October 2016 News **PLEASE FORWARD TO YOUR COLLEAGUES** **www.wikistim.org**

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.

WIKISTIM IS THREE YEARS OLD!
In October 2013, we went live with zero subscribers and 500 SCS entries. Today we have 382 subscribers and more than 5,700 entries in 6 sections!

Our subscribers live in the USA, Brazil, Australia, the UK, Saudi Arabia, Germany, India, Spain, Sweden, Italy, Belgium, New Zealand, South Korea, France, Canada, The Netherlands, Hungary, Turkey, Denmark, Ireland, Vietnam, Serbia, South Africa, and Morocco. Reflecting the nature of our field, our subscribers include a large proportion of MDs and PhDs as well as psychologists, MBAs, BAs, MSs, engineers (biomedical, chemical, electrical), DOs, computer scientists, marketing professionals, nurses, physiotherapists, neuroscientists, neurologists, pain specialists, library scientists, medical device professionals, pharmacists, and chemists.

COPYRIGHT QUERY
This month, an author sent a PDF of her paper to be sure that it would be included in WIKISTIM. This is just the sort of help that we appreciate, and, as so often happens, we immediately asked for more. In this case, we asked if she would consider filling in a WIKISTIM datasheet. She responded that she would have to check with the journal first. This inspired us to revisit US copyright law. We understand that the data abstraction we publish is "fair use" that limits the exclusivity of copyright. We base this We base this not only on legal opinion but on our own experience: first the longstanding practice by many authors (Dr. North among them) of publishing evidence tables in review chapters and papers and second Ms. Shipley's experience, first in 1978-79 and then over the course of several years in the late 1990s, writing approximately 6,000 abstracts for POPLINE (https://en.wikipedia.org/wiki/POPLINE). Most scientific articles at that time had no abstract, and even if an abstract was available, POPLINE required its own version.

WIKISTIM datasheets create a framework that makes it easy to include important data in what can be termed a "hyper" abstract. Completed datasheets can be downloaded in tabular form, either singly or in combination. At present, only a fraction of WIKISTIM entries has a corresponding completed datasheet. To find completed entries (or partially completed examples), go to the list of SCS papers or DRG papers and click on "Status" in the right-hand top of the table heading. Click on the entry to see how it displays online and note that the information is downloadable in CSV format by clicking the link on the page.

Getting back to the question at hand, US courts use four factors to determine fair use of copyrighted material. The first is the intended use of the copied material, and nonprofit educational purposes such as ours are allowed. The second is the nature of the work that is copied, and technical/scientific publications are more likely to be approved for this exemption than works of fiction. The third is the amount of material that is copied, but this lacks hard and fast general guidelines. The fourth is how copying the work affects it market value. Courts generally look for damage to value, and we believe that inclusion in WIKISITIM increases the value of a paper by making it more likely that a reader will want to access (purchase) the full-text. Notwithstanding our strong position vis-à-vis fair use, we also are careful to paraphrase whenever possible (this can occur naturally as we cut excess words) and to use quotation marks whenever paraphrasing is impossible. Every document is, of course, properly cited.

HOW TO ACKNOWLEDGE YOUR USE OF WIKISTIM IN PUBLICATONS AND PRESENTATIONS

The information about copyright leads naturally to the question of when and how a researcher should cite WIKISTIM. WIKISTIM should be cited (www.wikistim.org) whenever it is has contributed significantly to a search for publications for a review article or to the discussion section in an article reporting primary data, in the same way that researchers might cite The Web of Science, PUBMED, EMBASE, etc.

ADD YOUR WIKISTIM CONTRIBUTIONS TO YOUR CV

If you complete a WIKISTIM datasheet, you may add a line in your CV indicating that you are a WIKISTIM guest editor, and you can earn CME credits (if applicable). One such guest editor is Jeyakumar Subbaroyan, PhD. Jey is Associate Director of Clinical Research for NEVRO, and he completes datasheets for every paper of interest to his company. (He did the same for his previous employer.) We thank Jey for his continued support of WIKISTIM!

NEW SECTION: NONINVASIVE BRAIN STIMULATION

We are pleased to announce that Dr. Jonathan Young, a psychiatry resident at Duke, has volunteered to be WIKISTIM's first editor for a prospective new section devoted to noninvasive brain stimulation. Stay tuned!

WORTH REPEATING

Grant Application Season

We are busy applying for the grants that allow us to continue to offer WIKISTIM free of charge. If you work for a company that offers grants, please take the time to let the appropriate movers and shakers know that you find WIKISTIM useful and are eager to see it continue to grow and become even more useful.

