



February 2016 News

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PLEASE CHECK OUT THE APPENDIX FOR A LIST OF CITATIONS ADDED TO WIKISTIM IN JANUARY!

If you are reading this newsletter for the first time, please visit the [ABOUT](#) section on the [WIKISTIM home page](#). This section describes WIKISTIM's unique resources and is accessible without registration.

NEW FEATURE

In our effort to increase the depth of the content on WIKISTIM, we have begun to add data that we collected from SCS reports for evidence tables created before WIKISTIM datasheets were available. These tables were not as comprehensive as the WIKISTIM datasheets but nevertheless provide valuable information that we can present without waiting until we have the time to hyper-abstract the articles in question completely. To see which datasheets are partially completed, click on "Status" on the right-hand side of the heading of the list of [SCS searchable papers](#). "Partial" will appear, followed by "Completed."

INVITED TALKS

Medical Device Innovation Consortium

On January 8th, we were invited to present WIKISTIM to the [MDIC Neurostimulation Group](#) meeting at the FDA. One of the questions we fielded was about copyrights and plagiarism. We pointed out that the data we include in our datasheets from published reports are the same types of data that have long been published in evidence tables in review articles. We are careful to indicate direct quotes appropriately, and by its nature, all of our work is properly cited. All of this falls within permitted educational use of published information.

North American Neuromodulation Society and Neural Interfaces Conference Joint Meeting

We are pleased to report that we will present a session on "Maximizing the Value of Neural Interface Data" at the [NANS2/NIC conference](#) in June in our hometown, Baltimore.

The goal of the session will be to explain how the way something is reported predicts what will be reported and to demonstrate that by presenting a better way to conduct studies and publish data, WIKISTIM will be a positive influence on the quality of the data that will be published as well as on the way these data are analyzed in relation to the findings of other neural interface studies.

We plan to address the following:

- What shortcomings exist with current peer-reviewed publication and meta-analysis paradigms;

- How the neural interface research community can work collaboratively using WIKISTIM to improve 1) study design (resulting in more rigorous, useful, and robust methods of gathering data) and 2) the research reports that present these data (resulting in more thorough reporting);
- How WIKISTIM can extend the useful life of neural interface research data and make these findings immediately accessible and easy to analyze and visualize in light of other reported data (that is, shape research findings to enhance them, preserve them, and make them more widely and easily evident and accessible); and
- Why the neural interface research community is uniquely positioned to benefit from and shape the future of the WIKISTIM model

INTERESTING IDEAS ABOUT THE FUTURE OF ACADEMIC PUBLISHING

In [Academic Journals: The Most Profitable Obsolete Technology in History](#), Jason Schmitt of SAS Confidential claims that

A better approach to academic publishing is to cut out the whole notion of publishing. We don't really need journals as traditionally conceived. The primary role of traditional journals is to provide peer review and for that you don't need a physical journal—you just need an editorial board and an editorial process.

In her synopsis (published in *The Guardian* on 4 April 2015) of a roundtable debate ([After 350 Years of Academic Journals It's Time to Shake Things Up](#)), Anna Gielas noted

Stuart Taylor, the Publishing Director at the Royal Society, raised a more fundamental question about what we expect scientific authors to do. 'Authors still create journals in prose-style — do we really need to produce all that text?' Taylor wondered if the traditional formats were still appropriate for presenting scientific results in the internet age. Taylor's suggestion that the standard structure of a scientific article might be out-of-date met with some approval — and some scepticism. Could researchers sustain a coherent argument without prose?

In an Op-Ed entitled, [In the Digital Age, Science Publishing Needs an Upgrade](#), Daniel Marovitz, CEO of [Faculty of 1000](#), made these comments:

...many perfectly sound articles are rejected, articles take too long to be published, and most articles are published with conclusions, but without the data that supports them. Enough data should be shared by authors to ensure that anyone can replicate their research efforts and achieve similar results...

Science is different. Many journals check not only whether they think the work is well executed, but also if they think it is interesting or important. Whether it is interesting is necessarily a subjective judgment based on the editor's own (sometimes quirky or narrow) interests, and it is almost impossible to know immediately how important a new discovery really is. . . .

