

# Four Deep Brain Stimulation Targets for Obsessive-Compulsive Disorder: Are They Different?

## Supplement

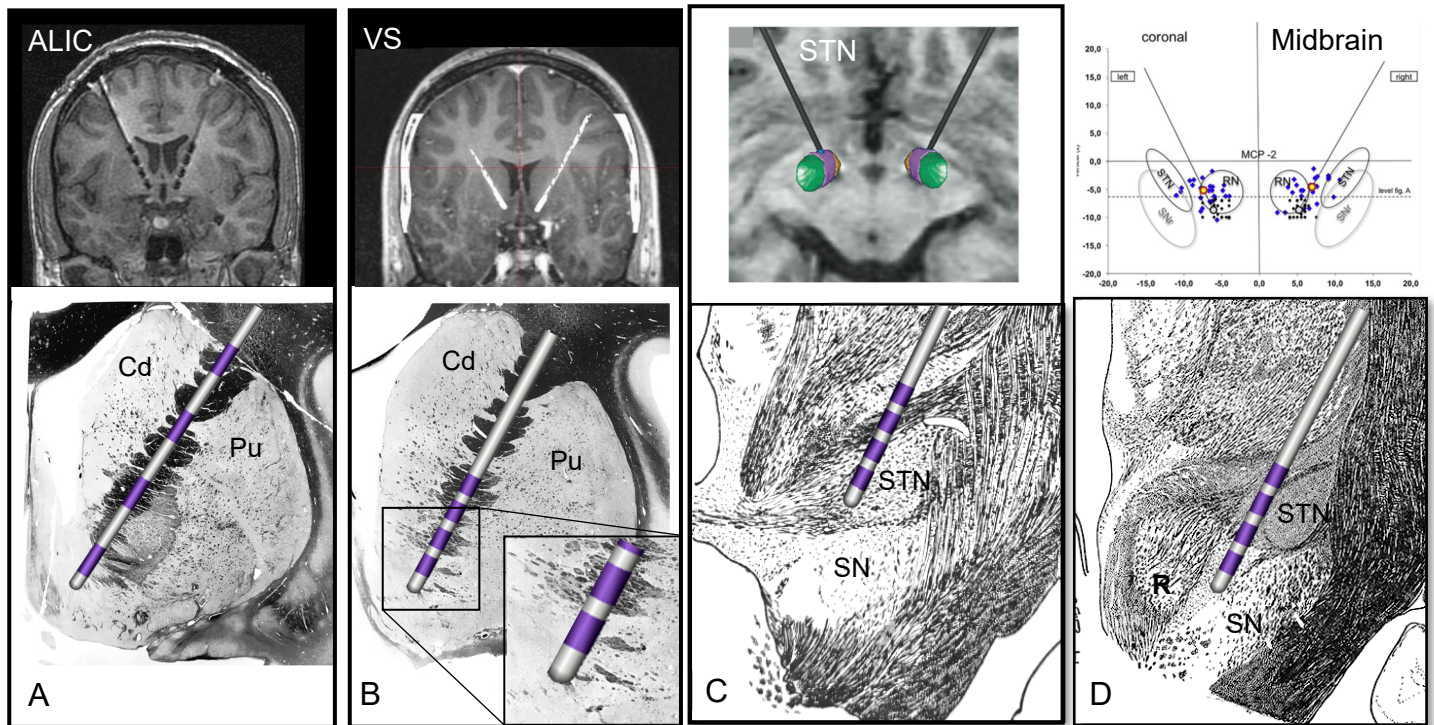


Figure S1. The four main DBS sites. Top panel: A. anterior limb of the internal capsule (1), B. ventral striatum (2), C. subthalamic nucleus (3), D. midbrain (4). Lower panel: electrodes superimposed on atlases depicting myelinated fibers, demonstrating the complex relationship between the specific targets and the surrounding myelinated tracts; A & B. myelin-stained sections (5), inset in B demonstrates the electrode in relationship to the fascicles embedded in the VS. C & D. myelin drawings (6).