WIKISTIM Is Not Our Only Website

Our neuromodfound.org website presents the "Practice Parameters for the Use of Spinal Cord Stimulation in the Treatment of Chronic Neuropathic Pain," organized as a series of questions and answers covering most aspects of SCS therapy, along with a curated bibliography sorted by topic. We first published these practice parameters as a special supplement to Pain Medicine in 2007 (http://www.ncbi.nlm.nih.gov/pubmed/17995571) and created the website soon thereafter.

While we have devoted attention to the development of WIKISTIM, neuromodfound.org has been awaiting our attention, and interesting things have been happening in the SCS universe, including the investigation of the impact of using novel waveforms. We are in the process of updating the SCS site and creating stronger links between it and WIKISTIM. We invite you to take a look and email any suggestions you might have for its improvement.

Donations Welcome
We are grateful for any donation in any amount from those who use this free resource. As The Neuromodulation Foundation is a 501c(3) organization, donations are charitable contributions and are 100% deductible for those who file US income tax and itemize deductions.

CURRENT STATUS
October numbers (see the appendix for the list of new citations.)

- 383 subscribers
- DBS citations 2453
- DRG citations 39
- GES citations 468
- PNS citations 46
- SCS citations 1952
- SNS citations 788

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.

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)

Richard B. North, MD, Spinal Cord Stimulation
B. Todd Sitzman, MD, MPH, At Large
Konstantin Slavin, MD, Deep Brain Stimulation
Kristl Vonck, MD, PhD, Section on DBS for Epilepsy
To be determined, Vagus Nerve Stimulation

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Jane Shipley

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

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APPENDIX: Citations of new papers that report primary data added October 6, 2016 (we are still adding older citations to DBS for PD, but we will no longer list them here)

DBS Depression (adding to our comprehensive list)

1. Kubu CS, Brelje T, Butters MA, Deckersbach T, Malloy P, Moberg P, Tröster AI, Williamson E, Baltuch GH, Bhati MT, Carpenter LL, Dougherty DD, Howland RH, Rezai AR, Malone DA Jr. Cognitive outcome after ventral capsule/ventral striatum stimulation for treatment-resistant major depression. J Neurol Neurosurg Psychiatry 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27659923

DBS Epilepsy (adding to our comprehensive list)

1. Amiri M, Amiri M, Nazari S, Faez K. A new bio-inspired stimulator to suppress hyper-synchronized neural firing in a cortical network. J Theor Biol 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27620666
2. Kim HY, Hur YJ, Kim HD, Park KM, Kim SE, Hwang TG. Modification of electrophysiological activity pattern after anterior thalamic deep brain stimulation for intractable epilepsy: report of 3 cases. J Neurosurg 2016 epub 1-8 https://www.ncbi.nlm.nih.gov/pubmed/27636181

DBS PD & Miscellaneous (adding to list we are building; starting this month, we are only listing recent publications in the newsletter even though we are catching up with older citations in the database)

1. Almeida L, Rawal PV, Ditty B, Smelser BL, Huang H, Okun MS, Guthrie BL, Walker HC. Deep brain stimulation battery longevity: comparison of monopolar versus bipolar stimulation modes. Mov Disord Clin Pract 2016 3(4):359-366 https://www.ncbi.nlm.nih.gov/pubmed/27617270
2. Boel JA, Odekerken VJ, Schmand BA, Geurtsen GJ, Cath DC, Figee M, van den Munckhof P, de Haan RJ, Schuurman PR, de Bie RM; NSTAPS study group. Cognitive and psychiatric outcome 3 years after globus pallidus pars interna or subthalamic nucleus deep brain stimulation for Parkinson's disease. Parkinsonism Relat Disord 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27688200

