September 2017 News **PLEASE FORWARD TO YOUR COLLEAGUES** **www.wikistim.org**

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WIKISTIM MEMEBERSHIP CONTINUES TO GROW
Please continue to spread the word about WIKISTIM by sharing this email with your colleagues.

SEPTEMBER 2017 STATUS

- 572 subscribers
- DBS citations 3882
- DRG citations 58
- GES citations 481
- PNS citations 49
- SCS citations 2075
- SNS citations 853

IMPROVED PERFORMANCE ON SMALL SCREENS
This week, we will be testing a version of WIKISTIM with improved appearance and functionality on small screens. This is an important update that will make WIKISTIM more useful.

ACCOMPLISHMENTS IN THE PAST MONTH
During the last weeks of August, we "scrubbed" the entire database, updating "epubs" with complete citations, removing duplicates, and fixing display problems. We also removed abstracts (especially in the GES section) for studies that have been reported in full publications.

This month, we also added DBS citations for PTSD, eating disorders, and substance abuse. As is our custom, this newsletter lists only those published in 2017, but the additions to the database include everything we find that reports primary data. Finally, we uploaded the rest of the completed datasheets sent from Rose Azalde of Nevro. We thank Ms. Azalde and all of the others who have completed datasheets.

We continue to plan and develop improvements to the wiki-abstraction data entry process.

LONGER-TERM GOALS

- Continue building the PNS section.
- Build the non-invasive brain stimulation section.

- Add additional sections (e.g., VNS).

DONATIONS

Please visit the **DONATE** link on the WIKISTIM homepage for information on tax-deductible donations! Our goal is to keep WIKISTIM available free of charge. And please consider including Wikistim's parent non-profit, charitable corporation, The Neuromodulation Foundation, Inc., in your estate planning as Dr. Richard North has done.

FINANCIAL SUPPORT TO DATE

- Boston Scientific
- B. Todd Sitzman, MD, MPH
- Greatbatch
- Medtronic
- NEVRO
- Richard B. North, MD
- St Jude
- The NANS Foundation, now the Institute of Neuromodulation
- Thomas Abell, MD

In-kind support:

- The International Neuromodulation Society (publicity and conference registration)
- The Neuromodulation Foundation (parent non-profit: overhead and development)
- The North American Neuromodulation Society (publicity and conference registration)

CITATIONS OF NEW PAPERS THAT REPORT PRIMARY DATA ADDED SEPTEMBER 2017

DBS (the WIKISTIM database is as comprehensive as we can make it for all approved and emerging indications)

1. Abboud H, Genc G, Thompson NR, Oravivattanakul S, Alsallom F, Reyes D, Wilson K, Cerejo R, Yu XX, Floden D, Ahmed A, Gostkowski M, Ezzeldin A, Marouf H, Mansour OY, Machado A, Fernandez HH. Predictors of functional and quality of life outcomes following deep brain stimulation surgery in Parkinson's disease patients: disease, patient, and surgical factors. Parkinsons Dis 2017 2017:5609163 https://www.ncbi.nlm.nih.gov/pubmed/28852579
2. Alho ATDL, Hamani C, Alho EJL, da Silva RE, Santos GAB, Neves RC, Carreira LL, Araújo CMM, Magalhães G, Coelho DB, Alegro MC, Martin MGM, Grinberg LT, Pasqualucci CA, Heinsen H, Fonoff ET, Amaro E Jr. Magnetic resonance diffusion tensor imaging for the pedunculopontine nucleus: proof of concept and histological correlation. Brain Struct Funct 2017 222(6):2547-2558 https://www.ncbi.nlm.nih.gov/pubmed/28283747
3. Angeles P, Tai Y, Pavese N, Wilson S, Vaidyanathan R. Automated assessment of symptom severity changes during deep brain stimulation (DBS) therapy for Parkinson's disease. IEEE Int Conf Rehabil Robot 2017 2017:1512-1517 https://www.ncbi.nlm.nih.gov/pubmed/28814034
4. Batra V, Tran TL, Caputo J, Guerin GF, Goeders NE, Wilden J. Intermittent bilateral deep brain stimulation of the nucleus accumbens shell reduces intravenous methamphetamine intake and seeking in Wistar rats. J Neurosurg 2017 126(4):1339-1350 https://www.ncbi.nlm.nih.gov/pubmed/27392268
5. Bezchlibnyk YB, Stone SS, Hamani C, Lozano AM. High frequency stimulation of the infralimbic cortex induces morphological changes in rat hippocampal neurons. Brain Stimul 10(2):315-323 https://www.ncbi.nlm.nih.gov/pubmed/27964870
6. Cano M, Alonso P, Martínez-Zalacaín I, Subirà M, Real E, Segalàs C, Pujol J, Cardoner N, Menchón

