



December 2019 News

PLEASE FORWARD TO YOUR COLLEAGUES

www.wikistim.org

If you are encountering this newsletter for the first time, please visit WIKISTIM's [ABOUT](#) section, which describes the site's unique resources and is accessible without registration.

WE'LL BE IN LAS VEGAS IN JANUARY

We encourage everyone interested in the field of neuromodulation to attend the North American Neuromodulation Society's [Conference](#) in January in Las Vegas. Dr. North will be making several presentations, and we'll be on hand with our latest WIKISTIM update poster.

WATCH FOR THESE WIKISTIM UPGRADES!

As the year draws to a close we will continue to improve our search capacity by tagging entries with keywords drawn from our data categories. We will also be adding our new section on Non-invasive Brain Stimulation and finalizing our new data entry system, which we have been developing for months.

NEW USER INTERFACE FOR PUBMED

PUBMED is rolling out a new version of its website. We are in communication with the developers in the hope of encouraging them to maintain features that we have relied on in our monthly searches and are confident that we will be able to continue using PUBMED as our main resource for updating WIKISTIM. This is a good time to check out the new version of PUBMED as it is being developed so you can be sure it meets your needs.

PLEASE REMEMBER WIKISTIM AS YOU MAKE YOUR YEAR-END DONATIONS

WIKISTIM is brought to you free of charge by The Neuromodulation Foundation, Inc. Our non-profit status relies on a certain amount of public support, and we are grateful for each and every donation from individuals, no matter how small. See **SUPPORT FOR WIKISTIM** below for more information.

DECEMBER 2019 STATISTICS

Most clicked PUBMED links during the past month from previous newsletters

1. Levy RM, Mekhail N, Kramer J, Poree L, Amirdelfan K, Grigsby E, Staats P, Burton AW, Burgher AH, Scowcroft J, Golovac S, Kapural L, Paicius R, Pope J, Samuel S, McRoberts WP, Schaufele M, Kent AR, Raza A, Deer TR. Therapy habituation at 12 months: spinal cord stimulation versus dorsal root ganglion stimulation for complex regional pain syndrome type I and II. J Pain 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31494275>

2. Atchley TJ, Laskay NMB, Sherrod BA, Rahman AKMF, Walker HC, Guthrie BL. Reoperation for device infection and erosion following deep brain stimulation implantable pulse generator placement. *J Neurosurg* 2019 epub:1-8 <https://www.ncbi.nlm.nih.gov/pubmed/31174189>
3. Anderson DJ, Kipke DR, Nagel SJ, Lempka SF, Machado AG, Holland MT, Gillies GT, Howard MA 3rd, Wilson S. Intradural spinal cord stimulation: performance modeling of a new modality. *Front Neurosci* 2019 epub 13:253 <https://www.ncbi.nlm.nih.gov/pubmed/30941012>
4. Alpaugh M, Saint-Pierre M, Dubois M, Aubé B, Arsenault D, Kriz J, Cicchetti A, Cicchetti F. A novel wireless brain stimulation device for long-term use in freely moving mice. *Sci Rep* 2019 9(1):6444 <https://www.ncbi.nlm.nih.gov/pubmed/31015544>
5. Cheung SW, Racine CA, Henderson-Sabes J, Demopoulos C, Molinaro AM, Heath S, Nagarajan SS, Bourne AL, Rietcheck JE, Wang SS, Larson PS. Phase I trial of caudate deep brain stimulation for treatment-resistant tinnitus. *J Neurosurg* 2019 epub:1-10 <https://www.ncbi.nlm.nih.gov/pubmed/31553940>
6. Al-Fatly B, Ewert S, Kübler D, Kroneberg D, Horn A, Kühn AA. Connectivity profile of thalamic deep brain stimulation to effectively treat essential tremor. *Brain* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31377766>
7. Cao L, Li J, Zhou Y, Liu Y, Liu H. Automatic feature group combination selection method based on GA for the functional regions clustering in DBS. *Comput Methods Programs Biomed* 2019 epub 183:105091 <https://www.ncbi.nlm.nih.gov/pubmed/31590098>

Membership

In November, the number of our subscribers grew to 1130. Thank you for helping to spread the word!