3. Chen T, Mirzadeh Z, Chapple K, Lambert M, Ponce FA. Complication rates, lengths of stay, and readmission rates in 'awake' and 'asleep' deep brain simulation. J Neurosurg 2016 epub 1-10 https://www.ncbi.nlm.nih.gov/pubmed/27662532
4. da Silva NM, Ahmadi SA, Tafula SN, Cunha JP, Bötzel K, Vollmar C, Rozanski VE. A diffusion-based connectivity map of the GPi for optimised stereotactic targeting in DBS. Neuroimage 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27646126
5. Dams J, Balzer-Geldsetzer M, Siebert U, Deuschl G, Schuepbach WM, Krack P, Timmermann L, Schnitzler A, Reese JP, Dodel R; EARLYSTIM-investigators. Cost-effectiveness of neurostimulation in Parkinson's disease with early motor complications. Mov Disord 2016 31(8):1183-1191 https://www.ncbi.nlm.nih.gov/pubmed/27506638
6. Farris SM, Giroux ML. Rapid assessment of gait and speech after subthalamic deep brain stimulation. Surg Neurol Int 2016 7(Suppl 19):S545-S550 https://www.ncbi.nlm.nih.gov/pubmed/27583181
7. Fenoy AJ, McHenry MA, Schiess MC. Speech changes induced by deep brain stimulation of the subthalamic nucleus in Parkinson disease: involvement of the dentatorubrothalamic tract. J Neurosurg 2016 epub 1-11 https://www.ncbi.nlm.nih.gov/pubmed/27611200
8. Houvenaghel JF, Duprez J, Argaud S, Naudet F, Dondaine T, Robert GH, Drapier S, Haegelen C, Jannin P, Drapier D, Vérin M, Sauleau P. Influence of subthalamic deep-brain stimulation on cognitive action control in incentive context. Neuropsychologia 2016 91:519-530 https://www.ncbi.nlm.nih.gov/pubmed/27664297
9. Loizon M, Laurencin C, Vial C, Danaila T, Thobois S. High incidence of carpal tunnel syndrome after deep brain stimulation in Parkinson's disease. J Neurol 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27624119
10. Mandali A, Chakravarthy VS. Probing the role of medication, DBS electrode position, and antidromic activation on impulsivity using a computational model of basal ganglia. Front Hum Neurosci 2016 epub 10:450 https://www.ncbi.nlm.nih.gov/pubmed/27672363
11. O'Halloran RL, Chartrain AG, Rasouli J, Ramdhani RA, Kopell BH. Case study of image-guided deep brain stimulation: MRI-based white matter tractography shows differences in responders and non-responders. World Neurosurg 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27593719
12. Pozzi NG, Arnulfo G, Canessa A, Steigerwald F, Nickl R, Homola GA, Fato MM, Matthies C, Pacchetti C, Volkmann J, Isaias IU. Distinctive neuronal firing patterns in subterritories of the subthalamic nucleus. Clin Neurophysiol 2016 127(11):3387-3393 https://www.ncbi.nlm.nih.gov/pubmed/27669486
13. Rolston JD, Englot DJ, Starr PA, Larson PS. An unexpectedly high rate of revisions and removals in deep brain stimulation surgery: analysis of multiple databases. Parkinsonism Relat Disord 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27645504
14. Rosa M, Scelzo E, Locatelli M, Carrabba G, Levi V, Arlotti M, Barbieri S, Rampini P, Priori A. Risk of infection after local field potential recording from externalised deep brain stimulation leads in Parkinson's disease. World Neurosurg 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27686508
15. Ryu HS, Kim MS, You S, Kim MJ, Kim YJ, Kim J, Kim K, Chung SJ. Mortality of advanced Parkinson's disease patients treated with deep brain stimulation surgery. J Neurol Sci 2016 369:230-235 https://www.ncbi.nlm.nih.gov/pubmed/27653896
16. Seymour B, Barbe M, Dayan P, Shiner T, Dolan R, Fink GR. Deep brain stimulation of the subthalamic nucleus modulates sensitivity to decision outcome value in Parkinson's disease. Sci Rep 2016 6:32509 https://www.ncbi.nlm.nih.gov/pubmed/27624437
17. Shah A, Coste J, Lemaire JJ, Taub E, Schüpbach WM, Pollo C, Schkommodau E, Guzman R, Hemm-Ode S. Intraoperative acceleration measurements to quantify improvement in tremor

during deep brain stimulation surgery. Med Biol Eng Comput 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27631560
18. Tanaka Y, Tsuboi T, Watanabe H, Kajita Y, Nakatsubo D, Fujimoto Y, Ohdake R, Ito M, Atsuta N, Yamamoto M, Wakabayashi T, Katsuno M, Sobue G. Articulation features of Parkinson's disease patients with subthalamic nucleus deep brain stimulation. J Parkinsons Dis 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27662325

DRG (updating our comprehensive list)

1. Han S, Kim D, Kim H, Park JW, Youn I. Electrical stimulation inhibits cytosine arabinoside-induced neuronal death by preventing apoptosis in dorsal root ganglion neurons. Neuroreport 2016 27(16):1217-1224 https://www.ncbi.nlm.nih.gov/pubmed/27603731

GES (updating our comprehensive list)

