

Supplementary Table 1. Similar Global Brain Volumes in Infants with Monosomic TS and Typically Developing Controls (Sensitivity Analysis 1).

Brain Volume	LSMean (SE) TS	LSMean (SE) Control Female	LSMean (SE) Control Male	p_val ANCOVA
ICV	886401 (20862)	925854 (12402)	939946 (13665)	0.1299
GM	609033 (13433)	636329 (7986)	639759 (8799)	0.1853
WM	210907 (6860)	220524 (4078)	228265 (4494)	0.1064
CSF	66460 (2360)	69000 (1403)	71922 (1546)	0.1225

Supplementary Table 2. Similar Global Brain Volumes in Infants with TS and Typically Developing Controls (Sensitivity Analysis 2, Excluding Children with Mullen Scores < 70).

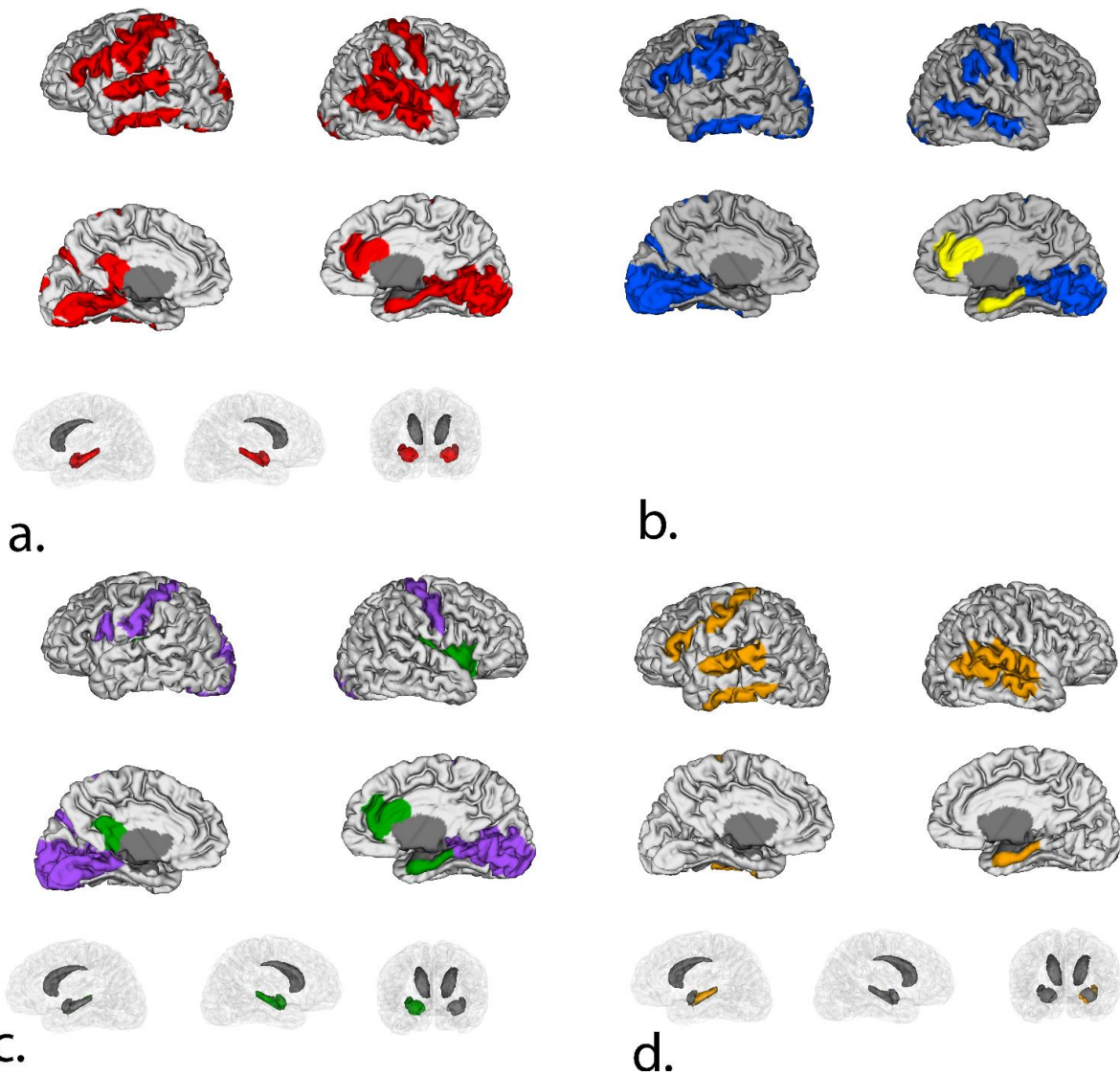
Brain Volume	LSMean (SE) TS	LSMean (SE) Control Female	LSMean (SE) Control Male	p_val ANCOVA
ICV	898817 (18454)	923562 (12069)	938455 (13206)	0.2451
GM	615467 (11811)	6350134 (7724)	639025 (8452)	0.3038
WM	215728 (6430)	219628 (4205)	227457 (4601)	0.2453
CSF	67623 (2106)	689201 (1377)	71973 (1507)	0.1515

Supplementary Table 3. Similar Global Brain Volumes in Infants with TS and Typically Developing Controls (Sensitivity Analysis 3, Excluding Premature Infants).

