Table 1 - Detection of amyloid and tau in the brain using PET
Summary of assays authorized by regulatory authorities in the United States or Europe

Test	Source see manuscript for details	Measure vs SoT	Sens/Spec	AUC	Additional Information
AMYLOID STATUS					
Amyvid® ^{18}F-florbetapir *Eli Lilly and Company*	**US and EU label** (1, 2); End-of-life cohort (N=59)	Visual scan read vs neuropathology	92/100*	-	Findings also published by Clark et al (3)
	Published findings (3); Additional Clark et al. findings	Quantitation vs neuropathology	97/100	-	-
Neuraceq® ^{18}F-florbetaben *Life Molecular Imaging*	**US label** (4); End-of-life cohort (N=82)	Visual scan read vs neuropathology	98/80†	-	-
	EU label (5); End-of-life cohort (N=31)		100/86*	-	-
	Published findings (6, 7); data from 2 additional studies	Quantitation‡ vs neuropathology	87-96/60-96	0.84-0.97	-
Vizamyl™ ^{18}F-flutemetamol *GE Healthcare*	**US label** (8) End-of-life cohort (N=68)	Visual scan read vs neuropathology	88/88†	-	Findings from EU label also published by Curtis et al (9)
	EU label (10); End-of-life cohort (N=68)		86/92*	-	
	Published findings (11, 12); data from 2 additional studies	Visual scan read vs neuropathology	79-100/65-100*	0.89-0.96	Study population in both cases was label cohort plus an additional 38 participants (N=106)
TAU STATUS					
TAUVID™ ^{18}F-flortaucipir *Eli Lilly and Company*	**US label** (13); End-of-life cohort (N=64)	Visual scan read vs neuropathology	92/76†	-	Findings from US label also published by Fleisher et al., where majority read sens/spec=92/80 (14)
	Published findings (15); data from an additional study	Quantitation‡ vs neuropathology	71-94/70-95	-	-

FOOTNOTE

For some EU and US labels, manufacturers provide performance data from more than one study or analysis (e.g., qualitative read, quantitative analysis. For the table, priority was given to findings that 1) were reported in both US and EU labels and 2) were from pivotal studies. Please refer to the respective labels for additional information.
For published findings, only studies with N>30 considered

*Values from majority read of scans
†Median values
‡Performances based on ROC-generated cut-offs

Abbreviations: Aβ, β-amyloid; AUC, area under the curve; LDT, laboratory developed test; PET, positron emission tomography; PPA/NPA, positive percent agreement/negative percent agreement; sens/spec, sensitivity/specificity; SoT, standard of truth

Table 2 - Detection of amyloid and tau in cerebrospinal fluid
Summary of assays authorized by regulatory authorities in the United States (US), or Europe or run as an LDT in the US

Test	**Source** see manuscript for details	**Measure vs SoT**	**Sens/Spec PPA/NPA**	**AUC**	**Additional Information**
AMYLOID STATUS - Aβ42 and Aβ40 CONCENTRATION; Aβ42/40 RATIO; P-tau181/Aβ42 RATIO					
INNOTEST® Aβ42 *Fujirebio*	**EU instructions for use** (16); N=334	Aβ42 concentration vs clinical diagnosis	Aβ42: 85/55	-	Threshold - Not included in documentation
	Published findings (17); data from an additional study	Aβ42 concentration vs neuropathology	Aβ42: 80/82	Aβ42: 0.87	-
Lumipulse® G Aβ42 Aβ42/40 ratio Aβ42/P-tau181 ratio *Fujirebio*	**EU instructions for use** (16); N=94	Concentration vs amyloid PET‡	Aβ42: 95/51	Aβ42: 0.76	See text for performance data based on clinical SoT Thresholds (positive) Aβ42 <916 pg/mL Aβ42/40 ratio <0.062 Aβ42/P-tau181 <15.134
			Aβ42/40 ratio: 88/80	Aβ42/40 ratio: 0.87	
			Aβ42/P-tau181 ratio: 93/80	Aβ42/P-tau181 ratio: 0.88	
	US IVD Label (16, 18); N=292, sample from ADNI	Aβ42/40 concentration ratio vs amyloid PET*	Aβ42/40 ratio: 92/93	-	PPA/NPA excludes *likely positive.* See text for this information Thresholds Positive: Aβ42/40 ratio ≤0.058 Likely positive: 0.059≤ Aβ42/40 ratio ≤0.072 Negative: Aβ42/40 ratio ≥0.073
	Published findings (19-23); data from 5 additional studies	Concentration vs amyloid PET‡	Aβ42: 80-99/51-88	Aβ42: 0.76-0.92	-
			Aβ42/40 ratio: 77-99/77-98	Aβ42/40 ratio: 0.86-0.94	

