Supplementary Table. Human TSPO PET Studies

Pathology	Year	TSPO PET Tracer	A-line	Additional PET Tracers	Cohort	Subject N	Age Mean	Men/ Woman
Aging								
Kumar et al.	2012	11C-PK11195	n		HC Children	10	8.8	5/5
					HC Adults	15	29	7/8
Schuitemaker et al.	2012	11C-PK11195	n		HC	35	53.4	22/13
Hshieh et al.	2019	11C-PRB28	n		HC	65	75	18/47
Katsumi et al.	2020	11C-PBR28	n		HC	36	74.4	6/30
Toppala et al.	2021	11C-PBR28	y	11C-PIB	HC	54	70	24/40
Alzheimer's Disease								
Groom et al.	1995	11C-PK11195	n	18F-FDG	AD	8	n.p.	3/5
Cagnin et al.	2001	11C-PK11195	n		HC	15	57	8/7
					AD	8	63.5	4/4
Versijpt et al.	2003	123I-PK11195	n		HC	9	67	6/3
					AD	10	77	4/6
Kropholler et al.	2007	11C-PK11195	y		HC Young	10	30	7/3
					HC Old	10	70	6/4
					MCI	10	74	6/4
					AD	9	71	6/3
Edison et al.	2008	11C-PK11195	n	11C-PIB	HC	10	64.2	6/4
					AD	13	65.6	8/5
Tomasi et al.	2008	11C-PK11195	n		HC	10	n.p.	n.p.
					AD	10	n.p.	n.p.
Okello et al.	2009	11C-PK11195	n	11C-PIB	HC	10	60.2	6/4
					MCI	14	66.6	9/5
					AD	22	64.9	11/10
Wiley et al.	2009	11C-PK11195	n	11C-PIB	HC	5	72	3/2
					MCI	6	71.8	4/2
					AD	6	76.5	4/2
Gulyás et al.	2011	11C-Vinpocetine	n	11C-PIB, 18F-FDG	HC Young	6	34.8	3/3
					HC Old	6	67.3	3/3
					AD	6	73.4	3/3
Yokokura et al.	2011	11C-PK11195	n	11C-PIB, 18F-FDG	AD	11	70.6	6/5
Kim et al.	2013	11C-PBR28	n		HC	7	68	1/6
					SCD	6	70	2/4
					MCI	7	73	4/3
					AD	6	73	2/4
Kreisl et al.	2013	11C-PBR28	y	11C-PIB	HC	13	62.9	9/4
					MCI	10	72.6	6/4
					AD	19	63.1	11/8

Schuitemaker et al.	2013	11C-PK11195	n		HC	21	68	13/8
					MCI	10	72	7/3
					AD	19	69	11/8
Fan et al.	2015	11C-PK11195	n	11C-PIB, 18F-FDG	HC	14	65	7/9
					AD	8	66	3/5
Fan et al.	2015	11C-PK11195	n	11C-PIB, 18F-FDG	HC	16	65.5	8/8
					MCI	10	67.7	5/5
					AD	10	66.3	4/6
					PDD	11	68.4	7/4
Golla et al.	2015	18F-DPA714	y		HC	6	64.5	1/5
					AD	9	71.8	5/4
Lyoo et al.	2015	11C-PBR28	y		HC	21	55.1	15/6
					MCI	11	72.2	7/4
					AD	25	63	11/14
Suridjan et al.	2015	18F-FEPPA	y		HC	21	61.3	9/12
					AD	21	68.3	11/10
Ramanan et al.	2015	11C-PBR28	n	18F-Florbetapir	HC	7		
					SCD	5	70.6	8/17
					MCI	7		
					AD	6		
Varrone et al.	2015	18F-FEMPA	y	3H-PK11195	HC	7	63.7	3/4
					AD	10	66.9	5/5
Golla et al.	2016	18F-DPA714	y		HC	6	64.5	1/5
					AD	9	73.7	5/4
Kreisl et al.	2016	11C-PBR28	y	11C-PIB	HC	8	61.6	6/2
					AD	14	65.5	6/8
Fan et al.	2017	11C-PK11195	n	11C-PIB	HC	8	65.5	4/4
					MCI	8	67.7	4/4
Kreisl et al.	2017	11C-PBR28	n	11C-PIB	AD	1	66	w
Kreisl et al.	2017	11C-PBR28	y	11C-PIB, 18F-FDG	HC	15	63.7	12/3
					PCA	11	64.3	5/6
					AD	11	65.6	6/5
Mabrouk et al.	2017	18F-FEPPA	y		HC	39	n.p.	n.p.
					AD	18	n.p.	n.p.
					PD	16	n.p.	n.p.
Parbo et al.	2017	11C-PK11195	n	11C-PIB	HC	15	68.3	6/9
					MCI Aβ-	16	65.8	7/9
					MCI Aβ+	26	73.3	17/9
Dani et al.	2018	11C-PBR28	y	18F-Flutemetamol,	HC	19	64.2	n.p.
				18F-Flortaucipir	MCI Aβ-	7	68.7	n.p.
					MCI Aβ+	9	76.6	n.p.
					AD	16	73.7	n.p.
Fan et al.	2018	11C-PBR28	y	18F-Flutemetamol	HC	9	65.4	n.p.
					MCI	13	70.9	n.p.

