

## FOR ONLINE SUPPLEMENT

### Supplementary Table (1) and Supplementary Figures (3)

Supplementary Materials:

### Supplementary Table:

Supplementary Table (title): **Individual participant characteristics.**

	Age / gender	Diagnosis	Onset Age (y)	Remission Duration (mo)	Treatment / daily dose
1	29 M	MDD recurrent	19	11	Sertraline 200 mg
2	47 F	MDD recurrent	25	28	Escitalopram 10 mg
3	49 F	MDD recurrent	29	11	Paroxetine 37.5 mg
4	44 M	MDD recurrent	28	22	Escitalopram 10 mg
5	42 F	MDD recurrent	38	3	Escitalopram 10 mg
6	28 M	MDD recurrent	15	18	Escitalopram 15 mg
7	35 F	MDD recurrent	19	6	Sertraline 100 mg
8	24 M	MDD recurrent	10	7	Fluoxetine 80 mg
9	28 M	MDD recurrent	15	2	Citalopram 30 mg
10	21 F	MDD recurrent	16	2	Escitalopram 20 mg
11	48 F	MDD recurrent	32	2	Sertraline 50 mg
Mean	35.9 , F 55%		22.4	10.2	

Supplementary Table (caption): Participant demographic and clinical characteristics. MDD = major depressive disorder.

## Supplementary Figure Legends

Supplementary Figure 1.

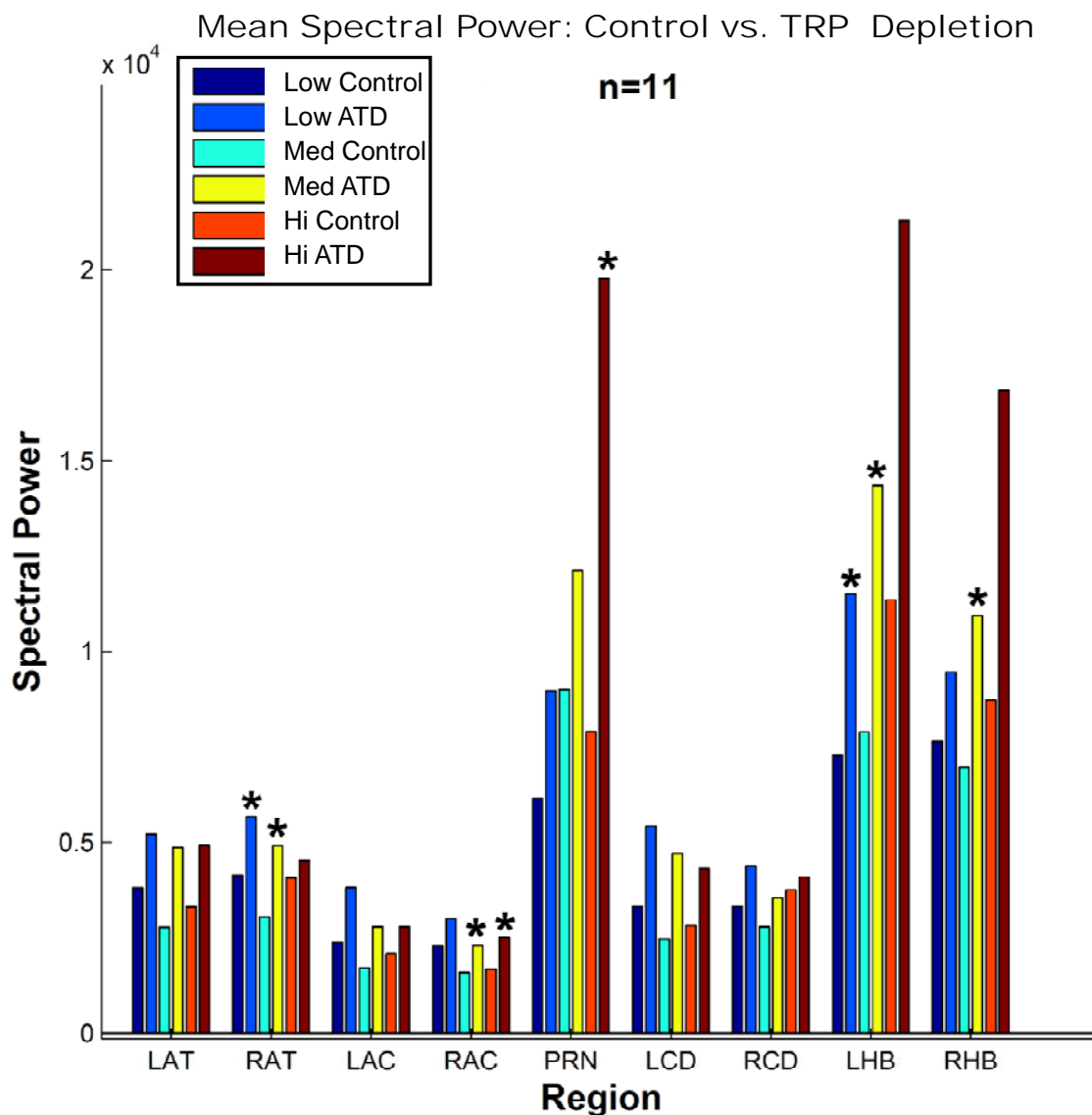
Spectral power for all regions and frequency bands. \* Significant ( $p < 0.05$ ) for ATD compared to control test, by Wilcoxon Signed Ranks ( $n = 11$ ). For PRN (pontine raphé nucleus),  $P = 0.004$  (significant with post correction alpha  $p < .0125$ ). LAT = left anterior thalamus; RAT = right anterior thalamus; LAC = left anterior cingulate; RAC = right anterior cingulate; PRN = pontine raphé nucleus; LCD = left caudate head; RCD = right caudate head; LHB = left habenula; RHB = right habenula.

