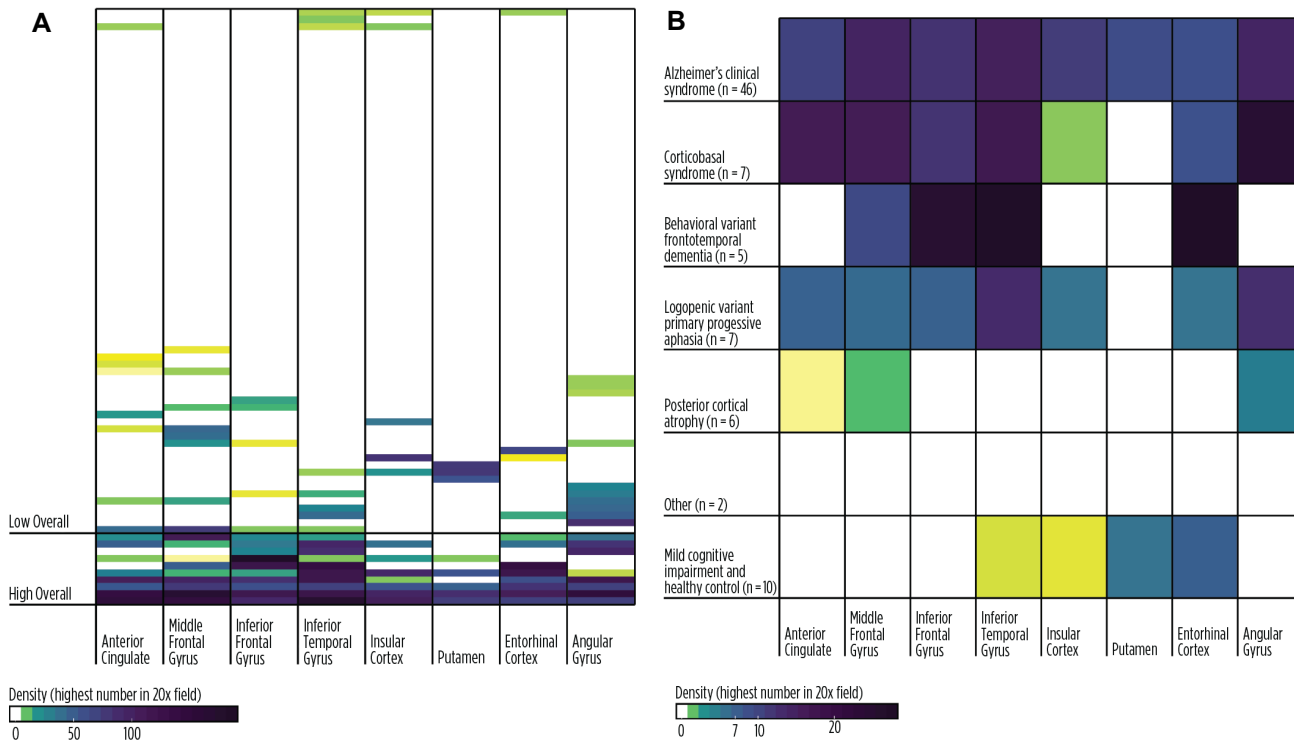


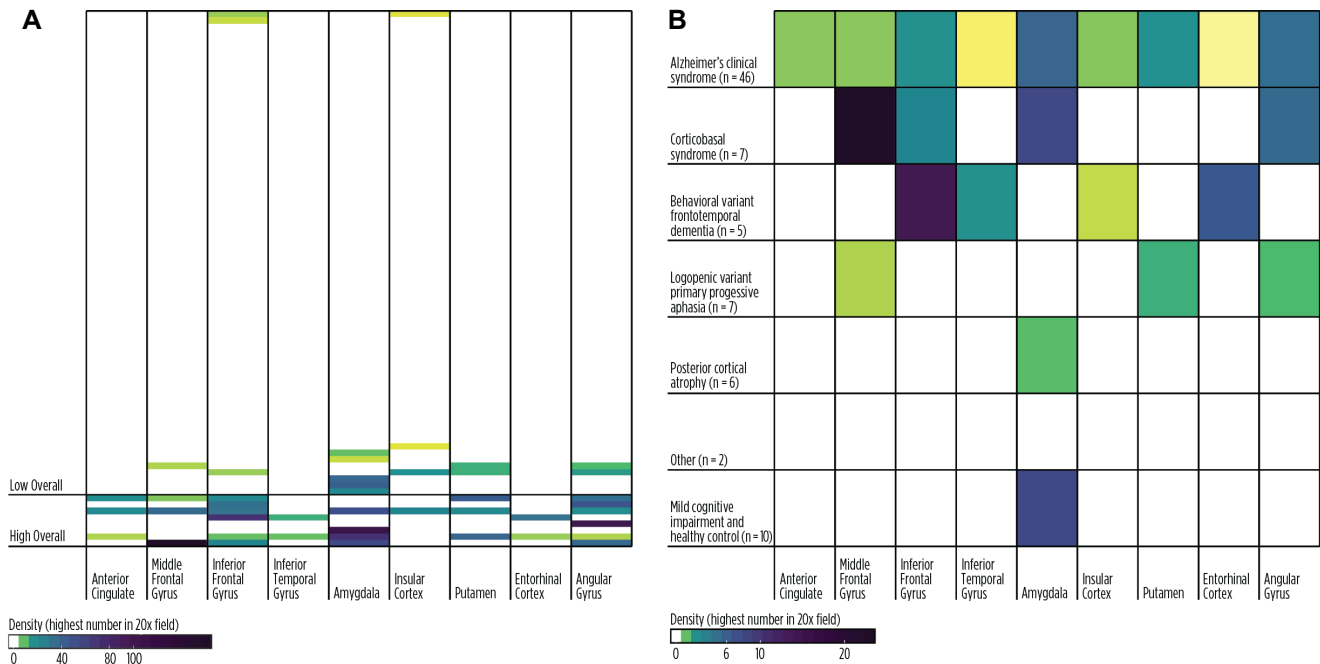
SUPPLEMENTARY FIGURES AND TABLES



Supplemental Figure 1. ATAC Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of ATAC density and anatomic distribution by K-means algorithm. B) Mean density of ATAC pathology by anatomic region and clinical diagnosis.