Number of citations in each section

- DBS 5179, with 2 completed WIKISTIM abstracts
- DRG 119, with 9 completed WIKISTIM abstracts
- GES 491
- PNS 57 (limited to peripheral nerve field stimulation)
- SCS 2408, with 131 completed or partially completed WIKISTIM abstracts
- SNS 971

SUPPORT FOR WIKISTIM

The Neuromodulation Foundation is a non-profit charitable corporation with a paid staff of one person and almost no overhead costs. The Foundation supports WIKISTIM by seeking grants and donations and with income earned through appropriate consulting work. Please consider making a donation via PAYPAL using this [DONATE](#) link or by sending a check to The Neuromodulation Foundation, 117 East 25th Street, Baltimore, MD 21218. Please encourage institutional and corporate sponsors as well. We'd love to add your name and theirs to our list of financial supporters below!

Individual supporters in 2018-19

- Thomas Abell, MD
- Richard B. North, MD
- B. Todd Sitzman, MD, MPH

Industry support 2018-19

- Boston Scientific
- Medtronic
- Nevro
- Nuvectra

Nonprofit support

- The International Neuromodulation Society (publicity and conference registration)
- The Neuromodulation Foundation, Inc. (WIKISTIM's parent organization)
- The North American Neuromodulation Society (publicity, conference registration, grant)

CITATIONS ADDED FROM SEARCH ON NOVEMBER 29, 2019

DBS

1. Anderson DN, Anderson C, Lanka N, Sharma R, Butson CR, Baker BW, Dorval AD. The μ DBS: multiresolution, directional deep brain stimulation for improved targeting of small diameter fibers. *Front Neurosci* 2019 epub 13:1152 <https://www.ncbi.nlm.nih.gov/pubmed/31736693>
2. Barbe MT, Tonder L, Krack P, Debû B, Schüpbach M, Paschen S, Dembek TA, Kühn AA, Fraix V, Brefel-Courbon C, Wojtecki L, Maltête D, Damier P, Sixel-Döring F, Weiss D, Pinsker M, Witjas T, Thobois S, Schade-Brittinger C, Rau J, Houeto JL, Hartmann A, Timmermann L, Schnitzler A, Stoker V, Vidailhet M, Deuschl G; EARLYSTIM study group. Deep brain stimulation for freezing of gait in Parkinson's disease with early motor complications. *Mov Disord* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31755599>
3. Beszlej JA, Siwicki D, Fila-Witecka K, Wieczorek T, Piotrowski P, Weiser A, Tabakow P, Rymaszewska J. Deep brain stimulation in obsessive-compulsive disorder - case report of two patients. *Psychiatr Pol* 2019 53(4):807-824 <https://www.ncbi.nlm.nih.gov/pubmed/31760411>
4. Bolier E, Karl JA, Wiet RM, Borghei A, Metman LV, Sani S. Operative technique and workflow of deep brain stimulation surgery with pre-existing cochlear implants. *Oper Neurosurg (Hagerstown)* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31768551>
5. Cordeiro JG, Diaz A, Davis JK, Di Luca DG, Farooq G, Luca CC, Jagid JR. Safety of non-contrast imaging guided DBS electrode placement in Parkinson's disease. *World Neurosurg* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31756502>
6. Gong S, Xu M, Tao Y, Liu Y, Jin H, Sun X, Wang S, Yang X, Wang Y, Yuan L, Song W. Comparison of subthalamic nucleus and globus pallidus internus deep brain stimulation surgery on Parkinson's disease-related pain. *World Neurosurg* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31733388>
7. Gunalan K, McIntyre CC. Biophysical reconstruction of the signal conduction underlying short-latency cortical evoked potentials generated by subthalamic deep brain stimulation. *Clin Neurophysiol* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31757636>
8. Isobe T, Sato H, Goto T, Yako T, Yoshida K, Hashimoto T. Long-term suppression of disabling tremor by thalamic stimulation in a patient with spinocerebellar ataxia type 2. *Stereotact Funct Neurosurg* 2019 epub:1-3 <https://www.ncbi.nlm.nih.gov/pubmed/31743916>
9. Kimura Y, Ikegaya N, Iijima K, Takayama Y, Kaneko Y, Omori M, Kaido T, Kano Y, Iwasaki M. Withdrawal of deep brain stimulation in patients with Gilles de la Tourette syndrome. *Mov Disord* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31737941>
10. Liu DF, Chen YC, Zhu GY, Wang X, Jiang Y, Liu HG, Zhang JG. Effects of anterior thalamic nuclei stimulation on gene expression in a rat model of temporal lobe epilepsy. *Acta Neurol Belg* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31758405>
11. Matsuura K, Maeda M, Satoh M, Tabei KI, Araki T, Umino M, Kajikawa H, Nakamura N, Tomimoto H. Low pulvinar intensity in susceptibility-weighted imaging may suggest cognitive worsening after deep brain stimulation therapy in patients with Parkinson's disease. *Front Neurol* 2019 epub 10:1158 <https://www.ncbi.nlm.nih.gov/pubmed/31736863>
12. Rappel P, Grosberg S, Arkadir D, Linetsky E, Abu Snineh M, Bick AS, Tamir I, Valsky D, Marmor O, Abo Foul Y, Peled O, Gilad M, Daudi C, Ben-Naim S, Bergman H, Israel Z, Eitan R. Theta-alpha

