



The BIOCARD Study

Biomarkers of Cognitive Decline Among Normal
Individuals

Neuropathology Findings
Limited Dataset

Glossary of Terms

Term	Description
Allowable Codes	codes (and their meanings) allowed to be values for that variable
Audit Findings	error rates based on BIOCARD or NIH phase audits error rates are calculated as number of errors / total number of variables examined
Baseline visit	date admitted to NIH phase of BIOCARD study <i>[Note: some data may have been collected prior to this date]</i>
Collection	when the variable information was collected (i.e., Baseline, Follow-up)
Comments	further information about the variable not covered in the above fields
Data Type	numeric or character <i>[Note: Dates are numeric data]</i> numeric or character classifications are strictly related to how the data are stored and not how the data should be analyzed
JHU phase	the study phase at JHU from 2009 - present
Missing OK If	instances (such as skips) or reasons why a blank or missing value is acceptable
NA	not applicable for this variable
NIH / NIH phase	the study phase that was performed at the NIH from 1995-2005
Question Text	the question as it appears on the NACC or BIOCARD data collection forms
Short Description	a short explanation of what the variable means
Source	the name of the NACC form, BIOCARD form, or NIH dataset containing the variable information (or "DERIVED" if the variable was derived) and the variable question number located on the form or in the dataset, if applicable
Unknown Code	the codes for the "unknown", "don't know", or missing values for the variable
Variable Name	the name of the variable in the provided dataset <i>[Note: Variables will follow the NACC naming scheme as closely as possible]</i>

Acronyms and Definitions

AD	Alzheimer's Disease	JHU	The Johns Hopkins University
CDR	Clinical Dementia Rating	MCI	Mild Cognitive Impairment
CERAD	Consortium to Establish a Registry for Alzheimer's Disease	MMSE	Mini-Mental State Examination
CNS	Central Nervous System	NACC	National Alzheimer's Coordinating Center
CSF	Cerebrospinal Fluid	NIA	National Institute on Aging
CVD	Cardiovascular Disease	NINDS	National Institute of Neurological Disorders and Stroke
CVLT	California Verbal Learning Test	NPI-Q	Neuropsychiatric Inventory Questionnaire
FAQ	Functional Assessment Questionnaire	UPDRS	Unified Parkinson's Disease Rating Scale
FTD	Frontotemporal Degenerations	WAIS	Wechsler Adult Intelligence Scale
GDS	Geriatric Depression Scale	WMS	Wechsler Memory Scale

Neuropathology Findings Limited Dataset Characteristics

Number of variables: 65

Order of variables:

1)	JHUANONID	<i>Participant ID Anonymized by JHU</i>
2)	DODMOBL	<i>Months from baseline visit to date of death</i>
3)	NPSEX	<i>Gender</i>
4)	NPDAGE	<i>Age at death</i>
5)	NPGROSS	<i>Gross or microscopic pathology</i>
6)	NPNIT	<i>AD diagnosis, NIA/Reagan Institute criteria</i>
7)	NPCERAD	<i>AD diagnosis, CERAD criteria</i>
8)	NPADRDA	<i>AD diagnosis, ADRDA criteria</i>
9)	NPOCRIT	<i>AD diagnosis, Other neuropathological criteria</i>
10)	NPBRAAK	<i>Braak & Braak Neurofibrillary Stage</i>
11)	NPNEUR	<i>Neuritic plaques</i>
12)	NPDIFF	<i>Diffuse plaques</i>
13)	NPVASC	<i>Ischemic, hemorrhagic or vascular pathology</i>
14)	NPLINF	<i>Large artery cerebral infarcts present</i>
15)	NPMICRO	<i>Cortical microinfarcts</i>
16)	NPLAC	<i>Lacunes present</i>
17)	NPHEM	<i>Hemorrhages present</i>
18)	NPART	<i>Subcortical arteriosclerotic leukoencephalopathy present</i>
19)	NPNEC	<i>Cortical laminar necrosis present</i>
20)	NPSCCL	<i>Medial temporal lobe sclerosis present</i>
21)	NPAVAS	<i>Atherosclerotic vascular pathology present</i>
22)	NPARTER	<i>Arteriosclerosis vascular present</i>
23)	NPAMY	<i>Amyloid angiopathy present</i>
24)	NPOANG	<i>Other angiopathy present</i>
25)	NPVOTH	<i>Other ischemic or vascular pathology present</i>
26)	NPLEWY	<i>Lewy Body pathology</i>
27)	NPLEWYCS	<i>Likelihood of DLB Clinical Syndrome due to DLB pathology</i>
28)	NPPICK	<i>FTD, Pick's Disease</i>
29)	NPCORT	<i>FTD, corticobasal degeneration</i>
30)	NPPROG	<i>FTD, progressive supranuclear palsy</i>
31)	NPFRONT	<i>FTD, frontotemporal dementia and Parkinsonism with tau-positive or argyrophilic inclusions</i>
32)	NPTAU	<i>FTD, tauopathy, other</i>
33)	NPFTD	<i>FTD with ubiquitin-positive (tau-negative) inclusions</i>
34)	NPFTDNO	<i>FTD with no distinctive histopathology</i>