JM, Soriano-Mas C. Altered functional connectivity of the subthalamus and the bed nucleus of the stria terminalis in obsessive-compulsive disorder. Psychol Med 2017 epub 1-10 https://www.ncbi.nlm.nih.gov/pubmed/28826410
7. Chang CH, Chen SY, Tsai ST, Tsai HC. Compulsive skin-picking behavior after deep brain stimulation in a patient with refractory obsessive-compulsive disorder: a case report. Medicine (Baltimore) 2017 96(36):e8012 https://www.ncbi.nlm.nih.gov/pubmed/28885367
8. Chowdhury T, Wilkinson M, Cappellani RB. Hemodynamic perturbations in deep brain stimulation surgery: first detailed description. Front Neurosci 2017 epub 11:477 https://www.ncbi.nlm.nih.gov/pubmed/28894414
9. Coizet V, Heilbronner SR, Carcenac C, Mailly P, Lehman JF, Savasta M, David O, Deniau JM, Groenewegen HJ, Haber SN. Organization of the anterior limb of the internal capsule in the rat. J Neurosci 2017 37(10):2539-2554 https://www.ncbi.nlm.nih.gov/pubmed/28159909
10. Daneshzand M, Faezipour M, Barkana BD. Computational stimulation of the basal ganglia neurons with cost effective delayed Gaussian waveforms. Front Comput Neurosci 2017 epub 11:73 https://www.ncbi.nlm.nih.gov/pubmed/28848417
11. Dembek TA, Reker P, Visser-Vandewalle V, Wirths J, Treuer H, Klehr M, Roediger J, Dafsari HS, Barbe MT, Timmermann L. Directional DBS increases side-effect thresholds—a prospective, double-blind trial. Mov Disord 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28843009
12. Ding CY, Yu LH, Lin YX, Chen F, Wang WX, Lin ZY, Kang DZ. A novel stereotaxic system for implanting a curved lead to two intracranial targets with high accuracy. J Neurosci Methods 2017 291:190-197 https://www.ncbi.nlm.nih.gov/pubmed/28834693
13. Enrici I, Mitkova A, Castelli L, Lanotte M, Lopiano L, Adenzato M. Deep brain stimulation of the subthalamic nucleus does not negatively affect social cognitive abilities of patients with Parkinson's disease. Sci Rep 2017 7(1):9413 https://www.ncbi.nlm.nih.gov/pubmed/28842656
14. Escobar D, Johnson LA, Nebeck SD, Zhang J, Johnson MD, Baker KB, Molnar GF, Vitek JL. Parkinsonism and vigilance: alteration in neural oscillatory activity and phase-amplitude coupling in the basal ganglia and motor cortex. J Neurophysiol 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28835526
15. Hadar R, Bikovski L, Soto-Montenegro ML, Schimke J, Maier P, Ewing S, Voget M, Wieske F, Götz T, Desco M, Hamani C, Pascau J, Weiner I, Winter C. Early neuromodulation prevents the development of brain and behavioral abnormalities in a rodent model of schizophrenia. Mol Psychiatry 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28373685
16. Holewijn RA, Verbaan D, de Bie RMA, Schuurman PR. General anesthesia versus local anesthesia in StereotaXY (GALAXY) for Parkinson's disease: study protocol for a randomized controlled trial. Trials 2017 18(1):417 https://www.ncbi.nlm.nih.gov/pubmed/28882161
17. Hooi LL, Fitzrol DN, Rajapathy SK, Chin TY, Halim SA, Kandasamy R, Hassan WMNW, Idris B, Ghani ARI, Idris Z, Tharakan J, Nunta-Aree S, Abdullah JM. Deep brain stimulation (DBS) for movement disorders: an experience in Hospital Universiti Sains Malaysia (HUSM) involving 12 patients. Malays J Med Sci 2017 24(2):87-93 https://www.ncbi.nlm.nih.gov/pubmed/28894408
18. Jamora RDG, Miyasaki JM. Treatment gaps in Parkinson's disease care in the Philippines. Neurodegener Dis Manag 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28853633
19. Kim R, Kim HJ, Kim A, Kim Y, Kim AR, Shin CW, Paek SH, Jeon B. Depression may negatively affect the change in freezing of gait following subthalamic nucleus stimulation in Parkinson's disease. Parkinsonism Relat Disord 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28830666
20. Klingelhoefer L, Hulse N, Chaudhuri KR, Ashkan K, Samuel M. Automated night-time deep brain stimulation battery checks can induce symptoms: identification and management of a new hardware complication. Letter. Brain Stimul 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28803833
21. Knoop CD, Kadish R, Hager K, Park MC, Loprinzi PD, LaFaver K. Bridging the gaps in patient

