

Chronic Wasting Disease: 2019

College of Veterinary Medicine
School of Public Health

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Chronic Wasting Disease (CWD) Sampling, Research & Testing

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Sample collection by DVM students



Collaborative research with the Department of Natural Resources, Board of Animal Health and producers

Article



A case of chronic wasting disease in a captive red deer (*Cervus elaphus*)

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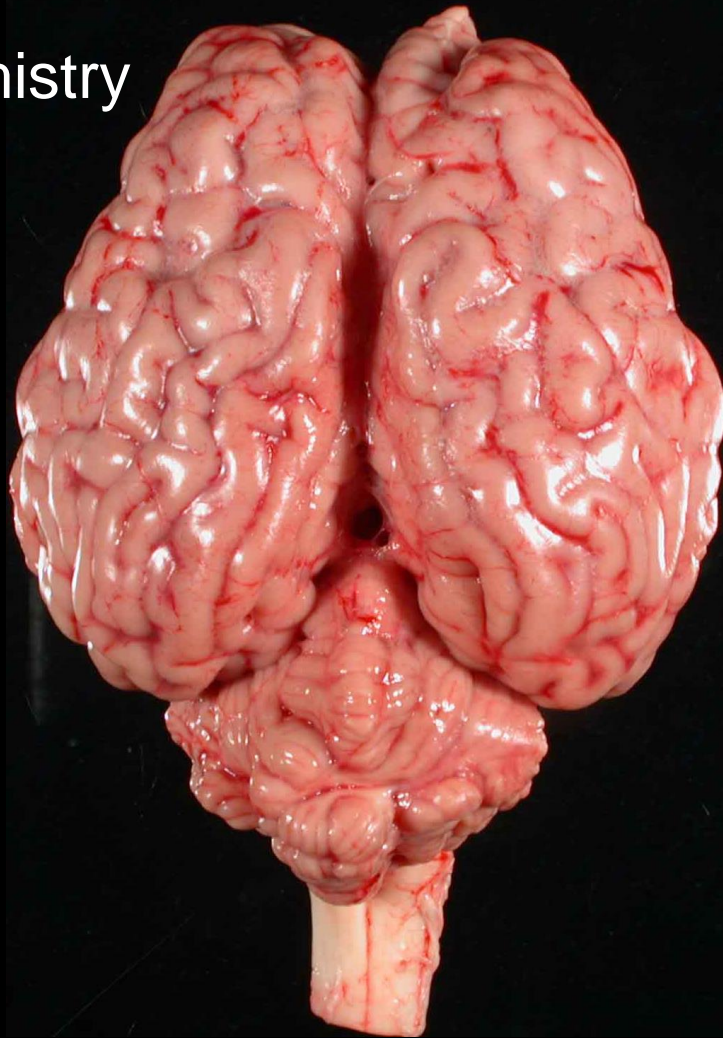


