

The Neuropathological Diagnosis of Chronic Traumatic Encephalopathy (CTE): Next Steps

John Edward Porter Neuroscience Research Center, NIH Main Campus
November 6-7, 2019

Day 1: November 6, 2019

08:00 am **Registration**

08:30 am **Welcome**

Patrick Bellgowan, PhD, National Institute of Neurological Disorders and Stroke/NIH

08:40 am **The NINDS Perspective on CTE**

Walter Koroshetz, MD, National Institute of Neurological Disorders and Stroke/NIH

09:00 am **Session 1: State of Evidence in CTE Neuropathology**

Goal: *Set the stage; what does the literature teach us about CTE neuropathology?*

30 min presentations and 45 min Panel Discussion

Perspectives on CTE:

- CTE as a Tauopathy
Ann McKee, MD, Boston University & Veterans Administration
- The Spectrum of Pathology in CTE
Willie Stewart, PhD, University of Glasgow
- CTE in Military Personnel
Daniel Perl, MD, Uniformed Services University

10:30 am **Break (15 minutes)**

10:45 am **Moderated Panel Discussion: Discussion of agreements, uncertainties, and disagreements (45 min)**

Moderator: *Thomas Montine, MD, PhD, Stanford University*

Panelists:

Stephen Gentleman, PhD, Imperial College, London
Ann McKee, MD, Boston University & Veterans Administration
Daniel Perl, MD, Uniformed Services University
Willie Stewart, PhD, University of Glasgow

11:45 pm **Lunch (1 hour)**

12:45 pm **Session 2: Sensitivity and Specificity**

Goal: *Discuss existing knowledge and outline needs for determining the sensitivity and specificity of CTE neuropathology.*

30 min presentation and 45 min Panel Discussion

Topic Presentation:

- Overview of Definitions and Methodological Challenges
C. Dirk Keene, MD, PhD, University of Washington

- 01:15 pm **Moderated Panel Discussion: Discussion of barriers, potential solutions, priorities, and approaches, e.g., overlap with other diagnostic criteria, premorbid TBI diagnosis, tissue sampling, etc. (45 min)**
Moderator: Julie Schneider, MD, Rush Medical College
Panelists:
C. Dirk Keene, MD, PhD, University of Washington
Julia Kofler, MD, University of Pittsburgh
Amber Nolan, MD, PhD, University of California, San Francisco
Thor Stein, MD, PhD, Boston University
- 02:00 pm **Break (15 minutes)**
- 02:15 pm **Session 3: Progression and Severity**
Goal: *Prioritize necessary steps to determine and describe neuropathological progression of CTE (onset to latest stage).*
30 min presentation and 45 min Panel Discussion
- Topic Presentation:**
- Findings Regarding Progression From 2nd Consensus Conference
Dennis Dickson, MD, Mayo Clinic
- 02:45 pm **Moderated Panel Discussion: Discussion of lessons learned from the 2nd consensus conference, next steps, needs, definitions, priorities and approaches. (45 min)**
Moderator: Gabor Kovacs, MD, PhD, University of Toronto
Panelists:
John Crary, MD, PhD, Mount Sinai
Dennis Dickson, MD, Mayo Clinic
Ian Mackenzie, MD, University of British Columbia
Douglas Smith, MD, University of Pennsylvania
- 03:30 pm **Break (15 minutes)**
- 03:45 pm **Session 4: Prevalence**
Goal: *Determine readiness criteria and steps to assess prevalence of CTE neuropathology.*
30 min presentation and 45 min Panel Discussion
- Topic Presentation:**
- Attempts to Begin Prevalence Estimates
Kevin Bieniek, PhD, University of Texas Health, San Antonio
- 04:15 pm **Moderated Panel Discussion: Discussion of effect of case selection bias on prevalence estimates, the accurate denominator for estimating prevalence, and other disease area brain banks that would be most relevant for estimating prevalence. (45 min)**
Moderator: Marc Del Bigio, MD, PhD, University of Manitoba
Panelists:
Kevin Bieniek, PhD, University of Texas Health, San Antonio
Rebecca Folkerth, MD, NYC Office of Chief Medical Examiner
Matthew Frosch, MD, PhD, Massachusetts General Hospital
Lea Grinberg, MD, PhD, University of California, San Francisco
- 05:00 pm **Adjourn**

Day 2: November 7, 2019

- 08:30 am **Introduction to Day 2: Structure and Goals**
- 09:00 am **Session 5: Brain Donations and Brain Banking**
Goal: *Describe the need for increased brain donation and methods for obtaining appropriate donations. Describe current CTE-relevant brain banking, methods for increasing collaboration, common tissue catalogues, and development of common data elements, e.g., exposure measures and relevant procedural measures.*
30 min presentation and 45 min Panel Discussion
- Topic Presentation:**
- Current State of CTE Brain Banking and Donation/Acquisition
Christopher Nowinski, PhD, Concussion Legacy Foundation
- 09:30 am **Moderated Panel Discussion: Discussion of effect of case selection bias on prevalence estimates, the accurate denominator for estimating prevalence, and other disease area brain banks that would be most relevant for estimating prevalence. (45 min)**
Moderator: *Anna Taylor, PhD, National Institute of Neurological Disorders and Stroke/NIH*
Panelists:
Lili-Naz Hazrati, MD, PhD, Hospital for Sick Children, Toronto
Tish Hevel, The Brain Donor Project
Christopher Nowinski, PhD, Concussion Legacy Foundation
- 10:15 am **Break (30 min)**
- 10:45 am **Session 6: Breakout Sessions: Discussion and Priority Setting (1.25 hours)**
Breakout 1 – Orange Skybox (Floor 1)
Breakout 2 – Blue Skybox (Floor 3)
Breakout 3 – Main Conference Room
- 12:00 pm **Break (30 min)**
- 12:30 pm **Working Lunch: Breakout Sessions Report Back on Setting Priorities for Next Steps**
- 01:30 pm **Summary & Closing**
Walter Koroshetz, MD, National Institute of Neurological Disorders and Stroke/NIH
- 02:00 pm **Adjourn**