Elecsys® Aβ42 and P-tau181/ Aβ42 ratio *Roche Diagnostics*	**EU instructions for use** (24); N=277, sample from BioFINDER cohort	Concentration/ratio vs amyloid PET*	Aβ42: 91/73 P-tau181/Aβ42 ratio: 91/89	Aβ42: 0.87 P-tau181/Aβ42 ratio: 0.94	<u>Thresholds (positive)</u> Aβ42 ≤1030 pg/ml P-tau181/Aβ42 ratio >0.023
	Published findings (25, 26); data from 2 additional studies	Concentration/ratio vs neuropathology	-	Aβ42: 0.89-0.92 P-tau181/Aβ42 ratio: 0.96-0.98	-
Euroimmun Aβ42 and Aβ42/40 ratio *Perkin Elmer*	**EU instructions for use** (27); N=154	Concentration vs clinical diagnosis	Aβ42: 89/75	-	PPA/NPA excludes *Intermediate positive.* See text for this information <u>Thresholds</u> Positive: Aβ42 <550 pg/mL Intermediate positive: 551≤ Aβ42 ≤650 pg/mL Negative: Aβ42 >651 pg/mL Positive: Aβ42/40 ratio ≤0.1
			Aβ42/40 ratio: 94/76	-	
	Published findings (28-31); data from 4 additional studies	Concentration/ratio vs amyloid PET‡	Aβ42: 78-83/69-83	Aβ42: 0.81-0.89	-
			Aβ42/40 ratio: 83-100/72-94	Aβ42/40 ratio: 0.87-0.96	
TECAN Aβ42 and Aβ42/40 ratio *IBL International*	**EU instructions for use** (32, 33); N=203	Concentration vs clinical diagnosis	Aβ42: 77/83	-	<u>Thresholds (positive)</u> Aβ42 <888 pg/mL Aβ42/40 ratio <0.068
			Aβ42/40 ratio: 92/94	-	
	Published findings (34); data from an additional study	Concentration/ratio vs amyloid PET†	Aβ42: 82/73	Aβ42: 0.81	-
			Aβ42/40 ratio: 96/88	Aβ42/40 ratio: 0.94	
ADmark® Aβ42 and Aβ42/total tau Index (ATI) *Athena Diagnostics*	Visit company website to request information (35)				
	Published findings (36); data from an additional study	Concentration/ATI vs AD neuropathological manifestations	Aβ42: 92/54	Aβ42: 0.78	-
			ATI: 72/70	ATI: 0.69	