35)	NPFTDSPC	<i>FTD 'Not otherwise specified' present</i>
36)	NPCJ	<i>Creutzfeldt-Jakob disease present</i>
37)	NPPRION	<i>Other prion diseases present</i>
38)	NPMAJOR	<i>Other major pathologic disorders present</i>
39)	NPMPATH1	<i>Major pathological disorder other #1, specified</i>
40)	NPMPATH2	<i>Major pathological disorder other #2, specified</i>
41)	NPMPATH3	<i>Major pathological disorder other #3, specified</i>
42)	NPGENE	<i>Relevant family history information</i>
43)	NPFHSPEC	<i>Family history, specify disorder</i>
44)	NPAPOE	<i>Genetic variants or polymorphisms, Apolipoprotein-E</i>
45)	NPTAUHAP	<i>Genetic variants or polymorphisms, Tau-haplotype</i>
46)	NPPRNP	<i>Genetic variants or polymorphisms, PRNP codon 129</i>
47)	NPCHROM	<i>Genetic or chromosomal abnormalities</i>
48)	NPDNORM	<i>Normal brain (NC)</i>
49)	NPDADP	<i>AD pathology present but insufficient for AD diagnosis</i>
50)	NPDAD	<i>Alzheimer disease (AD)</i>
51)	NPDLEWY	<i>Lewy body disease, with or without AD</i>
52)	NPDVASC	<i>Vascular disease</i>
53)	NPDFTL	<i>Frontotemporal lobar degeneration (FTLD)</i>
54)	NPDHIPP	<i>Hippocampal sclerosis</i>
55)	NPDPRION	<i>Prion-associated disease</i>
56)	NPDOTH1	<i>Other primary and contributing pathologic diagnosis or feature #1</i>
57)	NPDOTH1X	<i>Other primary and contributing pathologic diagnosis or feature #1, specify</i>
58)	NPDOTH2	<i>Other primary and contributing pathologic diagnosis or feature #2</i>
59)	NPDOTH2X	<i>Other primary and contributing pathologic diagnosis or feature #2, specify</i>
60)	NPDOTH3	<i>Other primary and contributing pathologic diagnosis or feature #3</i>
61)	NPDOTH3X	<i>Other primary and contributing pathologic diagnosis or feature #3, specify</i>
62)	NPBRFRZN	<i>Banked frozen brain tissue</i>
63)	NPBRFRM	<i>Formalin-fixed brain tissue</i>
64)	NPBPARF	<i>Paraffin-embedded brain tissue</i>
65)	NPCSFANT	<i>Postmortem CSF</i>

1) Variable Name JHUANONID

Short Description Participant ID Anonymized by JHU

Source NA

Question Text NA

Time of Collection Baseline

Data Type Character

Allowable Codes JHU + 6 numbers

Missing OK If NA

Audit Findings NA

Comments None

2) Variable Name DODMOBL

Short Description Months from baseline visit to date of death

Source DERIVED

Question Text NA

Time of Collection Baseline and Follow-up

Data Type Numeric

Allowable Codes Min = 0
Max = 999

Missing OK If NA

Audit Findings NA

Comments Calculated as months from admit day to date of death as recorded in NP #5.