Supplementary Figure 2.

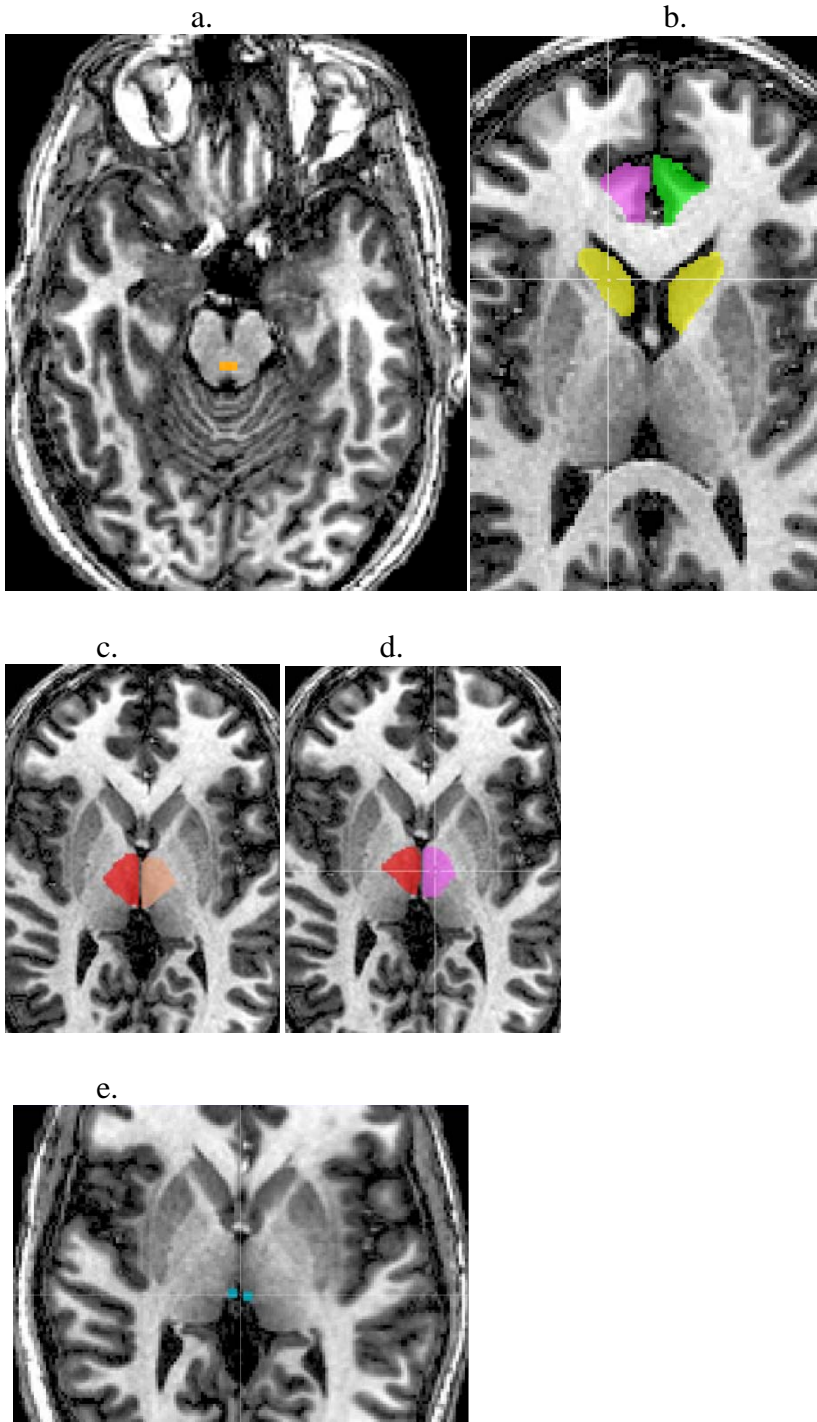
. Typical region of interest maps for (a) Pontine Raphé; (b) Caudate Head and Anterior Cingulate; (c) Anterior Thalamus (from one analyst); (d) Anterior Thalamus (from a second analyst); (e) Habenula.

Supplementary Figure 3.