TAU STATUS - P-tau181 CONCENTRATION					
INNOTEST® P-tau181 *Fujirebio*	**EU instructions for use** (16); N=181	Concentration vs clinical diagnosis	87/80	-	Thresholds (positive) - p-Tau181 >61 pg/mL
	Published findings (17); data from an additional study	Concentration vs neuropathology	69/85	0.82	-
Lumipulse® G P-tau181 *Fujirebio*	**EU instructions for use** (16); N=94	Concentration vs. amyloid PET‡	-	0.84	*See Lumipulse® G in amyloid section for Aβ42/P-tau181 performances* See text for performance data based on clinical SoT Threshold - Not included in documentation
	-	-	-	-	No additional publications
Elecsys® P-tau181 *Roche Diagnostics*	**EU instructions for use** (37); N=277, sample from BioFINDER cohort	Concentration vs amyloid PET*	91/89	0.94	Threshold (positive) - P-tau181 >27 pg/ml
	Published findings (25, 26); data from 2 additional studies	Concentration vs neuropathology	-	0.75-0.88	-
Euroimmun P-tau181 *Perkin Elmer*	Visit company website to request information(27)				See text for performance data from company-published AD document
	Published findings (38); data from an additional study	Concentration vs tau PET†	-	-	OPAs 65-77% for tau PET quantitation approach
TECAN P-tau181 *IBL International*	**EU instructions for use** (33); N=101	Concentration vs clinical diagnosis	87/92	0.97	Threshold (positive) - P-tau181 >51 pg/ml
	-	-	-	-	No additional publications
ADmark® P-tau181 Athena Diagnostics	Visit company website to request information (35)				
	Published findings (36); data from an additional study	Concentration vs AD neuropathological manifestations	80/80	0.85	-

FOOTNOTES

For published findings, only studies with N>30 considered

Ranges for Aβ42 concentration and ratios are not necessarily from the same studies

Thresholds shown are for the SoT listed in the SoT column

*PET status determined via visual qualitative read (per instructions of radiotracer manufacturer)

†PET status determined via quantitative approach

‡PET status determined via either visual qualitative read or quantitative approach

Abbreviations: Aβ, β-amyloid; ADNI, Alzheimer's Disease Neuroimaging Initiative; AUC, area under the curve; BDD, Breakthrough Device Designation; IVD, in vitro device; LDT, laboratory developed test; OPA, overall percent agreement; PET, positron emission tomography; PPA/NPA, positive percent agreement/negative percent agreement; sens/spec, sensitivity/specificity; SoT, standard of truth

Table 3 - Detection of amyloid and tau in plasma

Summary of assays authorized by regulatory authorities in the United States (US) or Europe, or run as an LDT in the US

Test	Source see manuscript for details	Measure vs SoT	PPA/NPA	AUC	Additional Information
AMYLOID STATUS - Aβ42/40 RATIO					
PrecivityAD™ Aβ42/40 ratio (+ ApoE status + age) *C2N Diagnostics*	Visit company website to request information (39)				
	Published findings (40, 41); data from 2 additional studies	Concentration vs amyloid PET†	92/77	0.88-0.90	-
ABtest-IA Aβ42/40 ratio *Araclon Biotech*	Visit company website to request information (42)				
	Published findings (43, 44); data from 2 additional studies	Concentration vs amyloid PET†	68-78/53-88	0.88	-
Quest AD-Detect™ Aβ42/40 ratio *Quest Diagnostics*	Visit company website to request information (45)				
	Published findings (46); data from one additional study	Concentration vs amyloid PET	71/89	0.86	-
Sysmex Amyloid-β automated immunoassay system HISCL™-5000/ HISCL™-800 Aβ42/40 ratio *Sysmex*	Visit company website to request information (47)				
	Published findings (48); data from one additional study	Concentration vs amyloid PET* Concentration vs amyloid PET†	88-96/72-84 -	0.87-0.94 0.92-0.93	-
TAU STATUS - P-tau181 CONCENTRATION					
P-tau181 *Quanterix*	Visit company website to request information (49)				
	Published findings (50); data from an additional study	Concentration vs tau PET†	-	0.69-0.73	-

FOOTNOTES
For published findings, only studies with N>30 considered

*PET status determined via visual qualitative read (per instructions of radiotracer manufacturer)
†PET status determined via quantitative approach

Abbreviations: Aβ, β-amyloid; ApoE, apolipoprotein E; AUC, area under curve; LDT, laboratory developed test; PET, positron emission tomography; PPA/NPA, positive percent agreement/negative percent agreement; sens/spec, sensitivity/specificity; SoT, standard of truth

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