3)	Variable Name	NPSEX
	Short Description	Gender
	Source	NP #3
	Question Text	Gender
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Male 2 = Female
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

4)	Variable Name	NPDAGE
	Short Description	Age at death
	Source	NP #4
	Question Text	Age at death
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	Min = 20 Max = 120
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

5)	Variable Name	NPGROSS
	Short Description	Gross or microscopic pathology
	Source	NP #6
	Question Text	Does the brain have any gross or microscopic pathology (including any Alzheimer type pathology such as senile plaques and neurofibrillary tangles)?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

6)	Variable Name	NPNIT
	Short Description	AD diagnosis, NIA/Reagan Institute criteria
	Source	NP #7
	Question Text	NIA/Reagan Institute neuropathological criteria used:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = High likelihood of dementia being due to Alzheimer's disease 2 = Intermediate likelihood of dementia being due to Alzheimer's disease 3 = Low likelihood of dementia being due to Alzheimer's disease 4 = Criteria not met 5 = Not done
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

7)	Variable Name	NPCERAD
	Short Description	AD diagnosis, CERAD criteria
	Source	NP #8
	Question Text	CERAD neuropathological criteria used:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Definite Alzheimer's disease 2 = Probable Alzheimer's disease 3 = Possible Alzheimer's disease 4 = Criteria not met 5 = Not done
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

8)	Variable Name	NPADRDA
	Short Description	AD diagnosis, ADRDA criteria
	Source	NP #9
	Question Text	ADRDA/Khachaturian neuropathological criteria used:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Alzheimer's disease 2 = Criteria not met 3 = Not done
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

9)	Variable Name	NPOCRIT
	Short Description	AD diagnosis, Other neuropathological criteria
	Source	NP #10
	Question Text	Other or unspecified neuropathological criteria used(e.g., Tierney, etc.):
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Alzheimer's disease, unspecified 2 = Criteria not met 3 = Not done
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

10)	Variable Name	NPBRAAK
	Short Description	Braak & Braak Neurofibrillary Stage
	Source	NP #11
	Question Text	Braak & Braak Neurofibrillary Stage
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Stage I 2 = Stage II 3 = Stage III 4 = Stage IV 5 = Stage V 6 = Stage VI 7 = Neurofibrillary degeneration not present 8 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

11)	Variable Name	NPNEUR
	Short Description	Neuritic plaques
	Source	NP #12
	Question Text	Neuritic plaques (plaques with argyrophilic dystrophic neurites with or without dense amyloid cores).
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Frequent neuritic plaques 2 = Moderate neuritic plaques 3 = Sparse neuritic plaques 4 = No neuritic plaques 5 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

12)	Variable Name	NPDIFF
	Short Description	Diffuse plaques
	Source	NP #13
	Question Text	Diffuse plaques (plaques with non-compact amyloid and no apparent dystrophic neurites).
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Frequent diffuse plaques 2 = Moderate diffuse plaques 3 = Sparse diffuse plaques 4 = No diffuse plaques 5 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

13)	Variable Name	NPVASC
	Short Description	Ischemic, hemorrhagic or vascular pathology
	Source	NP #14
	Question Text	Is ischemic, hemorrhagic or vascular pathology present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

14)	Variable Name	NPLINF
	Short Description	Large artery cerebral infarcts present
	Source	NP #15
	Question Text	Are one or more large artery cerebral infarcts present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

15)	Variable Name	NPMICRO
	Short Description	Cortical microinfarcts
	Source	NP #16
	Question Text	Are one or more cortical microinfarcts (including 'granular atrophy') present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

16)	Variable Name	NPLAC
	Short Description	Lacunes present
	Source	NP #17
	Question Text	Are one or more lacunes (small artery infarcts and/or hemorrhages) present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

17)	Variable Name	NPHEM
	Short Description	Hemorrhages present
	Source	NP #18
	Question Text	Are single or multiple hemorrhages present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

18)	Variable Name	NPART
	Short Description	Subcortical arteriosclerotic leukoencephalopathy present
	Source	NP #19
	Question Text	Is subcortical arteriosclerotic leukoencephalopathy present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