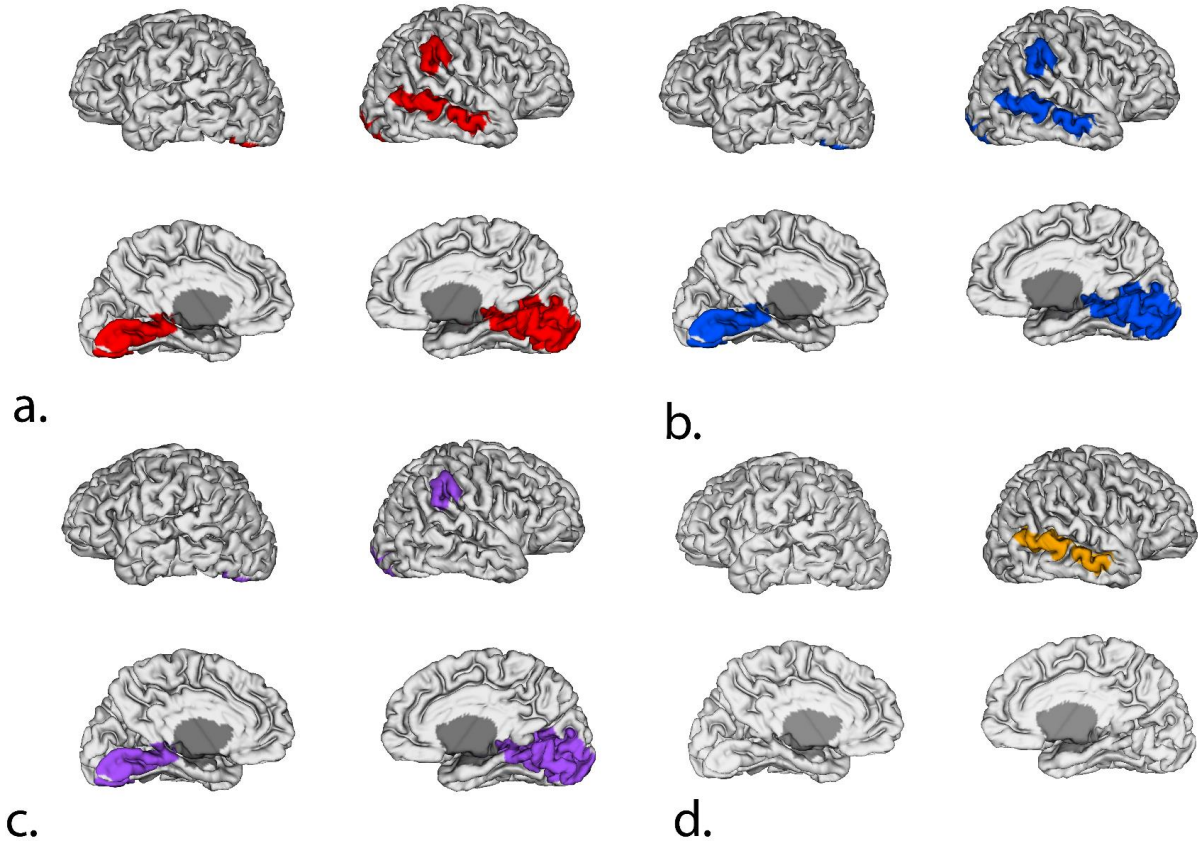
Brain Volume	LSMean (SE) TS	LSMean (SE) Control Female	LSMean (SE) Control Male	p_val ANCOVA
ICV	891775 (17610.89)	926509 (11534)	933998 (13469)	0.1824
GM	611421 (11485.27)	636535 (7522)	637347 (8784)	0.1777
WM	214491 (5919.63)	220857 (3877)	224920 (4527)	0.4063
CSF	65862 (2019.13)	69116 (1322)	71731 (1544)	0.0836

Supplementary Table 4. Similar Global Brain Volumes in Infants with TS and Typically Developing Controls (Sensitivity Analysis 4, Additional Covariates).

