion Shedding in Saliva and Urine by Chronic Wasting Disease-Infected Deer by Real-Time Quaking-Induced Conversion
 - o https://journals.asm.org/doi/full/10.1128/jvi.01118-15
- Flourescent Immunoassay Development for PrPSc Detection and Antemortem Diagnosis of TSEs
 - https://apps.dtic.mil/sti/tr/pdf/ADA430442.pdf



- Oral transmission and early lymphoid tropism of chronic wasting disease PrPres in mule deer fawns (Odocoileus hemionus)
 - https://sigurdsonlab.ucsd.edu/wp-content/uploads/2018/07/Sigurdson-1999-Oraltransmission-and-early-lym.pdf
- Comparison of Histological Lesions and Immunohistochemical Staining of Proteinaseresistant Prion Protein in a Naturally Occurring Spongiform Encephalopathy of Freeranging Mule Deer (Odocoileus hemionus) with Those of Chronic Wasting Disease of Captive Mule Deer
 - o https://journals.sagepub.com/doi/full/10.1354/vp.39-1-110