19)	Variable Name	NPNEC
	Short Description	Cortical laminar necrosis present
	Source	NP #20
	Question Text	Is cortical laminar necrosis present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None
20)	Variable Name	NPSCS
	Short Description	Medial temporal lobe sclerosis present
	Source	NP #21
	Question Text	Is medial temporal lobe sclerosis (including hippocampal sclerosis) present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

21)	Variable Name	NPAVAS
	Short Description	Atherosclerotic vascular pathology present
	Source	NP #22
	Question Text	Is atherosclerotic vascular pathology (of the circle of Willis) present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = None 2 = Mild 3 = Moderate 4 = Severe 5 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

22)	Variable Name	NPARTER
	Short Description	Arteriosclerosis vascular present
	Source	NP #23
	Question Text	Is arteriosclerosis vascular (small parenchymal arteriolar disease) present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = None 2 = Mild 3 = Moderate 4 = Severe 5 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

23)	Variable Name	NPAMY
	Short Description	Amyloid angiopathy present
	Source	NP #24
	Question Text	Is amyloid angiopathy present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = None 2 = Mild 3 = Moderate 4 = Severe 5 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

24)	Variable Name	NPOANG
	Short Description	Other angiopathy present
	Source	NP #25
	Question Text	Is another type of angiopathy (e.g., CADASIL or arteritis) present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

25)	Variable Name	NPVOTH
	Short Description	Other ischemic or vascular pathology present
	Source	NP #26
	Question Text	Is there other pathology related to ischemic or vascular disease not previously specified present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

26)	Variable Name	NPLEWY
	Short Description	Lewy Body pathology
	Source	NP #27
	Question Text	Pathology is consistent with criteria of Consortium on Dementia with Lewy Bodies for:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Lewy body pathology, brainstem predominant type 2 = Lewy body pathology, intermediate or transitional limbic type 3 = Lewy body pathology, diffuse (neocortical) type 4 = Lewy body pathology, unspecified or not further assessed 5 = No Lewy bodies 6 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

27)	Variable Name	NPLEWYCS
	Short Description	Likelihood of DLB Clinical Syndrome due to DLB pathology
	Source	NP #28
	Question Text	Likelihood that DLB Clinical Syndrome due to DLB Pathology
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Low 2 = Intermediate 3 = High 6 = N/A (not applicable)
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

28)	Variable Name	NPPICK
	Short Description	FTD, Pick's Disease
	Source	NP #29
	Question Text	Pick's Disease
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

29)	Variable Name	NPCORT
	Short Description	FTD, corticobasal degeneration
	Source	NP #30
	Question Text	Corticobasal degeneration
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

30)	Variable Name	NPPROG
	Short Description	FTD, progressive supranuclear palsy
	Source	NP #31
	Question Text	Progressive supranuclear palsy
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

31)	Variable Name	NPFRONT
	Short Description	FTD, frontotemporal dementia and Parkinsonism with tau-positive or argyrophilic i
	Source	NP #32
	Question Text	Frontotemporal dementia and Parkinsonism with tau-positive or argyrophilic inclusions:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

32)	Variable Name	NPTAU
	Short Description	FTD, tauopathy, other
	Source	NP #33
	Question Text	Tauopathy, other (e.g., tangle-only dementia and argyrophilic grain dementia):
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

33)	Variable Name	NPFTD
	Short Description	FTD with ubiquitin-positive (tau-negative) inclusions
	Source	NP #34
	Question Text	FTD with ubiquitin-positive (tau-negative) inclusions:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = FTD with motor neuron disease 2 = FTD without motor neuron disease 3 = None present 4 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None
34)	Variable Name	NPFTDNO
	Short Description	FTD with no distinctive histopathology
	Source	NP #35
	Question Text	Is there FTD with no distinctive histopathology (tau-negative, ubiquitin-negative, and no argyrophilic inclusions)?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

35)	Variable Name	NPFTDSPC
	Short Description	FTD 'Not otherwise specified' present
	Source	NP #36
	Question Text	Was FTD 'Not otherwise specified' present (e.g., 'immunostaining for ubiquitin and tau not done')?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