Journals and editors should simply determine whether something is legitimate science, and if so, it should hit the website immediately, serving the interests of science, scientists and the public at large. Journals should disseminate all the science they can and let the scientific community openly debate and discuss it — let them sort the wheat from the chaff over time.

After a meeting on [The Future of Scientific Publishing in the Electronic Age](#), published in *Science Editor*, 25(5):155, 2002, Debra A. Wong noted that Michael Mabe, of Elsevier Science . . . introduced a behavioral-functional model that may be used as a predictive tool for developing journals and their functions—registration, dissemination, archiving information, and certification. . . , [Mabe went on to argue that] ‘Authors wish to publish more, increase dissemination, and have access to competitive networks; readers want to read less but also want to obtain high-quality information.’

CURRENT STATUS

Our 4 new subscribers in January increased our total to 307. Please continue to encourage your colleagues to register for access to our free resource.

January 1st numbers (These numbers might not add up from month to month as we delete duplicates. See appendix below for list of new citations.)

- 307 subscribers (4 new)
- SCS citations 1864 (16 new)
- DBS citations 1671 (26 new)
- SNS citations 753 (8 new)
- PNS citations 26 (list remains preliminary)
- DRG citations 31 (0 new)
- GES citations 469 (0 new)

CONTINUING PLANS FOR THE FUTURE

- Encourage people to earn CME credits by filling in datasheets
- Transform our datasheets into forms that can be completed online easily
- Include additional sections, with VNS next in line
- Optimize performance on various platforms (screen sizes, browser types, etc.)
- Create forms for online data submission, with easy checkboxes when applicable
- Link data fields to additional information (e.g., descriptions and preferred uses of study designs and outcome criteria, authors’ CVs, etc.)
- Incorporate cutting edge data visualization graphics that will update immediately as data are extrapolated from papers and uploaded
- Offer a dynamic user experience, including the ability to save searches and customize the way the site behaves
- Secure continued funding
- Continue to make quality improvements

HOW THE NEUROSTIMULATION COMMUNITY CAN HELP

- Submit extracted data from published reports of your choice, or use our datasheets as a guide when you plan your study and write your paper, and then submit the datasheet to us upon journal acceptance.
- Notify us about any reports we might have missed that contain primary data on SCS, SNS, DRG, PNS, GES, DBS/OCD, DBS/Epilepsy, or reports you would like to see added for DBS/PD.
- Suggest website improvements (and thanks to those who have done this—we have incorporated your suggestions to the best of our ability).

FINANCIAL SUPPORT FOR 2015 to 2016

(Listed alphabetically by first name):

- B. Todd Sitzman, MD, MPH
- Greatbatch
- Medtronic
- The NANS Foundation (3-year grant commitment started 2014)
- NEVRO
- Richard B. North, MD
- Thomas Abell, MD

Ongoing 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)

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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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Appendix: Citations added January 28, 2016

DBS-PD (we continue to add older DBS citations that we passed over in our initial list)

1. Brusa L, Pierantozzi M, Peppe A, Altibrandi MG, Giacomini P, Mazzone P, Stanzione P. Deep brain stimulation (DBS) attentional effects parallel those of l-dopa treatment. J Neural Transm (Vienna)