Supplemental Table 1. Demographics by ATAC clustering. SD = standard deviation, NFT = neurofibrillary tangle

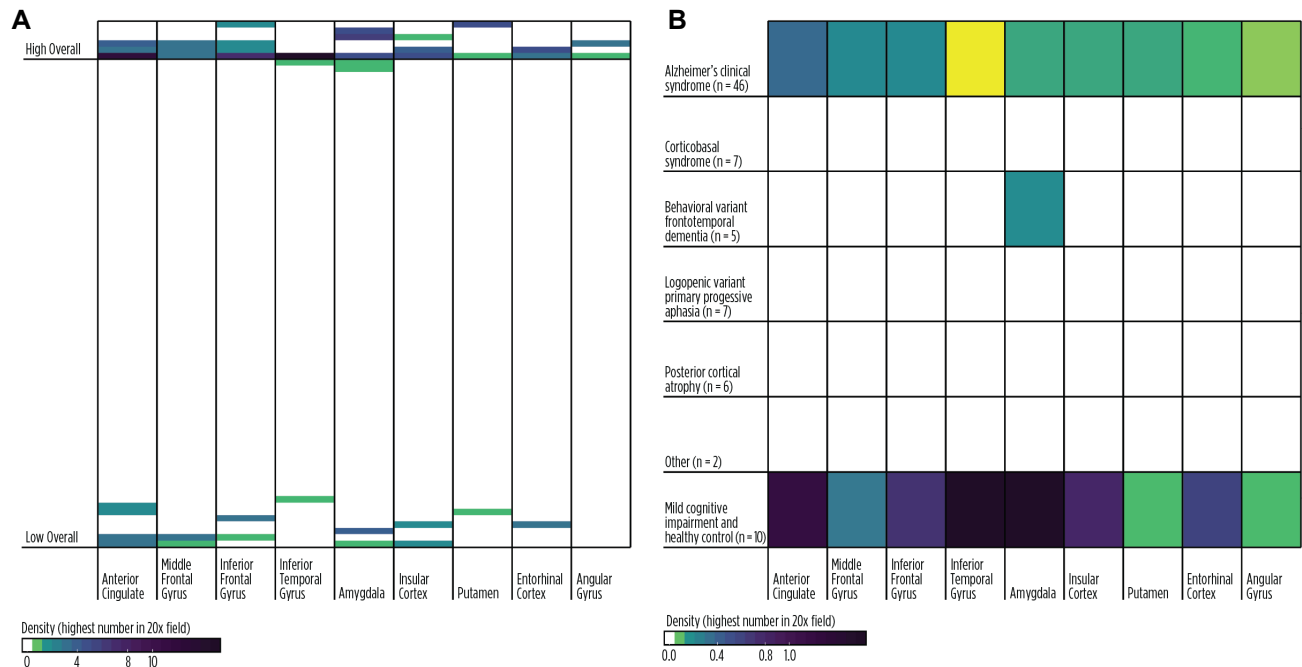
ATAC Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Low	73	29	58	71.48 (11.10)	9.83 (3.46)	15.82 (3.14)	47	6
High	10	20	100	79 (7.32)	10.3 (3.53)	14.29 (5.94)	30	6
<i>p-value</i>	—	<i>0.838</i>	<i>0.024</i>	<i>0.019</i>	<i>0.871</i>	<i>0.882</i>	<i>0.447</i>	<i>0.709</i>



