NEUROPATHOLOGY IN WHI
From Concept to Possibility
AIMS

• Establish a brain bank in the WHI Cohort, which will serve as a national resource for future investigations of normal, pathological, and resilient aging in women.

• Conduct standard neuropathological assessments of characteristic Alzheimer’s pathologies (beta-amyloid 1-42, total tau protein, phosphorylated tau protein, etc.).

• Characterize resilience under the neuropathological microscope.
EXPERTISE

• Neuropathology
  ✓ Tom Montine (UW ACT, UCI 90+ Study, Rush Memory and Aging Project & Religious Order Study); Dirk Keene (ACT); Julie Schneider (MAP, ROS)

• Cognitive Assessment & Adjudication of Cognitive Status
  ✓ Laura Baker, Steve Rapp, Wake Forest WHIMS team, Wake Forest Alzheimer’s Disease Center

• Consenting for Brain Donation
  ✓ Maria Corrada & Claudia Kawas (90+ Study); Neelum Aggarwal (ROS, MAP – high rates of minority participation)

• Clinical Characterization
  ✓ Victor Henderson (Stanford), partner Alzheimer’s Disease Centers

• Resilience & Other Aging-Related Conditions
  ✓ Tim Hohman (Vanderbilt); Andrea LaCroix
BRAIN RETRIEVAL, EXAMINATION & STORAGE

- Family instructed to call a specific phone number as soon as possible after death
- Body is retrieved and brought to autopsy suite at an academic institution or funeral home
- Contract with Alzheimer’s Centers across the US to harvest, fix, and send tissue to the WHI Bank (at Stanford)
- In areas outside Alzheimer Disease Center catchment areas, contract with other organizations to harvest, fix, and send tissue as per protocol
- Stanford team will complete standard neurodegenerative disease assessments; data uploaded to a central database
- Tissue will be frozen and fixed according to standard accepted national guidelines
- Tissue will be catalogued and frozen
- Request for tissue will be reviewed by a team, and then distributed by the bank manager
CAN WE DO THIS?

CONSENTING, COGNITIVE ASSESSMENTS

• Letter and follow-up call to assess willingness to participate
• In-person consenting and cognitive, functional, and clinical assessments (great opportunity for other assessments as well)
• Annual in-person assessment until death
• Adjudication of cognitive status at the time of death by experts in the field
• MRI would be helpful in at least 50% of sample
WHO TO INVITE TO PARTICIPATE?

- WHIMS – longitudinal cognitive data available
- Consider opening up to everyone to increase cognitive diversity in the sample (everyone will receive in-person assessments)
BRAIN BANK & NEUROPATHOLOGY IN WHI

Is This A Possibility?

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