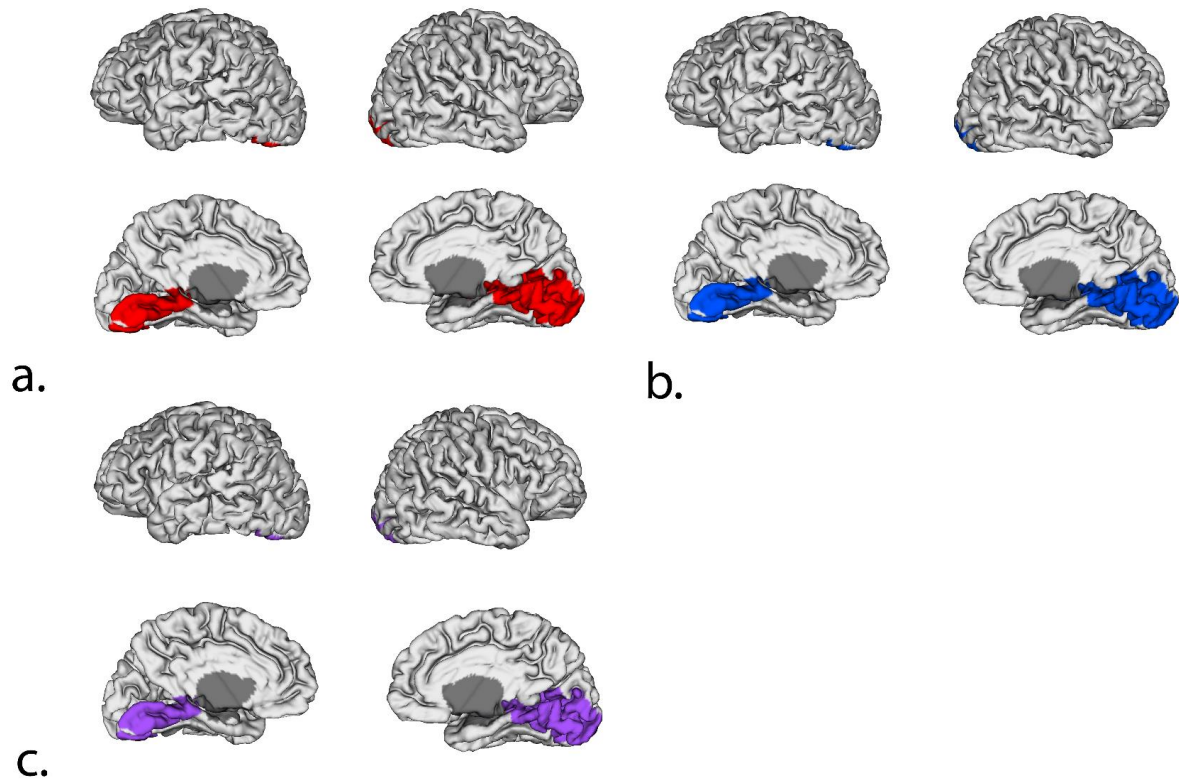
Brain Volume	LSMean (SE) TS	LSMean (SE) Control Female	LSMean (SE) Control Male	p_val ANCOVA
ICV	911908 (23897)	951096 (17297)	957891.9 (19339)	0.1215
GM	628387 (15187)	655542.7 (10993)	654786 (12290)	0.1392
WM	216781.5 (8431)	225765 (6103)	231057.7 (6823)	0.1958
CSF	66739 (2756)	69788 (1995)	72047.8 (2231)	0.1155