36)	Variable Name	NPCJ
	Short Description	Creutzfeldt-Jakob disease present
	Source	NP #37
	Question Text	Is Creutzfeldt-Jakob disease or variant CJD present?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

37)	Variable Name	NPPRION
	Short Description	Other prion diseases present
	Source	NP #38
	Question Text	Are other prion diseases present (e.g., Gerstmann-Straussler syndrome)?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

38)	Variable Name	NPMAJOR
	Short Description	Other major pathologic disorders present
	Source	NP #39
	Question Text	Are other major pathologic disorders present (not addressed by questions 7 through 38)?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No 3 = Not assessed
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

39) Variable Name NPMPATH1

Short Description Major pathological disorder other #1, specified

Source NP #40a.

Question Text Major Pathological disorders, Other Specify

Time of Collection Follow-Up

Data Type Character

Allowable Codes Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).

Missing OK If NP #39 NPMAJOR ≠ 1 (Yes)

Audit Findings [JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)

No NIH phase audits.

Comments None

40) Variable Name NPMPATH2

Short Description Major pathological disorder other #2, specified

Source NP #40b.

Question Text Major Pathological disorders, Other Specify

Time of Collection Follow-Up

Data Type Character

Allowable Codes Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).

Missing OK If NP #39 NPMAJOR ≠ 1 (Yes)

Audit Findings [JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)

No NIH phase audits.

Comments None

41) Variable Name NPMPATH3

Short Description Major pathological disorder other #3, specified

Source NP #40c.

Question Text Major Pathological disorders, Other Specify

Time of Collection Follow-Up

Data Type Character

Allowable Codes Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).

Missing OK If NP #39 NPMAJOR $\neq$ 1 (Yes)

Audit Findings [JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)

No NIH phase audits.

Comments None

42) Variable Name NPGENE

Short Description Relevant family history information

Source NP #41

Question Text Family history information relevant to neuropathologic diagnosis. Choose one of the following categories that most accurately describes the family information available.

Time of Collection Follow-Up

Data Type Numeric

Allowable Codes
1 = Family history of similar neurodegenerative disorder
2 = Family history of other (dissimilar) neurodegenerative disorder
3 = No family history of similar or dissimilar neurodegenerative disorder
4 = Family history of both similar or dissimilar neurodegenerative disorder

Unknown Code 9

Missing OK If NA

Audit Findings [JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)

No NIH phase audits.

Comments None

43)	Variable Name	NPFHSPEC
	Short Description	Family history, specify disorder
	Source	NP #42
	Question Text	Specify disorder
	Time of Collection	Follow-Up
	Data Type	Character
	Allowable Codes	Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).
	Missing OK If	NP #41 NPGENE = 1, 3 or 9
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

44)	Variable Name	NPAPOE
	Short Description	Genetic variants or polymorphisms, Apolipoprotein-E
	Source	NP #43
	Question Text	Apolipoprotein-E
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = e3, e3 2 = e3, e4 3 = e3, e2 4 = e4, e4 5 = e4, e2 6 = e2, e2
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

45)	Variable Name	NPTAUHAP
	Short Description	Genetic variants or polymorphisms, Tau-haplotype
	Source	NP #44
	Question Text	Tau-haplotype:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = H1, H1 2 = H1, H2 3 = H2, H2 4 = Other polymorphism (e.g. A0)
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

46)	Variable Name	NPPRNP
	Short Description	Genetic variants or polymorphisms, PRNP codon 129
	Source	NP #45
	Question Text	PRNP codon 129:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = M, M 2 = M, V 3 = V, V
	Unknown Code	9
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

47)	Variable Name	NPCHROM
	Short Description	Genetic or chromosomal abnormalities
	Source	NP #46
	Question Text	Genetic or chromosomal abnormalities. Choose below the one known genetic or chromosomal abnormality that best describes the participant:
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = APP mutation 2 = PS1 mutation 3 = PS2 mutation 4 = Tau mutation 5 = α -Synuclein mutation 6 = Parkin mutation 7 = PRNP mutation 8 = Huntingtin mutation 9 = Notch 3 mutation (CADASIL) 10 = Other known genetic mutation (e.g., Abri, neuroserpin) 11 = Down syndrome 12 = Other chromosomal abnormality 13 = No known genetic or chromosomal abnormality 50 = Not assessed
	Unknown Code	99
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

