

# Consortium PSYCHIATRICUM

## APPENDIX 2. SUPPLEMENTARY DATA TO:

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A comparison of regional brain volumes in older adults with and without  
history of COVID-19.

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**This appendix is a part of the original submission.**

The appendix is posted as it was supplied by the authors.

Table 4. Detailed statistical table on the brain regions differences between COVID+ and COVID- participants (matched by age, gender, history of hypertension and Type II diabetes, *n*=44)

Freesurfer's brain region, mm <sup>3</sup>	COVID-			COVID +			Test statistic	
	N	Median	Average Rank	N	Median	Average Rank	U	P <sup>a</sup>
Bankssts RH	22	1568.0	21.3	22	1643.5	23.7	237.0	0,526
Caudal anterior cingulate RH	22	1662.5	21.2	22	1697.0	23.8	235.5	0,489
Caudal middle frontal RH	22	5061.0	24.3	22	4953.5	20.7	229.5	0,354
Cuneus RH	22	2975.5	25.6	22	2843.0	19.4	184.5	0,108
Entorhinal RH	22	1729.5	21.6	22	1765.0	23.4	233.5	0,647
Fusiform RH	22	8143.5	22.8	22	7548.5	22.2	236.5	0,860
Inferior parietal RH	22	11166.0	23.0	22	11031.5	22.0	241.5	0,787
Inferior temporal RH	22	8989.0	22.8	22	8901.5	22.3	206.5	0,897
Isthmus cingulate RH	22	2209.5	25.5	22	1993.5	19.5	220.0	0,116
Lateral occipital RH	22	9944.5	22.5	22	10325.0	22.5	212.5	0,991
Lateral orbitofrontal RH	22	6571.5	23.5	22	6454.0	21.5	225.5	0,597
Lingual RH	22	6114.0	24.5	22	6002.0	20.5	223.0	0,307
Medial orbitofrontal RH	22	4884.5	22.6	22	4851.0	22.4	240.5	0,972
Middle temporal RH	22	9456.0	22.7	22	9764.0	22.3	231.0	0,916
Parahippocampal RH	22	1798.0	23.5	22	1711.5	21.5	202.0	0,606
Paracentral RH	22	3622.0	24.6	22	3597.5	20.4	197.0	0,286
Pars opercularis RH	22	3341.5	23.8	22	3318.5	21.3	186.0	0,519
Pars orbitalis RH	22	2376.5	24.1	22	2411.0	20.9	214.0	0,405
Pars triangularis RH	22	3552.0	21.6	22	3609.5	23.4	231.0	0,639
Pericalcarine RH	22	2265.5	23.5	22	2252.0	21.5	239.5	0,622