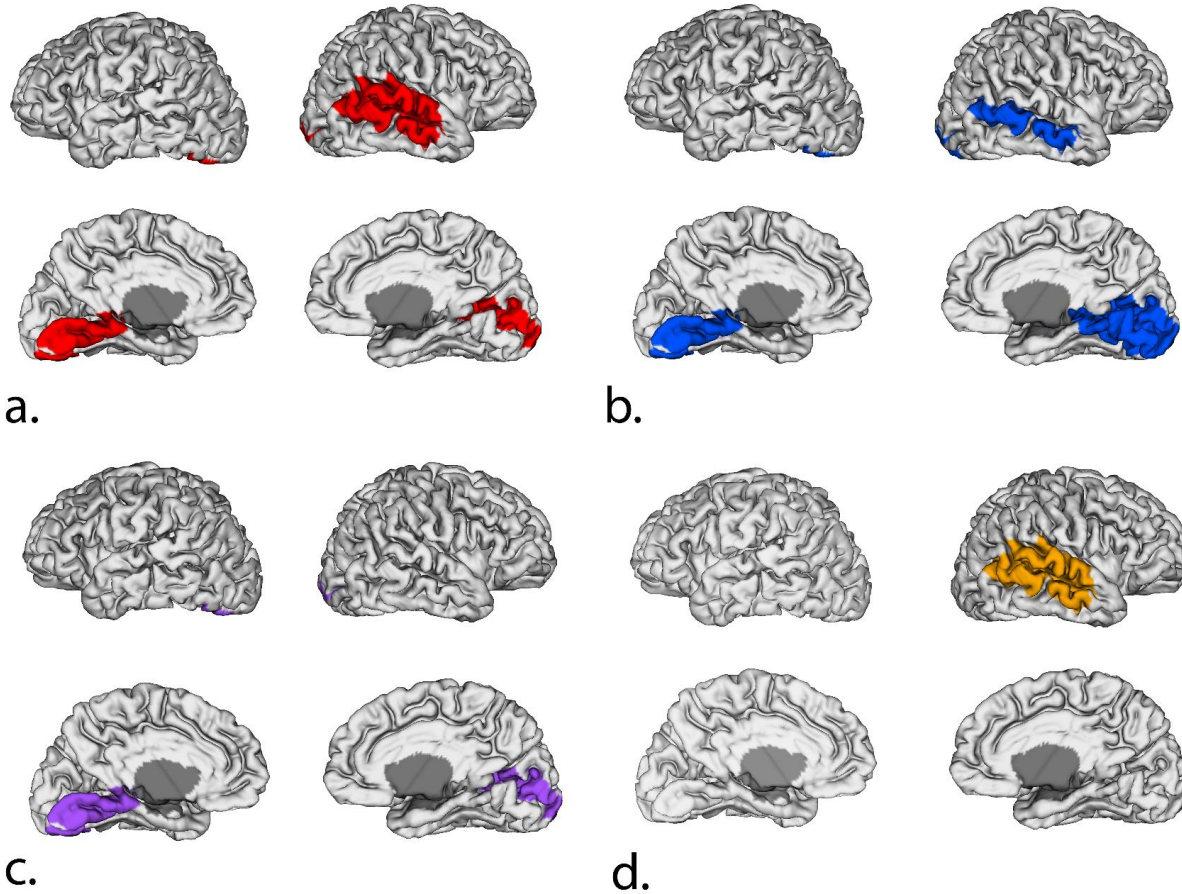
Supplementary Figure 1: Significant Differences in Regional GM Volumes between Infants with Monosomic TS and Typically Developing Controls (Sensitivity Analysis 1). Panel a. Results of 3 group ANCOVA on surface reconstruction; regions in red are significant after adjusted FDR correction. Panel b. Results of post-hoc t-tests (TS females versus typical females); blue indicates TS females have significantly smaller volumes than typical females; yellow indicates TS females have significantly larger volumes than typical females. Panel c. Results of post-hoc t-tests (TS females versus typical males); purple indicates TS females have significantly smaller volumes than typical males; green indicates TS females have significantly larger volumes than typical males. Panel d. Results of post-hoc t-tests (typical females versus typical males); orange indicates typical females have significantly larger volumes than typical males.



Supplementary Figure 2: Significant Differences in Regional GM Volumes between Infants with TS and Typically Developing Controls (Sensitivity Analysis 2, Excluding Children with Mullen Scores < 70). Panel a. Results of 3 group ANCOVA on surface reconstruction; regions in red are significant after adjusted FDR correction. Panel b. Results of post-hoc t-tests (TS females versus typical females); blue indicates TS females have significantly smaller volumes than typical females. Panel c. Results of post-hoc t-tests (TS females versus typical males); purple indicates TS females have significantly smaller volumes than typical males. Panel d. Results of post-hoc t-tests (typical females versus typical males); orange indicates typical females have significantly larger volumes than typical males.



Supplementary Figure 3: Significant Differences in Regional GM Volumes between Infants with TS and Typically Developing Controls (Sensitivity Analysis 3, Excluding Premature Infants). Panel a. Results of 3 group ANCOVA on surface reconstruction; regions in red are significant after adjusted FDR correction. Panel b. Results of post-hoc t-tests (TS females versus typical females); blue indicates TS females have significantly smaller volumes than typical females. Panel c. Results of post-hoc t-tests (TS females versus typical males); purple indicates TS females have significantly smaller volumes than typical males.



Supplementary Figure 4: Significant Differences in Regional GM Volumes between Infants with TS and Typically Developing Controls (Sensitivity Analysis 4, Additional Covariates).

Panel a. Results of 3 group ANCOVA on surface reconstruction; regions in red are significant after adjusted FDR correction. Panel b. Results of post-hoc t-tests (TS females versus typical females); blue indicates TS females have significantly smaller volumes than typical females. Panel c. Results of post-hoc t-tests (TS females versus typical males); purple indicates TS females have significantly smaller volumes than typical males. Panel d. Results of post-hoc t-tests (typical females versus typical males); orange indicates typical females have significantly larger volumes than typical males.