VDL/CVM CWD Diagnostic Services

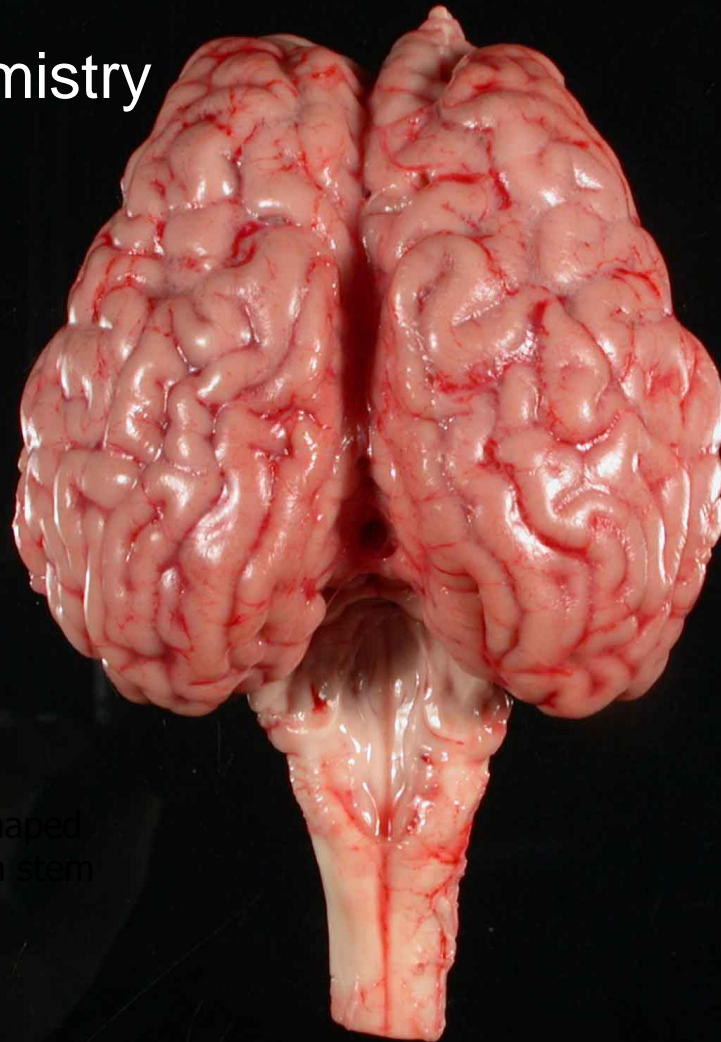
1. Immunohistochemistry (IHC) testing for farmed cervids for the Board of Animal Health
2. IHC testing for hunter