- 2001 108(8-9):1021-1027 [PUBMED](#)
2. Dommerholt J, Issa T. DBS and diathermy interaction induces severe CNS damage. *Neurology* 2001 57(12):2324-2325 [PUBMED](#)
 3. During MJ, Kaplitt MG, Stern MB, Eidelberg D. Subthalamic GAD gene transfer in Parkinson disease patients who are candidates for deep brain stimulation. *Hum Gene Ther* 2001 12(12):1589-1591 [PUBMED](#)
 4. Guridi J, Rodríguez-Oroz MC, Ramos E, Linazasoro G, Obeso JA. Discrepancy between imaging and neurophysiology in deep brain stimulation of medial pallidum and subthalamic nucleus in Parkinson's disease. Spanish. *Neurologia* 2002 17(4):183-192 [PUBMED](#)
 5. Huss DS, Dallapiazza RF, Shah BB, Harrison MB, Diamond J, Elias WJ. Functional assessment and quality of life in essential tremor with bilateral or unilateral DBS and focused ultrasound thalamotomy. *Mov Disord* 2015 30(14):1937-1943 [PUBMED](#)
 6. Iranzo A, Valldeoriola F, Santamaría J, Tolosa E, Rumià J. Sleep symptoms and polysomnographic architecture in advanced Parkinson's disease after chronic bilateral subthalamic stimulation. *J Neurol Neurosurg Psychiatry* 2002 72(5):661-664 [PUBMED](#)
 7. Lyons KE, Koller WC, Wilkinson SB, Pahwa R. Long term safety and efficacy of unilateral deep brain stimulation of the thalamus for parkinsonian tremor. *J Neurol Neurosurg Psychiatry* 2001 71(5):682-684 [PUBMED](#)
 8. Martínez-Martín P, Valldeoriola F, Tolosa E, Pilleri M, Molinuevo JL, Rumià J, Ferrer E. Bilateral subthalamic nucleus stimulation and quality of life in advanced Parkinson's disease. *Mov Disord* 2002 17(2):372-377 [PUBMED](#)
 9. Nasser JA, Falavigna A, Alaminos A, Bonatelli A, Ferraz F. Deep brain stimulation of subthalamic nucleus in Parkinson's disease. Portuguese. *Arq Neuropsiquiatr* 2002 60(1):86-90 [PUBMED](#)
 10. Niketeghad S, Hebb AO, Nedrud J, Hanrahan SJ, Mahoor MH. Motor task event detection using subthalamic nucleus local field potentials. *Conf Proc IEEE Eng Med Biol Soc* 2015 epub [PUBMED](#)
 11. Nutt JG, Rufener SL, Carter JH, Anderson VC, Pahwa R, Hammerstad JP, Burchiel KJ. Interactions between deep brain stimulation and levodopa in Parkinson's disease. *Neurology* 2001 57(10):1835-1842 [PUBMED](#)
 12. Peppe A, Pierantozzi M, Altibrandi MG, Giacomini P, Stefani A, Bassi A, Mazzone P, Bernardi G, Stanzione P. Bilateral GPi DBS is useful to reduce abnormal involuntary movements in advanced Parkinson's disease patients, but its action is related to modality and site of stimulation. *Eur J Neurol* 2001 8(6):579-586 [PUBMED](#)
 13. Perozzo P, Rizzone M, Bergamasco B, Castelli L, Lanotte M, Tavella A, Torre E, Lopiano L. Deep brain stimulation of the subthalamic nucleus in Parkinson's disease: comparison of pre- and postoperative neuropsychological evaluation. *J Neurol Sci* 2001 192(1-2):9-15 [PUBMED](#)
 14. Pierantozzi M, Palmieri MG, Mazzone P, Marciani MG, Rossini PM, Stefani A, Giacomini P, Peppe A, Stanzione P. Deep brain stimulation of both subthalamic nucleus and internal globus pallidus restores intracortical inhibition in Parkinson's disease paralleling apomorphine effects: a paired magnetic stimulation study. *Clin Neurophysiol* 2002 113(1):108-113 [PUBMED](#)
 15. Saleh S, Swanson KI, Lake WB, Sillay KA. Awake neurophysiologically guided versus asleep MRI-guided STN DBS for Parkinson disease: a comparison of outcomes using levodopa equivalents. *Stereotact Funct Neurosurg* 2015 93(6):419-426 [PUBMED](#)
 16. Schneider J, Novak D, Jech R. Optimization of Parkinson disease treatment combining anti-Parkinson drugs and deep brain stimulation using patient diaries. *Conf Proc IEEE Eng Med Biol Soc* 2015 epub [PUBMED](#)
 17. Schubert T, Volkmann J, Müller U, Sturm V, Voges J, Freund HJ, Von Cramon DY. Effects of pallidal deep brain stimulation and levodopa treatment on reaction-time performance in Parkinson's disease. *Exp Brain Res* 2002 144(1):8-16 [PUBMED](#)
 18. Senova S, Hosomi K, Gurruchaga JM, Gouello G, Ouerchefani N, Beaugendre Y, Lepetit H,