education for DBS surgery in Parkinson's disease. Parkinsons Dis 2017 2017:9360354 https://www.ncbi.nlm.nih.gov/pubmed/28848685
22. Lipsman N, Lam E, Volpini M, Sutandar K, Twose R, Giacobbe P, Sodums DJ, Smith GS, Woodside DB, Lozano AM. Deep brain stimulation of the subcallosal cingulate for treatment-refractory anorexia nervosa: 1 year follow-up of an open-label trial. Lancet Psychiatry 2017 4(4):285-294 https://www.ncbi.nlm.nih.gov/pubmed/28238701
23. Liu X, Zhang J, Fu K, Gong R, Chen J, Zhang J. Microelectrode recording guided versus intraoperative MRI guided in STN deep brain stimulation surgery for Parkinson's disease: a one-year follow-up study. World Neurosurg 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28842228
24. Mano T. Reversal of dropped head syndrome after the cessation of dopaminergic agonist treatment in Parkinson disease. Clin Neuropharmacol 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28816836
25. Martin AJ, Starr PA, Ostrem JL, Larson PS. Hemorrhage detection and incidence during magnetic resonance-guided deep brain stimulator implantations. Stereotact Funct Neurosurg 2017 95(5):307-314 https://www.ncbi.nlm.nih.gov/pubmed/28889128
26. McClelland S 3rd, Jaboin JJ. Treatment of the ventral intermediate nucleus for medically refractory tremor: a cost-analysis of stereotactic radiosurgery versus deep brain stimulation. Radiother Oncol 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28818305
27. Morishita T, Hilliard JD, Okun MS, Neal D, Nestor KA, Peace D, Hozouri AA, Davidson MR, Bova FJ, Sporrer JM, Oyama G, Foote KD. Postoperative lead migration in deep brain stimulation surgery: incidence, risk factors, and clinical impact. PLOS One 2017 12(9):e0183711 https://www.ncbi.nlm.nih.gov/pubmed/28902876
28. Prinz P, Kobelt P, Scharner S, Goebel-Stengel M, Harnack D, Faust K, Winter Y, Rose M, Stengel A. Deep brain stimulation alters light phase food intake microstructure in rats. J Physiol Pharmacol 2017 68(3):345-354 https://www.ncbi.nlm.nih.gov/pubmed/28820391
29. Reznikov R, Bambico F, Diwan M, Raymond RJ, Nashed MG, Nobrega JN, Hamani C. Prefrontal cortex deep brain stimulation improves fear and anxiety-like behaviour and reduces basolateral amygdala activity in a preclinical model of post-traumatic stress disorder. Neuropsychopharmacology 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28862251
30. Rossi PJ, De Jesus S, Hess CW, Martinez-Ramirez D, Foote KD, Gunduz A, Okun MS. Measures of impulsivity in Parkinson's disease decrease after DBS in the setting of stable dopamine therapy. Parkinsonism Relat Disord 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28827010
31. Rossi PJ, Shute JB, Opri E, Molina R, Peden C, Castellanos O, Foote KD, Gunduz A, Okun MS. Impulsivity in Parkinson's disease is associated with altered subthalamic but not globus pallidus internus activity. J Neurol Neurosurg Psychiatry 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28822983
32. Saenger VM, Kahan J, Foltynie T, Friston K, Aziz TZ, Green AL, van Hartevelt TJ, Cabral J, Stevner ABA, Fernandes HM, Mancini L, Thornton J, Yousry T, Limousin P, Zrinzo L, Hariz M, Marques P, Sousa N, Kringelbach ML, Deco G. Uncovering the underlying mechanisms and whole-brain dynamics of deep brain stimulation for Parkinson's disease. Sci Rep 2017 7(1):9882 https://www.ncbi.nlm.nih.gov/pubmed/28851996
33. Sani S, Busnello J, Kochanski R, Cohen Y, Gibbons RD. High-frequency measurement of depressive severity in a patient treated for severe treatment-resistant depression with deep-brain stimulation. Transl Psychiatry 2017 7(8):e1207 https://www.ncbi.nlm.nih.gov/pubmed/28809861
34. Shah VV, Goyal S, Palanthandalam-Madapusi HJ. A possible explanation of how high-frequency deep brain stimulation suppresses low-frequency tremors in Parkinson's disease. IEEE Trans Neural Syst Rehabil Eng 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28866595
35. Syrkin-Nikolau J, Koop MM, Prieto T, Anidi C, Afzal MF, Velisar A, Blumenfeld Z, Martin T, Trager

