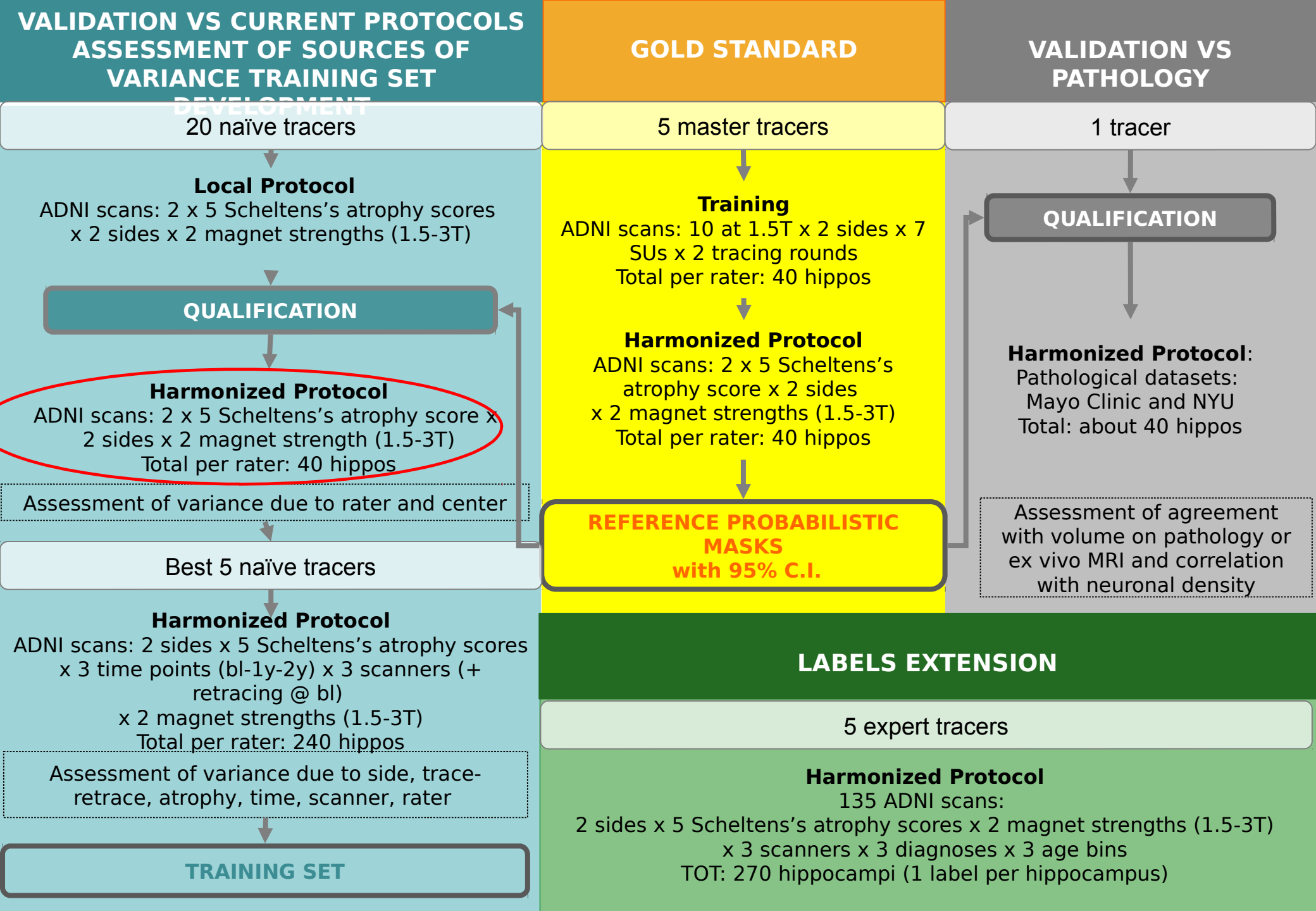
VALIDATION VS CURRENT PROTOCOLS ASSESSMENT OF SOURCES OF VARIANCE TRAINING SET DEVELOPMENT
GOLD STANDARD
VALIDATION VS PATHOLOGY
20 naïve tracers
Local Protocol
ADNI scans: 2 x 5 Scheltens's atrophy scores x 2 sides x 2 magnet strengths (1.5-3T)
QUALIFICATION
Harmonized Protocol
ADNI scans: 2 x 5 Scheltens's atrophy score x 2 sides x 2 magnet strength (1.5-3T)
Total per rater: 40 hippos
Assessment of variance due to rater and center
Best 5 naïve tracers
Harmonized Protocol
ADNI scans: 2 sides x 5 Scheltens's atrophy scores x 3 time points (bl-1y-2y) x 3 scanners (+ retracing @ bl)
x 2 magnet strengths (1.5-3T)
Total per rater: 240 hippos
Assessment of variance due to side, trace-retrace, atrophy, time, scanner, rater
TRAINING SET
5 master tracers
Training
ADNI scans: 10 at 1.5T x 2 sides x 7 SUs x 2 tracing rounds
Total per rater: 40 hippos
Harmonized Protocol
ADNI scans: 2 x 5 Scheltens's atrophy score x 2 sides
x 2 magnet strengths (1.5-3T)
Total per rater: 40 hippos
REFERENCE PROBABILISTIC MASKS
with 95% C.I.
1 tracer
QUALIFICATION
Harmonized Protocol:
Pathological datasets:
Mayo Clinic and NYU
Total: about 40 hippos
Assessment of agreement with volume on pathology or ex vivo MRI and correlation with neuronal density
LABELS EXTENSION
5 expert tracers
Harmonized Protocol
135 ADNI scans:
2 sides x 5 Scheltens's atrophy scores x 2 magnet strengths (1.5-3T)
x 3 scanners x 3 diagnoses x 3 age bins
TOT: 270 hippocampi (1 label per hippocampus)