Supplemental Figure 2. GM-TSA Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of GMA-TSA density and anatomic distribution by K-means algorithm. B) Mean density of GMA-TSA pathology by anatomic region and clinical diagnosis.

Supplemental Table 2. Demographics by GM-TSA clustering. SD = standard deviation, NFT = neurofibrillary tangle

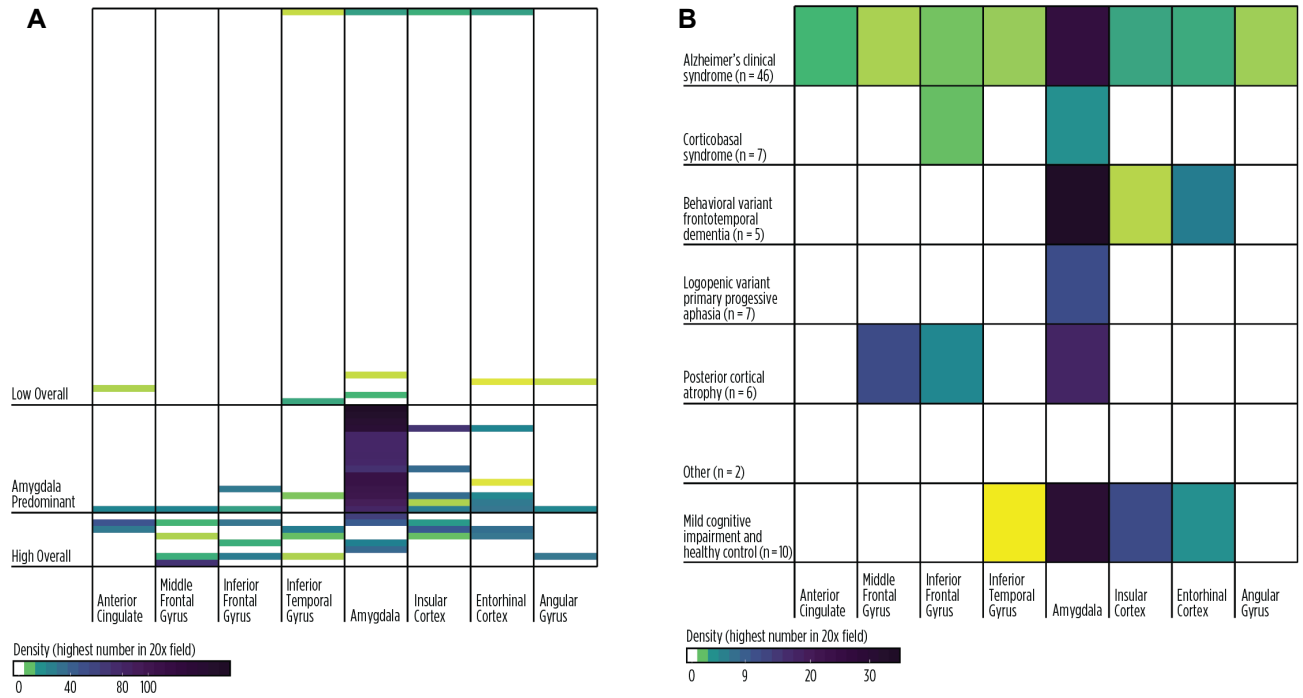
GM-TSA Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Low	75	33	59	72.05 (10.97)	9.09 (3.85)	15.60 (3.42)	46	6
High	8	25	100	75.38 (11.13)	12.38 (4.21)	16.67 (3.93)	38	6
<i>p-value</i>	—	0.935	0.056	0.308	0.058	0.475	0.953	0.622



