

Quality Assurance/Standards Committee

Task:

Identify standards for histological stains
and/or immunoreactions used for
Alzheimer diagnosis

NACC desires standardization of Techniques

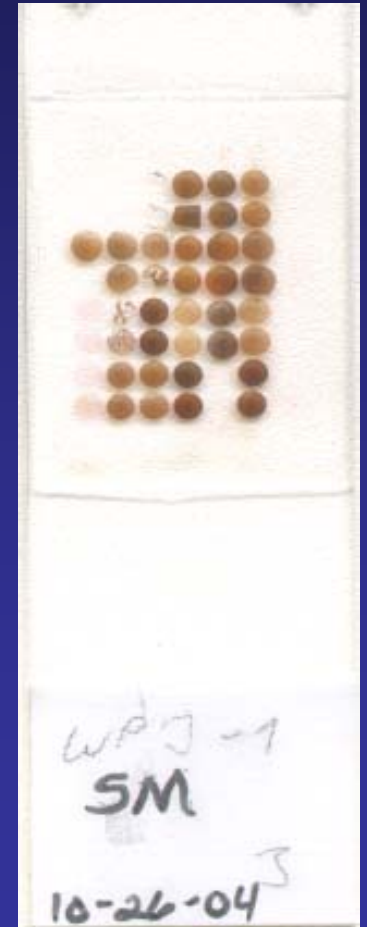
Questions:

1. Which stains/IHCs are most reproducible and reliable?
2. Which stains/IHCs should be recommended (or mandated) for ADC workups?

The BrainNet Europe experience

2000-2003: Microarrays were prepared using tissues from all centers to compare staining on tissues with different preparative techniques

A small number of these microarrays were made available to our US ADC NP Steering Committee

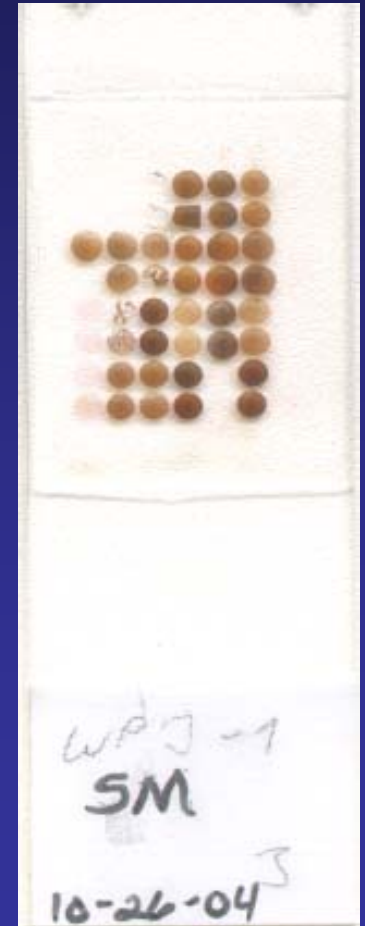


The BrainNet Europe microarrays

Our findings (n=3):

Silver stains showed the most variability,
especially Bielschowsky

Tau IHC was most consistent and most
reliable



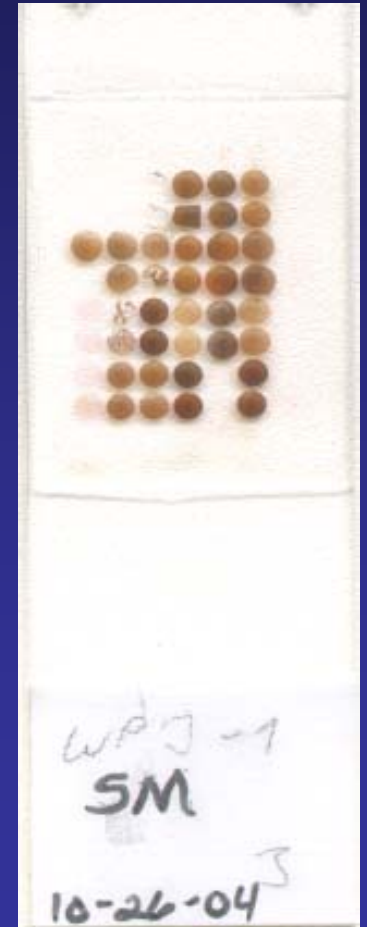
The BrainNet Europe study

(JNEN 2006;65:740-57)
(Thursday, 2:00, Workshop 12)

Their findings (n=20):

Silver stains showed the most variability,
especially Bielschowsky

Tau IHC was most consistent and most
reliable



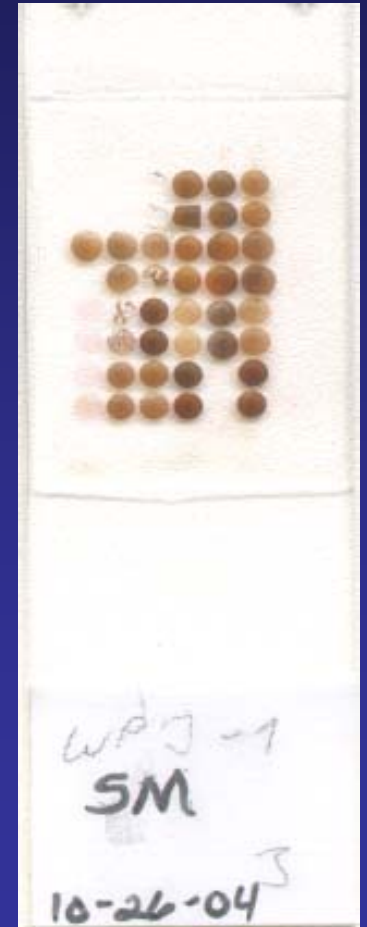
The BrainNet Europe study

(JNEN 2006;65:740-57)
(Thursday, 2:00, Workshop 12)

Their conclusions:

Silver stains are “not recommended for use in interlaboratory settings”

Findings indicate “the need for a neuropathologic diagnostic protocol of AC that is primarily based on the IHC/HPtau methodology”



BrainNet Europe presentations this week:

Today, 2:00: Grading of AD and PD/LBD lesions.
Workshop 1

Today, 2:45: Interlaboratory comparison of
 α -synuclein. Workshop 3

Tuesday, 2:00: BrainNet Europe. Workshop 10

Thursday, 2:00: Interlaboratory comparison of
Alzheimer lesions. Workshop 12

Quality Assurance/Standards Committee

Current project:

Compare Braak & Braak staging for Gallyas staining and *tau* IHC

13 cases, representing Braak stages 0-VI, stained with Gallyas (1st set) or *tau* (2nd set), circulated among committee members for evaluation.

Quality Assurance/Standards Committee

Bill Ellis (U C Davis)

E. Tessa Hedley-White (Mass. General)

Bob Mrak (U Arkansas Med Sci)

Charles White (U Texas Southwestern)

Tom Wisniewski (NYU)