harvested deer for voluntary testing
3. Diagnostic confirmation of results from enzyme linked immunosorbent assays (ELISA)



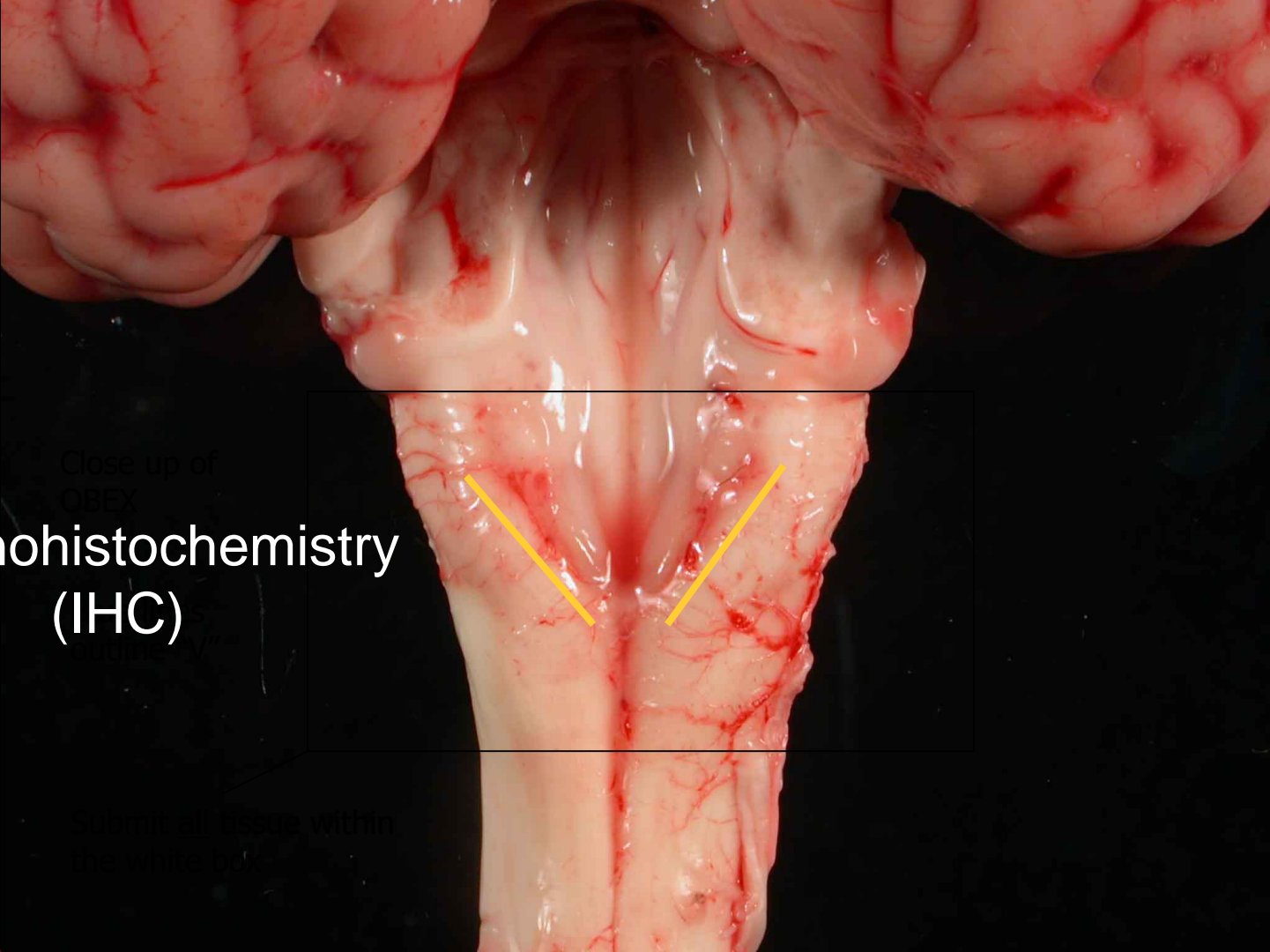
Immunohistochemistry (IHC)