M, Bronte-Stewart H. Subthalamic neural entropy is a feature of freezing of gait in freely moving people with Parkinson's disease. Neurobiol Dis 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28890315
36. Thompson JA, Tekriwal A, Felsen G, Ozturk M, Telkes I, Wu J, Ince NF, Abosch A. Sleep patterns in Parkinson's disease: direct recordings from the subthalamic nucleus. J Neurol Neurosurg Psychiatry 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28866626
37. Velarde OM, Mato G, Dellavale D. Mechanisms for pattern specificity of deep-brain stimulation in Parkinson's disease. PLOS One 2017 12(8):e0182884 https://www.ncbi.nlm.nih.gov/pubmed/28813460
38. Wolf ME, Abdallat M, Blahak C, Krauss JK. Pathological crying induced by deep brain stimulation of the subthalamic nucleus in Parkinson's disease. J Clin Neurosci 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28887071
39. Wu X, Qiu Y, Simfukwe K, Wang J, Chen J, Hu X. Programming for stimulation-induced transient nonmotor psychiatric symptoms after bilateral subthalamic nucleus deep brain stimulation for Parkinson's disease. Parkinsons Dis 2017 2017:2615619 epub https://www.ncbi.nlm.nih.gov/pubmed/28894620
40. Zhou Q, Dong J, Xu T, Cai X. Synaptic potentiation mediated by L-type voltage-dependent calcium channels mediates the antidepressive effects of lateral habenula stimulation. Neuroscience 2017 362:25-32 https://www.ncbi.nlm.nih.gov/pubmed/28844005

DRG (updating our comprehensive list)

1. Pan B, Zhang Z, Chao D, Hogan QH. Dorsal root ganglion field stimulation prevents inflammation and joint damage in a rat model of rheumatoid arthritis. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28872725
2. van Velsen V, van Helmond N, Chapman KB. Creating a strain relief loop during S1 transforaminal lead placement for dorsal root ganglion stimulation for foot pain: a technical note. Pain Pract 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28862789
3. van Velsen V, van Helmond N, Levine ME, Chapman KB. Single-incision approach to implantation of the pulse generator and leads for dorsal root ganglion stimulation: a case report. A A Case Rep 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28816708
4. Vancamp T, Levy RM, Peña I, Pajuelo A. Relevant anatomy, morphology, and implantation techniques of the dorsal root ganglia at the lumbar levels. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28895256