Supplemental Figure 3. GM-GFA Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of GMA-GFA density and anatomic distribution by K-means algorithm. B) Mean density of GMA-GFA pathology by anatomic region and clinical diagnosis.

Supplemental Table 3. Demographics by GM-GFA clustering. SD = standard deviation, NFT = neurofibrillary tangle

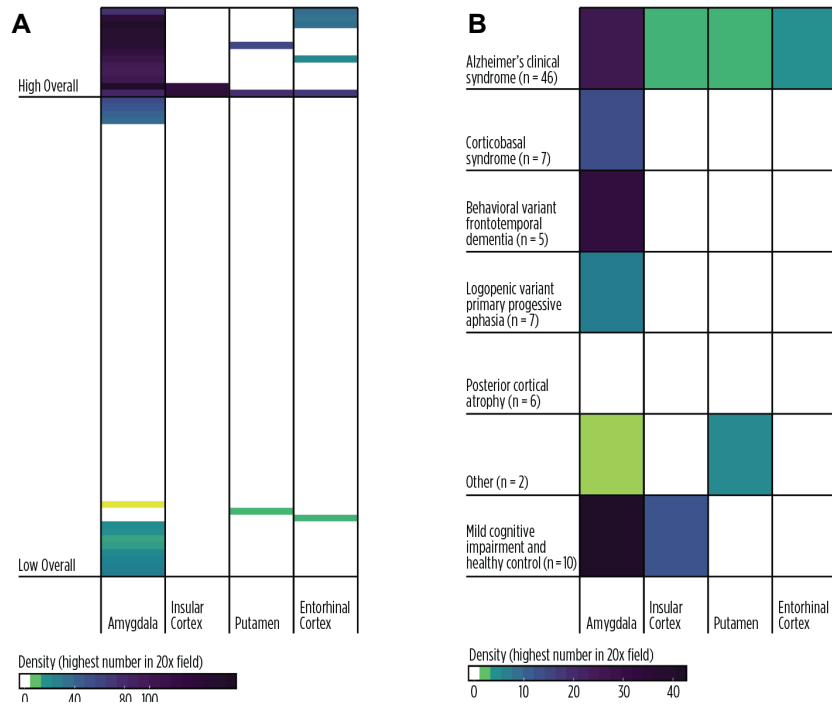
GM-GFA Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Low	77	35	61	71.22 (10.29)	9.14 (3.30)	15.52 (3.09)	45	6
High	6	0	83	87.17 (8.93)	10.25 (5.64)	16.22 (4.52)	44	6
<i>p-value</i>	—	0.189	0.516	0.002	0.194	0.740	1.000	0.246



Supplemental Figure 4. Subpial TSA Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of subpial TSA density and anatomic distribution by K-means algorithm. B) Mean density of subpial TSA pathology by anatomic region and clinical diagnosis.

Supplemental Table 4. Demographics by subpial TSA clustering. SD = standard deviation, NFT = neurofibrillary tangle