Knezevic et al.	2018	18F-FEPPA	y	11C-PIB	HC	14	67.1	5/9
					MCI	11	71.9	5/6
Hamelin et al.	2018	18F-DPA714	n	11C-PIB	HC	17	69.4	n.p.
					AD	52	67	n.p.
Parbo et al.	2018	11C-PK11195	n	11C-PIB,	HC	20	67	12/8
				18F-Flortaucipir	MCI/AD Low Aβ	10	65	6/4
					MCI/AD High Aβ	16	72	10/6
Passamonti et al.	2018	11C-PK11195	n		HC	13	68	5/8
					PSP	16	68.4	10/6
					AD	16	68.7	9/7
Femminella et al.	2019	11C-PBR28	y	18F-Flutemetamol	HC	18	64.3	7/11
					MCI	37	71.8	20/17
Passamonti et al.	2019	11C-PK11195	n	11C-PIB	HC	14	68.3	6/8
					AD	28	72.7	16/12
Cisbani et al.	2020	18F-FEPPA	y		HC	11	70.0	5/6
					MCI	11	70.9	5/6
					AD	10	65.7	5/5
Ismail et al.	2020	11C-PK11195	n	11C-PIB,	MCI Low Aβ	16	66	8/8
				18F-Flortaucipir	MCI High Aβ	27	73	18/9
Jorge et al.	2020	11C-PK11195	n	11C-PIB	HC	17	66	10/7
					AD	20	65	10/10
Lindgren et al.	2020	11C-PBR28	n		HC Twin	8	74	n.p.
					MCI Twin	8	74	n.p.
Low et al.	2020	11C-PK11195	n	11C-PIB	HC	14	70.4	8/6
					AD/MCI Aβ+	28	72.2	16/12
Malpetti et al.	2020	11C-PK11195	n	18F-Flortaucipir	HC	29	68.3	14/15
					AD/MCI Aβ+	26	72.1	14/12
Nicastro et al.	2020	11C-PK11195	n		HC	24	70.3	13/11
					AD/MCI Aβ+	28	71.9	15/13
Parbo et al.	2020	11C-PK11195	n		AD/MCI	27	73.6	19/8
Tondo et al.	2020	11C-PK11195	n	18F-FDG	EOAD	12	60.1	5/7
Zou et al.	2020	11C-PBR28	n	18F-Florbetaben,	HC Aβ-	17	67.6	5/12
				18F-MK-6240	HC Aβ+	7	73.1	4/3
					MCI Aβ-	10	75.8	7/4
					AD Aβ+	23	65.8	20/3
Klein et al.	2021	11C-PBR28	n	18F-Florbetaben,	HC Aβ-	16	67.8	5/11
				18F-MK-6240	HC Aβ+	6	71.3	3/3
					MCI Aβ-	9	74	6/3
					AD Aβ+	23	64.7	19/4
Pascoal et al.	2021	11C-PBR28	n	18F-AZD4694,	HC young	22	23	8/14
				18F-MK-6240	HC Old	64	72	14/40
					MCI	28	73	17/11
					AD	16	70	6/10
Tondo et al.	2021	11C-PK11195	n	18F-FDG	MCI	8	63.87	5/3