Immunohistochemistry (IHC)



shaped
stem

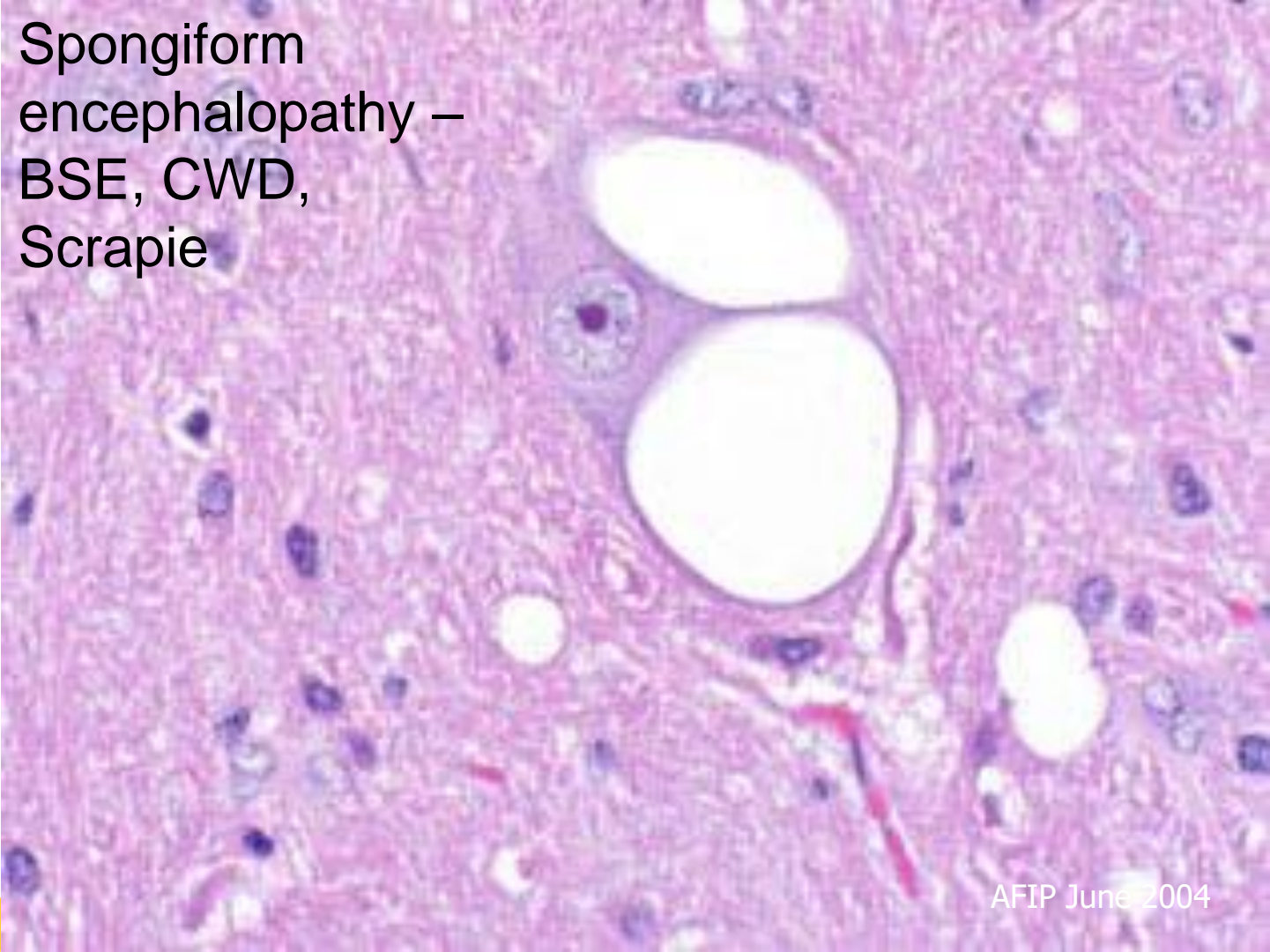


Close up of
OBEX

Immunohistochemistry (IHC)

Submit all tissue within
the white box

Spongiform
encephalopathy –
BSE, CWD,
Scrapie

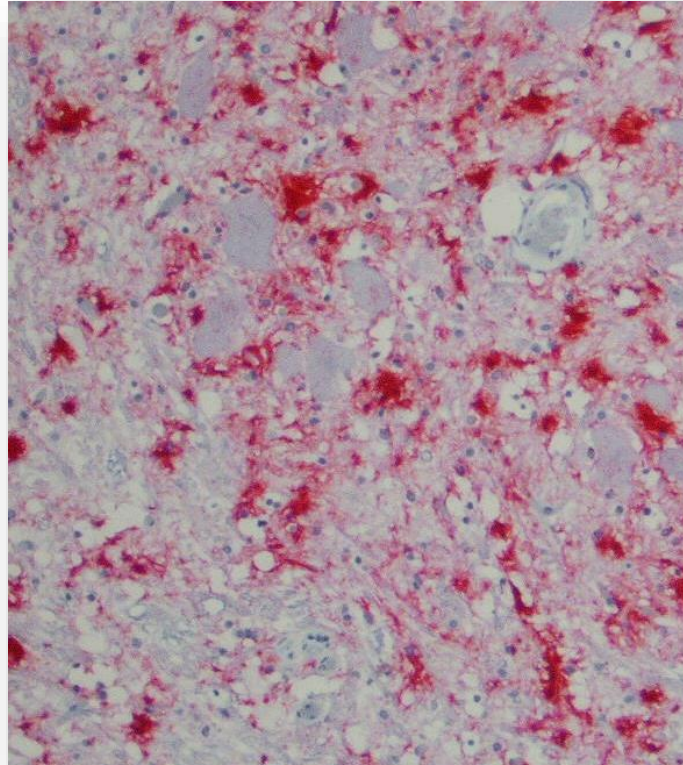


AFIP June 2004





Immunohistochemistry (IHC)



Testing process

1. Formalin fixation
2. IHC staining
3. Initial reading
4. Confirmation by USDA

CWD Testing Challenges

IHC & ELISA



Future needs

Expensive (\$30 - \$80)

Slow (4 - 14 days)

Invasive (brain & lymph nodes)

Postmortem (dead)

Laboratory based (ship to test)

Highly technical

Accurate "Gold Standard" (IHC)

Affordable

Fast (1-2 days)

Non-invasive (swabs, envir.)

Antemortem (live)

Field based

Simple & user-friendly

Accurate

Confirmation





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