GES (nothing new to report this month)

SCS (updating our comprehensive list)

1. Bai Y, Xia X, Liang Z, Wang Y, Yang Y, He J, Li X. Corrigendum: frontal connectivity in EEG gamma (30-45 Hz) respond to spinal cord stimulation in minimally conscious state patients. Front Cell Neurosci 2017 epub 11:251 https://www.ncbi.nlm.nih.gov/pubmed/28828002
2. Dupré DA, Tomycz N, Whiting D, Oh M. Spinal cord stimulator explantation: motives for removal of surgically placed paddle systems. Pain Pract 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28875558
3. Maldonado-Naranjo AL, Frizon LA, Sabharwal NC, Xiao R, Hogue O, Lobel DA, Machado AG, Nagel SJ. Rate of complications following spinal cord stimulation paddle electrode removal. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28833931
4. Patel YA, Kim BS, Butera RJ. Kilohertz electrical stimulation nerve conduction block: effects of electrode material. IEEE Trans Neural Syst Rehabil Eng 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28809704

5. Reck TA, Landmann G. Successful spinal cord stimulation for neuropathic below-level spinal cord injury pain following complete paraplegia: a case report. Spinal Cord Ser Cases 2017 3:17049 https://www.ncbi.nlm.nih.gov/pubmed/28808583
6. Su X, Simenson HA, Dinsmoor DA, Orser HD. Evaluation of pulse-width of spinal nerve stimulation in a rat model of bladder micturition reflex. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28885782
7. Van Buyten JP, Wille F, Smet I, Wensing C, Breel J, Karst E, Devos M, Pöggel-Krämer K, Vesper J. Therapy-related explants after spinal cord stimulation: results of an international retrospective chart review study. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28834092
8. Zareen N, Shinozaki M, Ryan D, Alexander H, Amer A, Truong DQ, Khadka N, Sarkar A, Naeem S, Bikson M, Martin JH. Motor cortex and spinal cord neuromodulation promote corticospinal tract axonal outgrowth and motor recovery after cervical contusion spinal cord injury. Exp Neurol 2017 297:179-189 https://www.ncbi.nlm.nih.gov/pubmed/28803750

SNS (updating our comprehensive list)

1. Ghiselli R, Lucarini G, Orlando F, Ortenzi M, Cardinali L, Provinciali M, Di Primio R, Guerrieri M. Increase of n-NOS and i-NOS in rat colon after sacral neuromodulation. Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28837238
2. Jairam R, Marcelissen T, van Koeveringe G, van Kerrebroeck P. Optimal lead positioning in sacral neuromodulation: which factors are related to treatment outcome? Neuromodulation 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28877395
3. Muñoz-Duyos A, Lagares-Tena L, Delgado-Rivilla S. Treatment of chronic anal fissure with sacral neuromodulation: a pilot study. Tech Coloproctol 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28891011
4. Okhunov Z, Farhan B, Ahmed A, Pulford C, Ghoniem G. Surgical technique for removal of tined lead for InterStim. Can J Urol 2017 24(4):8918-8920 https://www.ncbi.nlm.nih.gov/pubmed/28832311
5. van der Wilt AA, Groenewoud HHM, Benninga MA, Dirksen CD, Baeten CGMI, Bouvy ND, Melenhorst J, Breukink SO. Cost-effectiveness of sacral neuromodulation for chronic refractory constipation in children and adolescents: a Markov model analysis. Colorectal Dis 2017 epub https://www.ncbi.nlm.nih.gov/pubmed/28834055

Richard Weiner, MD, Peripheral Nerve Stimulation
Jonathan Young, MD, Noninvasive Brain Stimulation
To be determined, Vagus Nerve Stimulation

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Disclosure
WIKISTIM includes citations for indications that are or might be considered off-label in the United States.

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