- Lefaucheur JP, Badin RA, Dauguet J, Jan C, Hantraye P, Brugières P, Palfi S. Three-dimensional SPACE fluid-attenuated inversion recovery at 3 T to improve subthalamic nucleus lead placement for deep brain stimulation in Parkinson's disease: from preclinical to clinical studies. *J Neurosurg* 2016 epub [PUBMED](#)
19. Valldeoriola F, Pilleri M, Tolosa E, Molinuevo JL, Rumià J, Ferrer E. Bilateral subthalamic stimulation monotherapy in advanced Parkinson's disease: long-term follow-up of patients. *Mov Disord* 2002 17(1):125-132 [PUBMED](#)
 20. Vingerhoets FJ, Villemure JG, Temperli P, Pollo C, Pralong E, Ghika J. Subthalamic DBS replaces levodopa in Parkinson's disease: two-year follow-up. *Neurology* 2002 58(3):396-401 [PUBMED](#)
 21. Wielepp JP, Burgunder JM, Pohle T, Ritter EP, Kinser JA, Krauss JK. Deactivation of thalamocortical activity is responsible for suppression of parkinsonian tremor by thalamic stimulation: a 99mTc-ECD SPECT study. *Clin Neurol Neurosurg* 2001 103(4):228-231 [PUBMED](#)
 22. Woods SP, Fields JA, Lyons KE, Koller WC, Wilkinson SB, Pahwa R, Tröster AI. Neuropsychological and quality of life changes following unilateral thalamic deep brain stimulation in Parkinson's disease: a one-year follow-up. *Acta Neurochir (Wien)* 2001 143(12):1273-1277 [PUBMED](#)

DBS OCD

1. de Koning PP, Figeo M, Endert E, van den Munckhof P, Schuurman PR, Storoosum JG, Denys D, Fliers E. Rapid effects of deep brain stimulation reactivation on symptoms and neuroendocrine parameters in obsessive-compulsive disorder. *Transl Psychiatry* 2016 epub [PUBMED](#)

DBS Epilepsy

1. Krishna V, King NK, Sammartino F, Strauss I, Andrade DM, Wennberg RM, Lozano AM. Anterior nucleus deep brain stimulation for refractory epilepsy: insights into patterns of seizure control and efficacious target. *Neurosurgery* 2016 epub [PUBMED](#)
2. Sobayo T, Mogul DJ. Should stimulation parameters be individualized to stop seizures: evidence in support of this approach. *Epilepsia* 2016 57(1):131-140 [PUBMED](#)
3. Yu W, Walling I, Smith AB, Ramirez-Zamora A, Pilitsis JG, Shin DS. Deep brain stimulation of the ventral pallidum attenuates epileptiform activity and seizing behavior in pilocarpine-treated rats. *Brain Stimul* 2015 epub [PUBMED](#)

SCS

1. Abud EM, Ichiyama RM, Havton LA, Chang HH. Spinal stimulation of the upper lumbar spinal cord modulates urethral sphincter activity in rats after spinal cord injury. *Am J Physiol Renal Physiol* 2015 308(9):F1032-F1040 [PUBMED](#)
2. Buonocore M, Demartini L. Inhibition of somatosensory evoked potentials during different modalities of spinal cord stimulation: a case report. *Neuromodulation* 2016 epub [PUBMED](#)
3. Costa P, Deletis V. Cortical activity after stimulation of the corticospinal tract in the spinal cord. *Clin Neurophysiol* 2015 epub [PUBMED](#)
4. De Caridi G, Massara M, Serra R, Risitano C, Giardina M, Acri IE, Volpe P, David A. Spinal cord stimulation therapy for the treatment of concomitant phantom limb pain and critical limb ischemia. *Ann Vasc Surg* 2016 epub [PUBMED](#)
5. Fu Y-M, Chen C-Y, Qian X-H, Cheng Y-T, Wu C-Y, Sun J-S, Huang C-C, Hu C-K. A microfabricated coil for implantable applications of magnetic spinal cord stimulation. *Conf Proc IEEE Eng Med Biol Soc* 2015 epub [PUBMED](#)
6. Kinfe TM, Pintea B, Link C, Roeske S, Güresir E, Güresir Á, Vatter H. High frequency (10 kHz) or burst spinal cord stimulation in failed back surgery syndrome patients with predominant back pain: preliminary data from a prospective observational study. *Neuromodulation* 2016 epub [PUBMED](#)

