

**TABLE S1****Stimulation Parameters for the Patients at time of Final Assessment**

Patient No.	System	Wave Amplitude (V)	Pulse Width ( $\mu$ sec)	Frequency (Hz)
1	Activa	4.6	90	160
2	Soletra	4	60	160
3	Activa	4.2	120	130
4	Soletra	3.6	120	100
5	Soletra	3.3	90	160
6	Activa	5	120	160
7	Activa	5	90	160
8	Activa	4.6	90	130
9	Activa	4	90	160
10	Soletra	3.7	60	130
11	Soletra	3	60	160

**TABLE S2****Individual Patient Yale-Brown Obsessive Compulsive Scale (YBOCS), Hamilton Depression Rating Scale (HDRS), and Gilles de la Tourette Quality of Life Scale (GTS-QOL) Scores Before DBS and at Final Follow Up**

Patient No.	YBOCS Pre	YBOCS Post	HDRS Pre	HDRS Post	GAF Pre	GAF Post	GTS-QOL Pre	GTS-QOL Post
1	25	0	26	5	50	70	40	80
2	30	17	16	7	20	50	20	60
3	22	0	17	0	50	70	30	70
4	19	7	17	1	60	80	70	100
5	31	24	26	5	50	80	65	85
6	27	20	15	8	40	80	20	90
7	0	0	9	0	50	90	15	90
8	0	0	4	0	80	90	70	90
9	0	0	26	8	30	80	15	80
10	20	4	18	4	40	80	50	80
11	0	0	7	9	50	50	35	45

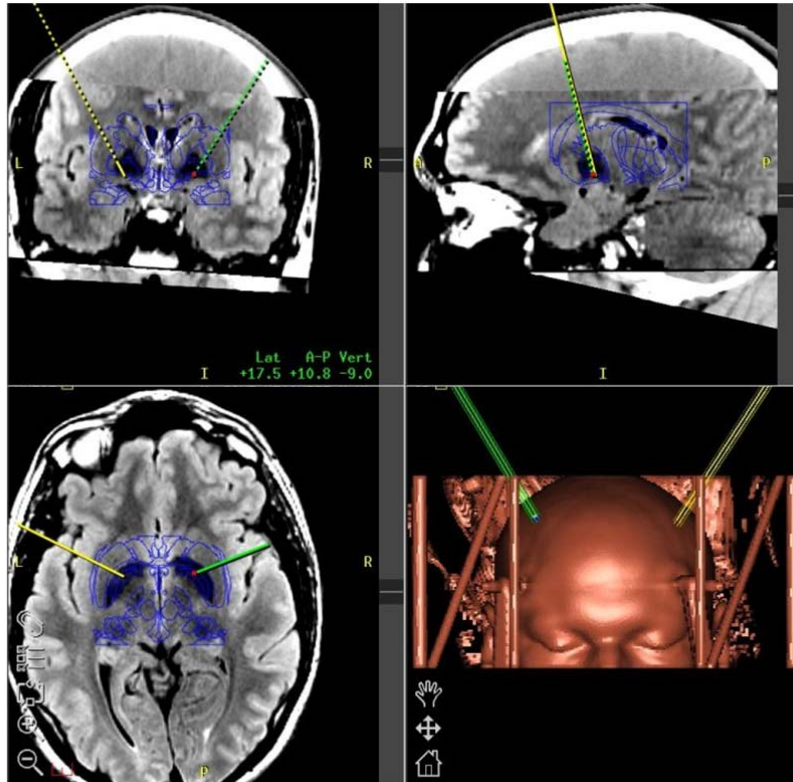
**TABLE S3****Individual Patient Total Yale Global Tic Severity Scale Scores Before DBS and at Final Follow-Up**

Patient No.	Final follow up (months)	M Pre	M Post	V pre	V post	TTSS	TTSS Post	TYGTSS Pre	TYGTSS Post
1	12	21	16	10	6	31	22	81	62
2	30	25	22	25	20	50	42	100	82
3	14	18	11	12	4	30	15	50	45
4	18	22	11	22	11	44	21	84	31
5	26	22	14	20	12	42	26	92	56
6	5	21	8	16	5	37	13	77	23
7	10	25	8	20	4	45	12	95	22
8	5	24	8	14	0	38	8	88	18
9	6	22	2	25	6	47	8	97	18
10	10	22	4	18	2	40	6	80	26
11	4	24	24	16	16	50	50	85	85

M = motor; V – vocal tics; TSS = M+V; TYGTSS = TSS+impairment

## FIGURE S1

Surgical Planning of Deep Brain Stimulation of The Antero-Medial Globus Pallidus Interna in a Patient With Tourette's Syndrome



1 mm CT slices are merged with 3T General Electric MRI T1 and FLAIR sequences and placed on a Medtronic Stealth surgical planning station.

## FIGURE S2

Localization of Electrodes in the Brain of a Patient With Tourette Syndrome for Deep Brain Stimulation of the Antero-Medial Globus Pallidus Interna