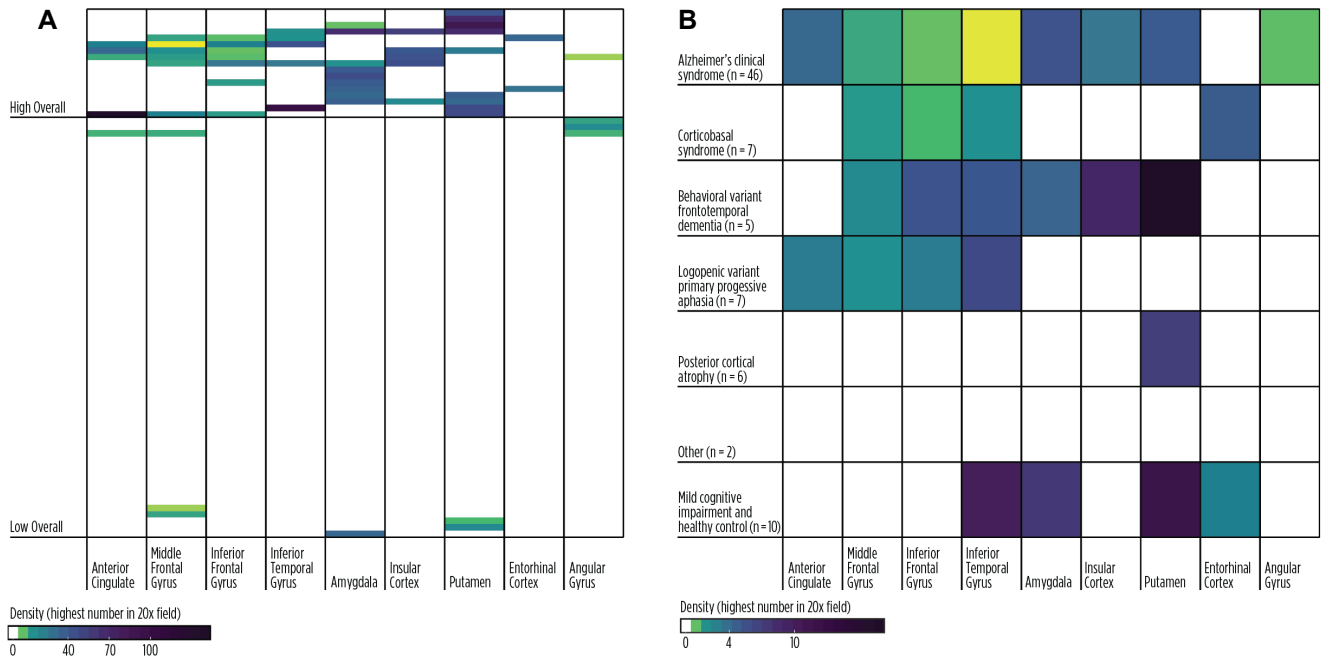
Subpial Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Amygdala-predominant	16	25	75	78 (7.38)	10.94 (5.25)	16.21 (4.98)	57	6
Low	59	36	54	69.78 (10.52)	9.12 (3.31)	15.67 (2.81)	48	6
High	8	25	100	80.25 (13.22)	8.5 (5.37)	14.71 (4.92)	0	6
<i>p-value</i>	—	0.647	0.022	0.002	0.120	0.896	0.022	0.575



Supplemental Figure 5. Subependymal TSA Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of subependymal TSA density and anatomic distribution by K-means algorithm. B) Mean density of subependymal TSA pathology by anatomic region and clinical diagnosis.

Supplemental Table 5. Demographics by subependymal TSA clustering. SD = standard deviation, NFT = neurofibrillary tangle, SubE = subependymal

SubE Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Low	70	36	59	70.41 (10.24)	9.51 (3.73)	15.55 (2.95)	48	6
High	13	15	85	82.92 (8.71)	8.85 (5.23)	16.6 (6.02)	25	6
<i>p-value</i>	—	0.265	0.141	0.0002	0.831	0.675	0.237	0.155



Supplemental Figure 6. Perivascular TSA Density Clustering and Distribution by Clinical Diagnosis. A) Clustering results of perivascularTSA density and anatomic distribution by K-means algorithm. B) Mean density of perivascular TSA pathology by anatomic region and clinical diagnosis.

Supplemental Table 6. Demographics by perivascular TSA clustering. SD = standard deviation, NFT = neurofibrillary tangle

Perivascular Cluster	Number	% Atypical	% Male	Mean Age of Death (SD)	Mean Disease Duration (SD)	Mean Years of Education (SD)	%APO-E4 carrier	Median Braak NFT stage
Low	66	33	56	70.33 (10.56)	9.45 (3.22)	15.45 (3.05)	43	6
High	17	29	88	80.29 (8.89)	9.24 (6.25)	16.67 (4.79)	50	6
<i>p-value</i>	—	0.986	0.030	0.0008	0.852	0.357	0.846	0.176