Xiang et al.	2021	18F-GE180	n	18F-FDG	HC	14	70.3	7/7
					AD	12	65.6	4/8
Lewy Body Disease								
Iannaccone et al.	2013	11C-PK11195	n		HC	11	n.p.	n.p.
					LBD	6	72	4/2
					PD	6	70.2	3/3
Nicastro et al.	2020	11C-PK11195	n	11C-PIB	HC	20	71	10/10
					LBD	19	73.5	15/4
Mak et al.	2021	11C-PK11195	n	18F-Flortaucipir	LBD	4	n.p.	n.p.
Parkinson's Disease								
Ouchi et al.	2005	11C-PK11195	n	11C-CFT	HC	10	59.6	4/6
					PD	10	53.1	4/6
Gerhard et al.	2006	11C-PK11195	n	18F-Dopa	HC	11	56.9	5/6
					PD	18	59	13/5
Edison et al.	2013	11C-PK11195	n	11C-PIB, 18F-FDG	HC	10	64.2	6/4
					PD	8	68.2	5/3
					PDD	11	69.3	7/4
Iannaccone et al.	2013	11C-PK11195	n		HC	11	n.p.	n.p.
					LBD	6	72	4/2
					PD	6	70.2	3/3
Kobylecki et al.	2013	11C-PK11195	n		HC	11	55.7	5/5
					PD	9	60.3	4/5
					MSA/PSP	11	63.2	8/3
Fan et al.	2015	11C-PK11195	n	11C-PIB, 18F-FDG	HC	16	65.5	8/8
					MCI	10	67.7	5/5
					AD	10	66.3	4/6
					PDD	11	68.4	7/4
Jucaite et al.	2015	11C-PBR28	y	18F-FE-PE21	PD	24	62	21/3
Koshimori et al.	2015	18F-FEPPA	y		HC	16	n.p.	n.p.
					PD	16	64.3	11/5
Mabrouk et al.	2017	18F-FEPPA	y		HC	39	n.p.	n.p.
					AD	18	n.p.	n.p.
					PD	16	64.3	11/5
Kang et al.	2018	11C-PK11195	y		HC	19	56.3	12/7
					PD	20	63.7	14/6
Nicastro et al.	2019	11C-PK11195	n		HC	16	69.7	8/8
					PDD	5	73.4	5/0
Jucaite et al.	2021	11C-PBR28	y		MSA	66	59	20/46
					PD	24	62	3/21
Lavisse et al.	2021	18F-DPA714	n	11C-PE2I	HC	28	57.4	13/15
					PD	24	63.5	16/8
Mullin et al.	2021	11C-PK11195	n	18F-Dopa	HC	20	66.8	12/8
					GBA carriers	9	62.9	4/5

Frontotemporal Dementia								
Cagnin et al.	2004	11C-PK11195	n		HC	8	62	n.p.
					FTLD	5	61	n.p.
Kim et al.	2019	11C-PBR28	y	11C-PIB, 18F-FDG	HC	22	54.4	15/7
					FTLD	4	54.3	3/1
Walterfang et al.	2020	11C-PK11195	n		HC	9	32	4/5
					NPC	9	32	4/5
Bevan-Jones et al.	2020	11C-PK11195	n	18F-Flortaucipir	HC	15	69	7/8
					nfvPPA	10	71	3/7
					svPPA	11	68	9/2
					bvPPA	10	60	5/5
Malpetti et al.	2021	11C-PK11195	n	18F-Flortaucipir	HC	15	68.8	7/8
					FTD	7	59.3	3/4
Pascual et al.	2021	11C-PBR28	y	11C-PIB,	HC	12	68.9	6/6
				18F-Flortaucipir	svPPA	8	66.3	3/5
Corticobasal Degeneration								
Gerhard et al.	2004	11C-PK11195	n		HC	5	61	1/4
					CBD	4	70	2/2
Progressive Supranuclear Palsy								
Gerhard et al.	2006	11C-PK11195	n		HC	7	62	3/4
					PSP	4	66	2/2
Passamonti et al.	2018	11C-PK11195	n	11C-PIB	HC	13	68	5/8
					PSP	16	68.7	10/6
					AD	16	68.7	9/7
Malpetti et al.	2020	11C-PK11195	n	18F-Flortaucipir	HC	16	n.p.	n.p.
					PSP	17	68.3	10/7
Malpetti et al.	2021	11C-PK11195	n	18F-Flortaucipir	PSP	17	68.3	10/7
Amyotrophic Lateral Sclerosis								
Turner et al.	2004	11C-PK11195	n		HC	14	58	9/5
					ALS	10	50	6/4
Zurcher et al.	2015	11C-PBR28	n		HC	10	51.1	6/4
					ALS	10	53.2	7/3
Paganoni et al.	2018		n		HC	10	54	5/5
					PLS	10	61.8	7/3
Alshikho et al.	2018	11C-PBR28	n		HC	21	47	12/9
					ALS	53	53.1	21/32
					PLS	11	62.4	7/4
Ratai et al.	2018	11C-PBR28	n		ALS	40	54	37/17
Paganoni et al.	2019	11C-PBR28	n		ALS	16	52.9	8/8
Tondo et al.	2020	11C-PK11195	n		HC	10	44.2	4/6
					ALS carriers	4	48	1/3
					ALS	6	61.2	1/5

