

**Appendix 2 (as supplied by authors): DBS Studies**

<b>Study</b>	<b>Study Type</b>	<b>Number/Type of Patients</b>	<b>Control group</b>	<b>Outcome</b>
<b>Subcallosal Cingulate Gyrus</b>				
Holtzheimer et al. 2012 (1)	Prospective open label trial with sham lead-in phase	17 (10 MDD, 7 with bipolar II)	Single-blind, sham lead-in phase in all patients for 4 weeks after initial implantation. Second sham phase following 24 weeks of active stimulation; abandoned after 3 subjects due to significant deterioration in depressive symptoms after stimulation was discontinued	At one year follow-up, remission and response rate of 36%. At 2 years, remission rate of 58% and response rate of 92%. Remission and response rates based on Hamilton Depression Rating Scale (HDRS). Efficacy similar for MDD and bipolar patients
Lozano et al. 2012 (2)	Prospective open label trial	21 (MDD)	No control group	At 6 months follow-up, response rate of 48%; at one year follow-up, response rate of 29%. Response measured by HDRS
Mayberg et al. 2005 (3)	Case series	5 (MDD, one patient with bipolar II)	No control group	Follow-up 6 months. 4/6 responders, 2/6 remission as measured by HDRS
Kennedy et al. 2011 (4)	Case series	20 (MDD, one patients with bipolar II)	No control group	At last follow-up (3-6 years following implantation, mean=3.5), response rate=64.3% and remission rate=42.9% (by HDRS). Considerable improvement in social functioning: 65% of patients engaged in work-related activity at last follow-up compared to 10% prior to DBS
<b>Ventral caudate/Ventral Striatum</b>				
Malone et al. 2009 (5)	Case series	15 (MDD)	No control group	Follow-up from 6-51 months. 8/15 responders and 6/15 in remission at

Appendix to: Lipsman N, Sankar T, Downar J, et al. Neuromodulation for treatment-refractory major depressive disorder. *CMAJ* 2013. DOI:10.1503/cmaj.121317.

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				last follow-up measured by Montgomery-Asberg Depression Scale (MADRS)
<b>Nucleus Accumbens</b>				
Schlaepfer et al. 2008 (6)	Case series	3 (MDD)	No control group	Double-blind changes to stimulation parameters and assessment. HDRS scores decreased with stimulation and increased with stimulation off.
Bewernick et al. 2010 (7)	Case series	10 (MDD)	No control group	At 12 months, 5/10 had achieved >50% reduction in HDRS scores (i.e., responders). Antidepressant, antianhedonic, and antianxiety effects observed
<b>Inferior Thalamic Peduncle</b>				
Jimenez et al. 2005 (8)	Case report	1 (MDD with comorbid bulimia nervosa and borderline personality disorder)	No control group	Double-blind assessment protocol following initial period of 8 months with "on" stimulation. No relapse of depressive symptoms with DBS turned off for 12 months. Sustained remission at 24 months with DBS on.

## References

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