1. Horbach T, Meyer G, Conde SM, Del Agua IA, Favretti F, Anselmino M, Rovera GM, Dargent J, Stroh C, Susewind M, Torres AJ. Closed-loop gastric electrical stimulation versus laparoscopic adjustable gastric band for the treatment of obesity: a randomized 12-month multicenter study. Int J Obes (Lond) 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27633147

SCS (updating our comprehensive list)

1. Chai T, Shroff GS. Intractable pelvic pain due to melorheostosis managed with spinal cord stimulation: a case report. PM R 2016 8(9S):S305 https://www.ncbi.nlm.nih.gov/pubmed/27673191
2. Holinski BJ, Mazurek KA, Everaert DG, Toossi A, Lucas-Osma AM, Troyk P, Etienne-Cummings R, Stein RB, Mushahwar VK. Intraspinal microstimulation produces over-ground walking in anesthetized cats. J Neural Eng 2016 13(5):056016 https://www.ncbi.nlm.nih.gov/pubmed/27619069
3. Leung RH, Stroman PW. Functional magnetic resonance imaging of the human brainstem and cervical spinal cord during cognitive modulation of pain. Crit Rev Biomed Eng 2016 44(1-2):47-71 https://www.ncbi.nlm.nih.gov/pubmed/27652451
4. Levine AB, Parrent AG, MacDougall KW. Cervical spinal cord and dorsal nerve root stimulation for neuropathic upper limb pain. Can J Neurol Sci 2016 epub 1-7 https://www.ncbi.nlm.nih.gov/pubmed/27659776
5. Moussa AA, Glancz L, Das M, Basu S. Spinal cord stimulation during the antepartum and intrapartum periods: a case report showing no deleterious effect of conventional paraesthesia producing stimulation. Acta Neurochir (Wien) 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27614439
6. Pais-Vieira M, Yadav AP, Moreira D, Guggenmos D, Santos A, Lebedev M, Nicolelis MA. A closed loop brain-machine interface for epilepsy control using dorsal column electrical stimulation. Sci Rep 2016 6:32814 https://www.ncbi.nlm.nih.gov/pubmed/27605389
7. Rubino S, Adepoju A, Kumar V, Prusik J, Murphy N, Owusu-Sarpong S, Pilitsis JG. MRI conditionality in patients with spinal cord stimulation devices. Stereotact Funct Neurosurg 2016 94(4):254-258 https://www.ncbi.nlm.nih.gov/pubmed/27632184
8. Shen XY, Du W, Huang W, Chen Y. Rebuilding motor function of the spinal cord based on functional electrical stimulation. Neural Regen Res 2016 11(8):1327-1332 https://www.ncbi.nlm.nih.gov/pubmed/27651782

SNS (updating our comprehensive list)

1. Bartley JM, Killinger KA, Boura JA, Gupta P, Gaines N, Gilleran JP, Peters KM. The impact of prior back surgery on neuromodulation outcomes: a review of over 500 patients. Neurourol Urodyn 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27676460
2. Bartley JM, Ramirez V, Killinger KA, Boura JA, Gupta P, Gaines N, Gilleran JP, Peters KM. Outcomes of sacral neuromodulation in patients with prior surgical treatment of stress urinary incontinence and pelvic organ prolapse. Female Pelvic Med Reconstr Surg 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27636222
3. Duelund-Jakobsen J, Lundby L, Lehur PA, Wyart V, Laurberg S, Buntzen S. Is the efficacy of sacral nerve stimulation for faecal incontinence dependent on the number of active electrode poles achieved during permanent lead insertion? Colorectal Dis 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27619970
4. Hoag N, Plagakis S, Pillay S, Edwards AW, Gani J. Sacral neuromodulation for refractory overactive bladder after prior intravesical onabotulinumtoxinA treatment. Neurourol Urodyn 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27612039
5. Maëlys T, Robain G, Bendaya S. Dystonia of the lower limb after sacral neuromodulation implanted to a 16-year-old boy with non-obstructive chronic urinary retention. Ann Phys Rehabil Med 2016 59S:e106 https://www.ncbi.nlm.nih.gov/pubmed/27676716
6. Rodrigues FG, Chadi SA, Cracco AJ, Sands DR, Zutshi M, Gurland B, Da Silva G, Wexner SD. Faecal incontinence in patients with a sphincter defect: comparison of sphincteroplasty and sacral nerve stimulation. Colorectal Dis 2016 epub https://www.ncbi.nlm.nih.gov/pubmed/27620162