Van Weehaeghe et al.	2020	18F-DPA714	y		HC	8	52.1	3/5
					ALS	7	58.9	5/2
		11C-PBR28	n		HC	7	54.6	4/3
					ALS	7	53.4	5/2
Babu et al.	2021	11C-PBR28	n		ALS	22	n.p.	n.p.
Makary et al.	2021	11C-PBR28	n		ALS	28	51	15/13
Huntington Disease								
Pavese et al.	2006	11C-PK11195	n	11C-Raclopride	HC	10	47.4	5/5
					HD	11	47.9	7/4
Tai et al.	2007	11C-PK11195	n	11C-Raclopride	HD carriers	11	42.2	5/6
Politis et al.	2008	11C-PK11195	n	11C-Raclopride	HD carriers	10	41.9	5/5
					HD	9	46.8	4/5
Politis et al.	2011	11C-PK11195	n	11C-Raclopride	HC	16	46	14/2
					HD carriers	8	41	4/4
					HD	8	48	4/4
Politis et al.	2015	11C-PK11195	n		HC	12	39.4	7/5
					HD carriers	12	41.1	5/7
Lois et al.	2018	11C-PBR28	n		HC	6	57.8	2/4
					HD Carrier	1	38	M
					HD	7	56	5/2
Rocha et al.	2021	11C-ER176	n		HC	6	43.28	1/5
					HD carriers	6	38.15	2/4
					HD	6	50.75	0/6
Traumatic Brain Injury								
Folkersma et al.	2011	11C-PK11195	n		HC	7	n.p.	4/3
					TBI	8	40.5	5/3
Ramlackhansingh et al.	2011	11C-PK11195	n		TBI	10	43	9/1
Scott et al.	2018	11C-PBR28	y		HC	28	40.8	23/5
					TBI	15	42.3	13/2
Marklund et al.	2021	11C-PK11195	n	18F-THK5317	HC	9	26	4/5
					rSRC	12	26	6/6
					TBI	6	27	4/2

AD: Alzheimer's Disease, Aβ: Amyloid beta, ALS: Amyotrophic lateral sclerosis, A-line: Arterial line, bvPPA: Behavioral variant primary progressive aphasia, CBD: Corticobasal degeneration, FTLD: Frontotemporal lobar degeneration, GBA: Glucocerebrosidase gene mutation, HC: Healthy Control, HD: Huntington Disease, LBD: Lewy Body Disease, MCI: Mild cognitive impairment, N: Number, NPC: Niemann-Pick type C disease, MSA: Multiple system atrophy, n: No, nfvPPA: Non-fluent variant primary progressive aphasia, n.p.: no provided, PCA: Posterior cortical atrophy, PD: Parkinson's disease, PDD: Parkinson disease with dementia, PET: Positron emission tomography, PLS: Primary lateral sclerosis, PSP: Progressive supranuclear palsy, rSRC: Repeated sports-related concussions, SCD: Subjective cognitive decline, svPPA: Semantic variant primary progressive aphasia, TBI: Traumatic brain injury, PSPO: Translocator protein, y: Yes.