Postcentral RH	22	8659.5	25.0	22	8104.5	20.0	232.5	0,205
Posterior cingulate RH	22	2989.0	26.0	22	2684.0	19.0	235.0	0,073
Precentral RH	22	11442.0	23.9	22	11559.5	21.1	209.0	0,460
Precuneus RH	22	8370.5	23.6	22	8213.5	21.4	189.5	0,565
Rostral anterior cingulate RH	22	1658.5	21.0	22	1763.0	24.0	181.5	0,439
Rostral middle frontal RH	22	12127.5	20.7	22	12392.5	24.3	208.0	0,354
Superior frontal RH	22	17638.0	25.0	22	16878.0	20.0	223.0	0,193
Superior parietal RH	22	10955.0	23.8	22	10945.5	21.2	218.0	0,489
Superior temporal RH	22	9364.0	22.6	22	9244.0	22.4	176.0	0,953
Supramarginal RH	22	8435.0	23.9	22	8183.5	21.1	202.5	0,460
Frontal pole RH	22	970.0	20.0	22	1082.0	25.0	235.5	0,205
Temporal pole RH	22	2365.5	22.1	22	2356.5	22.9	204.0	0,842
Transverse temporal RH	22	781.5	23.4	22	766.0	21.6	238.0	0,630
Insula RH	22	6493.0	24.3	22	6286.5	20.7	176.5	0,342
Bankssts LH	22	1937.0	23.1	22	1873.0	21.9	212.5	0,742
Caudal anterior cingulate LH	22	1257.0	19.1	22	1393.0	25.9	210.5	0,076
Caudal middle frontal LH	22	5158.5	24.6	22	4914.0	20.4	231.5	0,286
Cuneus LH	22	2740.5	24.3	22	2593.5	20.7	220.0	0,342
Entorhinal LH	22	1851.5	21.9	22	1821.5	23.1	221.5	0,769
Fusiform LH	22	7859.5	20.8	22	8348.5	24.2	242.0	0,379
Inferior parietal LH	22	9643.0	22.5	22	9472.5	22.5	209.5	1,000
Inferior temporal LH	22	9269.0	21.6	22	9840.5	23.4	171.0	0,630
Isthmus cingulate LH	22	2369.0	25.9	22	2185.0	19.1	170.0	0,076
Lateral occipital LH	22	10242.0	24.3	22	10113.0	20.8	220.5	0,366
Lateral orbitofrontal LH	22	6422.0	22.2	22	6444.5	22.8	201.5	0,879
Lingual LH	22	5692.5	22.8	22	5385.0	22.3	206.5	0,897
Medial orbitofrontal LH	22	4735.0	21.8	22	4805.0	23.2	224.5	0,734
Middle temporal LH	22	8941.5	22.4	22	9077.5	22.6	239.5	0,972
Parahippocampal LH	22	1760.5	20.5	22	1906.0	24.5	207.0	0,291
Paracentral LH	22	3112.5	23.8	22	3098.5	21.2	225.0	0,489
Pars opercularis LH	22	3897.5	21.1	22	3849.0	23.9	178.0	0,474
Pars orbitalis LH	22	2120.0	24.0	22	2025.0	21.0	184.0	0,439