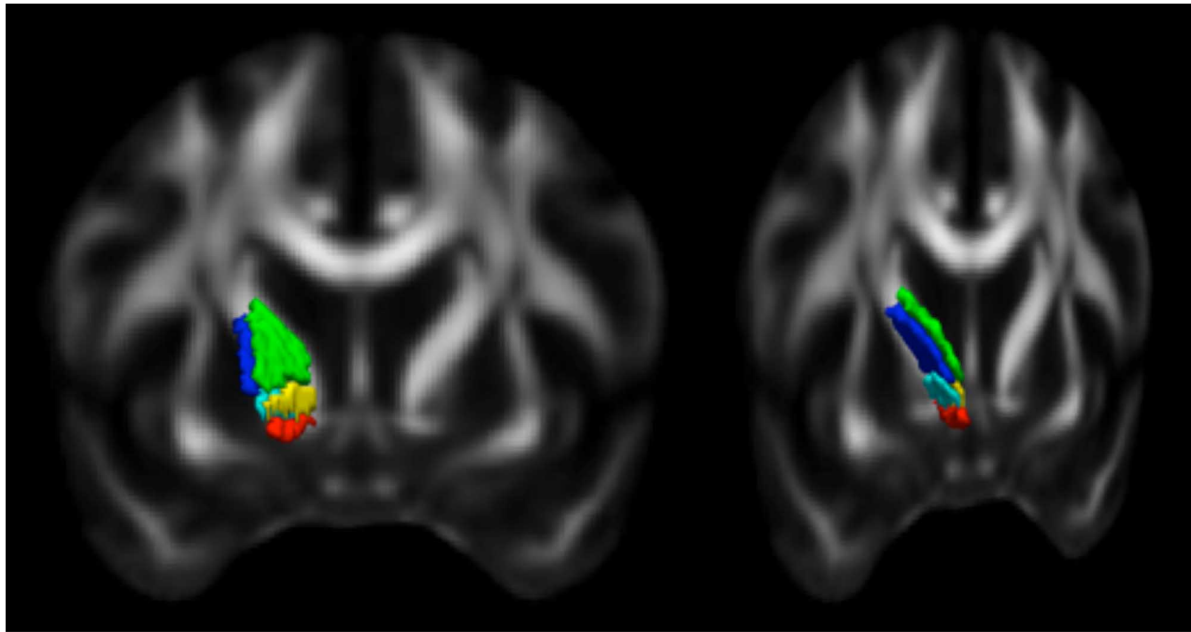


Figure S2. Segmentation of the ALIC in the human brain. The five segments carry fibers from different areas of cortex (coronal view): vmPFC/OFC=red, dACC=yellow, dmPFC=green, vIPFC=teal, dIPFC=blue. Republished from Safadi et al. (7).

#### Supplemental References

1. Greenberg BD, Rauch SL, Haber SN (2010): Invasive circuitry-based neurotherapeutics: stereotactic ablation and deep brain stimulation for OCD. *Neuropsychopharmacology*. 35:317-336.
2. Denys D, Mantione M (2009): Deep brain stimulation in obsessive-compulsive disorder. *Prog Brain Res*. 175:419-427.
3. Mallet L, Polosan M, Jaafari N, Baup N, Welter ML, Fontaine D, et al. (2008): Subthalamic nucleus stimulation in severe obsessive-compulsive disorder. *N Engl J Med*. 359:2121-2134.
4. Coenen VA, Sajonz B, Reisert M, Bostroem J, Bewernick B, Urbach H, et al. (2018): Tractography-assisted deep brain stimulation of the superolateral branch of the medial forebrain bundle (sLMFB DBS) in major depression. *Neuroimage Clin*. 20:580-593.
5. Mai J, Paxinos G, Voss T (2008): *Atlas of the Human Brain*. Elsevier.
6. Krieg W (1973): *Architectonics of the human cerebral fiber systems*. Evanston, IL: Brain Books.
7. Safadi Z, Grisot G, Jbabdi S, Behrens TE, Heilbronner SR, McLaughlin NCR, et al. (2018): Functional Segmentation of the Anterior Limb of the Internal Capsule: Linking White Matter Abnormalities to Specific Connections. *J Neurosci*. 38:2106-2117.