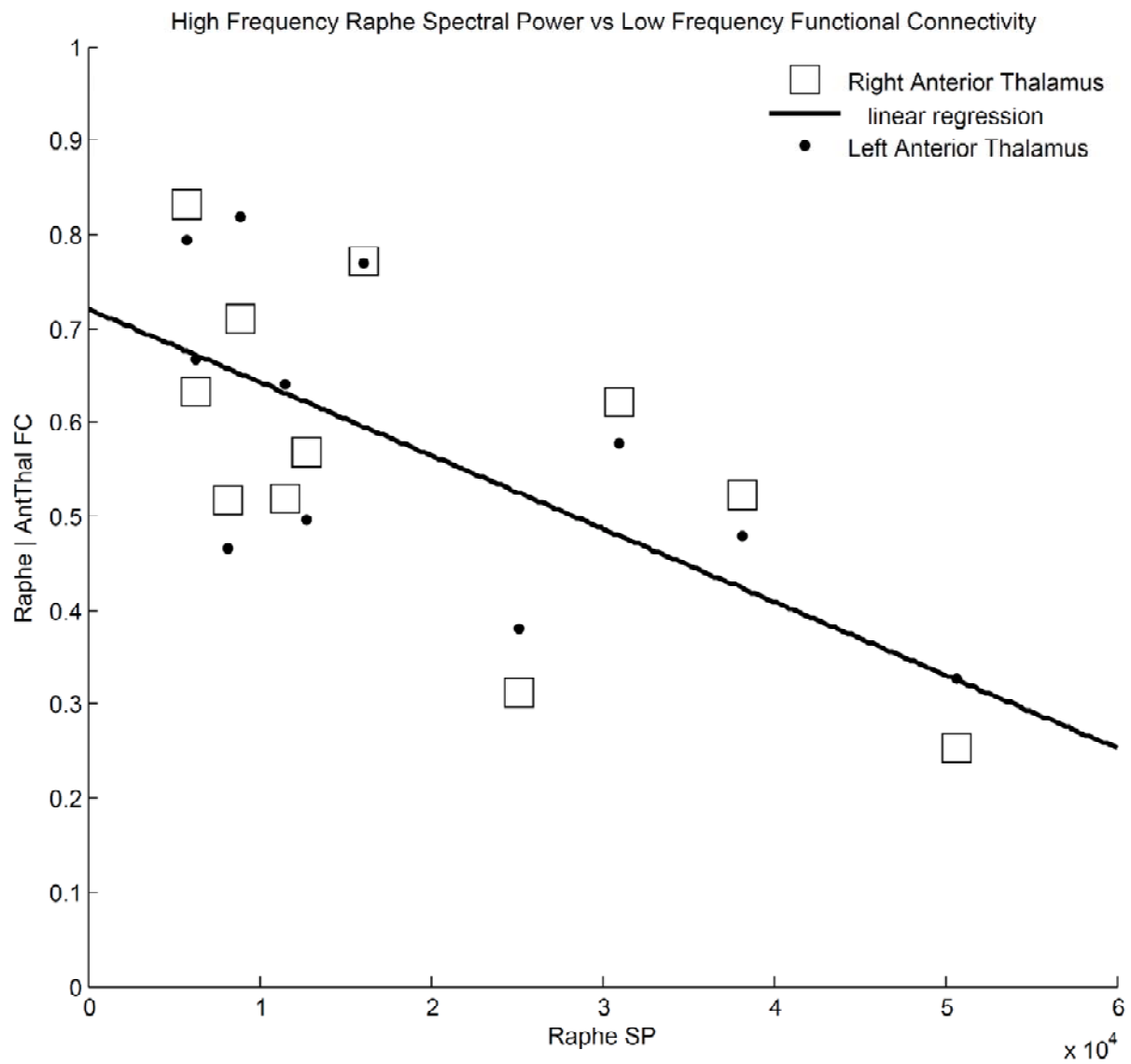
ATD condition correlation between spectral power and thalamo-raphé connectivity. Identical slopes for the right and left thalami are shown.  $r = 0.67$ .



Supplementary Figure 1. Spectral power for all regions and frequency bands. \* Significant ( $p < 0.05$ ) for ATD compared to control test, by Wilcoxon Signed Ranks ( $n = 11$ ). For PRN (raphé),  $P = 0.004$ . LAT = left anterior thalamus; RAT = right anterior thalamus; LAC = left anterior cingulate; RAC = right anterior cingulate; PRN = pontine raphé; LCD = left caudate head; RCD = right caudate head; LHB = left habenula; RHB = right habenula.



Supplementary Figure 2. Typical region of interest maps for (a) Pontine Raphé; (b) Caudate Head and Anterior Cingulate; (c) Anterior Thalamus (from one analyst); (d) Anterior Thalamus (from a second analyst); (e) Habenula.



Supplementary Figure 3. ATD condition correlation between spectral power and thalamo-raphé connectivity. Virtually identical slopes for the right and left thalami are shown,  $r = 0.67$ .