Pars triangularis LH	22	2779.5	21.3	22	3087.0	23.8	193.5	0,519
Pericalcarine LH	22	1938.5	24.0	22	1960.5	21.0	192.5	0,432
Postcentral LH	22	9026.5	23.6	22	8726.0	21.4	217.5	0,565
Posterior cingulate LH	22	2669.5	24.8	22	2571.5	20.3	208.5	0,245
Precentral LH	22	12094.5	24.7	22	11881.5	20.3	215.0	0,255
Precuneus LH	22	7895.5	25.2	22	7518.5	19.8	209.0	0,170
Rostral anterior cingulate LH	22	1991.0	19.6	22	2065.0	25.4	211.5	0,133
Rostral middle frontal LH	22	12091.5	21.7	22	11794.0	23.3	213.0	0,681
Superior frontal LH	22	18594.5	24.1	22	17889.5	20.9	197.0	0,405
Superior parietal LH	22	10829.0	22.6	22	11078.5	22.4	240.5	0,953
Superior temporal LH	22	9951.0	21.7	22	10267.5	23.3	227.0	0,681
Supramarginal LH	22	8944.5	24.1	22	8804.5	20.9	236.0	0,405
Frontal pole LH	22	866.0	20.7	22	886.0	24.3	235.0	0,342
Temporal pole LH	22	2250.5	21.5	22	2368.5	23.5	203.5	0,597
Transverse temporal LH	22	1074.0	25.8	22	922.0	19.2	166.5	0,091
Insula LH	22	6665.0	25.8	22	6371.0	19.3	220.0	0,093
Left lateral ventricle	22	15615.7	24.0	22	13477.7	21.0	241.5	0,446
Left inferior lateral ventricle	22	642.9	22.5	22	612.2	22.5	205.0	0,991
Left Cerebellum White Matter	22	11479.3	21.5	22	11806.0	23.5	229.5	0,614
Left Cerebellum Cortex	22	48944.0	23.5	22	48400.3	21.5	201.0	0,614
Left Thalamus Proper	22	5993.3	23.0	22	5884.4	22.0	196.0	0,805
Left Caudate	22	3189.7	24.0	22	2991.8	21.0	166.5	0,446
Left Putamen	22	4235.3	21.2	22	4296.7	23.8	228.0	0,489
Left Pallidum	22	1606.9	19.5	22	1686.3	25.5	201.5	0,124
3rd Ventricle	22	1580.2	22.7	22	1486.9	22.3	221.5	0,916
4th Ventricle	22	1785.2	24.2	22	1740.9	20.8	233.0	0,379
Brain Stem	22	20153.0	22.8	22	19270.5	22.2	188.0	0,879
Left Hippocampus	22	3531.4	24.3	22	3403.2	20.7	210.0	0,354
Left Amygdala	22	1267.5	25.5	22	1199.3	19.5	239.5	0,119
CSF	22	1018.9	23.6	22	993.8	21.4	213.0	0,581
Left Accumbens area	22	462.7	21.6	22	503.1	23.4	187.0	0,656
Left ventral DC	22	3572.7	20.9	22	3646.3	24.1	203.0	0,418
Left vessel	22	48.3	25.2	22	33.2	19.8	209.0	0,163
Left choroid plexus	22	699.6	24.9	22	664.9	20.1	217.0	0,218
Right Lateral Ventricle	22	13803.7	24.0	22	12007.8	21.0	209.5	0,432
Right Inferior Lateral Ventricle	22	664.6	22.2	22	716.4	22.8	165.0	0,860
Right Cerebellum White Matter	22	11513.5	22.9	22	11286.6	22.1	187.5	0,824
Right Cerebellum Cortex	22	49002.3	22.6	22	49633.0	22.4	221.5	0,953
Right Thalamus Proper	22	6071.6	23.0	22	6012.9	22.0	222.0	0,787
Right Caudate	22	3406.2	23.8	22	3247.2	21.2	207.0	0,504
Right Putamen	22	4244.5	19.9	22	4430.8	25.1	213.5	0,185
Right Pallidum	22	1518.1	20.4	22	1589.5	24.6	197.0	0,286
Right Hippocampus	22	3502.0	24.3	22	3379.2	20.7	219.0	0,342
Right Amygdala	22	1521.3	23.0	22	1490.7	22.0	237.0	0,787
Right Accumbens area	22	440.4	22.6	22	439.2	22.4	240.0	0,972
Right ventral DC	22	3423.4	21.6	22	3503.8	23.4	198.5	0,647
Right vessel	22	21.7	23.3	22	21.8	21.7	219.5	0,681
Right choroid plexus	22	677.0	23.8	22	637.2	21.2	241.0	0,489
5th Ventricle	22	0.0	23.5	22	0.0	21.5	174.5	0,153
White matter hypointensities	22	2958.0	24.1	22	2520.0	20.9	236.5	0,418
Non-white matter hypointensities	22	0.0	22.5	22	0.0	22.5	230.0	0,974
Optic Chiasm	22	199.9	22.3	22	197.0	22.8	234.5	0,897
Cingulate cortex posterior	22	857.2	22.1	22	916.5	22.9	223.0	0,842
Cingulate cortex mid posterior	22	390.6	19.9	22	430.9	25.1	173.5	0,177
Cingulate cortex central	22	386.4	21.9	22	395.4	23.1	202.5	0,760
Cingulate cortex mid anterior	22	394.9	22.8	22	396.1	22.3	212.5	0,897

Cingulate cortex anterior	22	800.0	22.3	22	812.7	22.7	215.5	0,916
Total gray matter volume	22	590874	21.8	22	586635	23.2	2451.0226.5	0.355716

*Note:* RH – right hemisphere, LH – left hemisphere.