48)	Variable Name	NPDNORM
	Short Description	Normal brain (NC)
	Source	NP #47a
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

49)	Variable Name	NPDADP
	Short Description	AD pathology present but insufficient for AD diagnosis
	Source	NP #47b
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

50)	Variable Name	NPDAD
	Short Description	Alzheimer disease (AD)
	Source	NP #47c
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

51)	Variable Name	NPDLEWY
	Short Description	Lewy body disease, with or without AD
	Source	NP #47d
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

52)	Variable Name	NPDVASC
	Short Description	Vascular disease
	Source	NP #47e
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

53)	Variable Name	NPDFTL
	Short Description	Frontotemporal lobar degeneration (FTLD)
	Source	NP #47f
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

54)	Variable Name	NPDHIPP
	Short Description	Hippocampal sclerosis
	Source	NP #47g
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

55)	Variable Name	NPDPRION
	Short Description	Prion-associated disease
	Source	NP #47h
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

56)	Variable Name	NPDOTH1
	Short Description	Other primary and contributing pathologic diagnosis or feature #1
	Source	NP #47i
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

57)	Variable Name	NPDOTH1X
	Short Description	Other primary and contributing pathologic diagnosis or feature #1, specify
	Source	NP #is
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status? Other #1 specified.
	Time of Collection	Follow-Up
	Data Type	Character
	Allowable Codes	Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).
	Missing OK If	NP #47i NPDOTH1 is blank
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

58)	Variable Name	NPDOTH2
	Short Description	Other primary and contributing pathologic diagnosis or feature #2
	Source	NP #47j
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

59)	Variable Name	NPDOTH2X
	Short Description	Other primary and contributing pathologic diagnosis or feature #2, specify
	Source	NP #47js
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status? Other #2 specified.
	Time of Collection	Follow-Up
	Data Type	Character
	Allowable Codes	Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).
	Missing OK If	NP #47j is blank
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

60)	Variable Name	NPDOTH3
	Short Description	Other primary and contributing pathologic diagnosis or feature #3
	Source	NP #47k
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Primary 2 = Contributing
	Missing OK If	Always OK
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	NP questions 47a through 47k have the same question text. Of these variables, only one may be marked "primary" (1), but any number may be marked as "contributing" (2).

61)	Variable Name	NPDOTH3X
	Short Description	Other primary and contributing pathologic diagnosis or feature #3, specify
	Source	NP #47ks
	Question Text	What are the primary and contributing pathologic diagnoses or features which you judge to be responsible for the participant's cognitive status? Other #3 specified.
	Time of Collection	Follow-Up
	Data Type	Character
	Allowable Codes	Any text or numbers but cannot use single quotes ('), double quotes (""), ampersands (&), or percentage signs (%).
	Missing OK If	NP #47k is blank
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015) No NIH phase audits.
	Comments	None

62)	Variable Name	NPBRFRZN
	Short Description	Banked frozen brain tissue
	Source	NP #48
	Question Text	Is banked frozen brain tissue accessible?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)
	Comments	None

63)	Variable Name	NPBRFRM
	Short Description	Formalin-fixed brain tissue
	Source	NP #49
	Question Text	Is formalin-fixed brain tissue accessible?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)
	Comments	None

64)	Variable Name	NPBPARF
	Short Description	Paraffin-embedded brain tissue
	Source	NP #50
	Question Text	Are paraffin-embedded blocks of brain tissue accessible?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)
	Comments	None

65)	Variable Name	NP-CSFANT
	Short Description	Postmortem CSF
	Source	NP #51
	Question Text	Is banked postmortem cerebrospinal fluid (CSF) accessible?
	Time of Collection	Follow-Up
	Data Type	Numeric
	Allowable Codes	1 = Yes 2 = No
	Missing OK If	NA
	Audit Findings	[JHU Audits]: NP form error rate = 0% (based on 7 forms as of NOV2015)
	Comments	None