7. Krainick JU, Thoden U. Dorsal column stimulation. In: Wall PD, Melzack R (eds). Textbook of Pain. New York: Churchill Livingstone. 1989 701-705
8. Lange S, Smith H, Prusik J, Fama C, Pilitsis JG. Pedometry as an external measure of spinal cord stimulation patient outcomes. Neuromodulation 2016 epub [PUBMED](#)
9. Law JD. Hypothesis about the etiology of unexplained painful myelopathy after minor trauma in the spinal canal. Stereotact Funct Neurosurg 65(1-4):117-119 1995 [PUBMED](#)
10. McPherson JG, Miller RR, Perlmutter SI. Targeted, activity-dependent spinal stimulation produces long-lasting motor recovery in chronic cervical spinal cord injury. Proc Natl Acad Sci USA 2015 112(39):12193-12198 [PUBMED](#)
11. Min X, Kent AR. Modeling the impact of spinal cord stimulation paddle lead position on impedance, stimulation threshold, and activation region. Conf Proc IEEE Eng Med Biol Soc 2015 epub [PUBMED](#)
12. Moufarrij NA. Epidural hematomas after the implantation of thoracic paddle spinal cord stimulators. J Neurosurg 2016 epub [PUBMED](#)
13. Richardson DE, Shatin D. Results of spinal cord stimulation for pain control: long-term collaborative study. American Pain Society 1991 Poster No. 91240, page 56
14. Robb LG, Robb MP. Practical considerations in spinal cord stimulation. Pain 5:S234 1990
15. Safayi S, Miller JW, Wilson S, Shivapour SK, Oelfke TF, Ford AL, Klarmann Staudt A, Abode-Iyamah K, Reddy CG, Jeffery ND, Fredericks DC, Gillies GT, Howard MA 3rd. Treadmill measures of ambulation rates in ovine models of spinal cord injury and neuropathic pain. J Med Eng Technol 2016 epub [PUBMED](#)
16. Shah P, Sureddi S, Alam M, Zhong H, Roy RR, Edgerton VR, Gerasimenko Y. Unique spatiotemporal neuromodulation of the lumbosacral circuitry shapes locomotor success after spinal cord injury. J Neurotrauma 2016 epub [PUBMED](#)

SNS

1. Lyon TD, Ferroni MC, Kadow BT, Slater RC, Zhang Z, Chang V, Lamm V, Shen B, Wang J, Roppolo JR, de Groat WC, Tai C. Pudendal but not tibial nerve stimulation inhibits bladder contractions induced by stimulation of pontine micturition center in cats. Am J Physiol Regul Integr Comp Physiol 2015 epub [PUBMED](#)
2. Marinkovic SP, Miller B, Hughes S, Marinkovic C, Gillen L. Successful bilateral pudendal neuromodulation to treat male detrusor areflexia following severe pubic symphysis fracture, a case report. BMC Urol 2015 epub [PUBMED](#)
3. Peters KM, Jayabalan N, Bui D, Killinger K, Chancellor M, Tyagi P. Effect of sacral neuromodulation on outcome measures and urine chemokines in interstitial cystitis/painful bladder syndrome patients. Low Urin Tract Symptoms 2015 7(2):77-83 [PUBMED](#)
4. Peters KM, Killinger KA, Jaeger C, Chen C. Pilot study exploring chronic pudendal neuromodulation as a treatment option for pain associated with pudendal neuralgia. Low Urin Tract Symptoms 2015 7(3):138-142 [PUBMED](#)
5. Shi P, Fang Y, Yu H. Bladder response to acute sacral neuromodulation while treating rats in different phases of complete spinal cord injury: a preliminary study. Int Braz J Urol 2015 41(6):1194-1201 [PUBMED](#)
6. Williams AE, Croft J, Napp V, Corrigan N, Brown JM, Hulme C, Brown SR, Lodge J, Protheroe D, Jayne DG. SaFaRI: sacral nerve stimulation versus the FENIX™ magnetic sphincter augmentation for adult faecal incontinence: a randomised investigation. Int J Colorectal Dis 2016 epub [PUBMED](#)
7. Wöllner J, Pannek J. Sacral neuromodulation: no more skiing? Scand J Urol 2016 epub [PUBMED](#)
8. Zhang P, Zhang X, Zhang C, Zhang J. Initial experiences of preventing local incision infection during sacral neuromodulation. Chinese. Zhonghua Yi Xue Za Zhi 2015 95(34):2787-2790 [PUBMED](#)