oscillations characterize emotional subregion in the human ventral subthalamic nucleus. *Mov Disord* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31758821>

13. Sancar F. Deep brain stimulation for tinnitus, tumors hijack neurons in brain cancer, and multiple sclerosis and immunizations: *Neuro Nook*. *JAMA* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31721999>
14. Yan H, Boutet A, Mithani K, Germann J, Elias GJB, Yau I, Go C, Kalia SK, Lozano AM, Fasano A, Ibrahim GM. Aggressiveness after centromedian nucleus stimulation engages prefrontal thalamocortical circuitry. *Brain Stimul* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31727583>
15. Yao L, Brown P, Shoaran M. Improved detection of parkinsonian resting tremor with feature engineering and Kalman filtering. *Clin Neurophysiol* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31744673>
16. Yu Y, Hao Y, Wang Q. Model-based optimized phase-deviation deep brain stimulation for Parkinson's disease. *Neural Netw* 2019 122:308-319 epub <https://www.ncbi.nlm.nih.gov/pubmed/31739269>
17. Zsigmond P, Ljunggren SA, Ghafouri B. Proteomic analysis of the cerebrospinal fluid in patients with essential tremor before and after deep brain stimulation surgery: a pilot study. *Neuromodulation* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31755628>

DRG

1. Chapman KB, Ramsook RR, Groenen PS, Vissers KC, van Helmond N. Lumbar transgrade dorsal root ganglion stimulation lead placement in patients with post-surgical anatomical changes: a technical note. *Pain Pract* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31725944>
2. Franken G, Debets J, Joosten EAJ. Nonlinear relation between burst dorsal root ganglion stimulation amplitude and behavioral outcome in an experimental model of painful diabetic peripheral neuropathy. *Neuromodulation* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31738474>
3. Huygen FJPM, Kallewaard JW, Nijhuis H, Liem L, Vesper J, Fahey ME, Blomme B, Morgalla MH, Deer TR, Capobianco RA. Effectiveness and safety of dorsal root ganglion stimulation for the treatment of chronic pain: a pooled analysis. *Neuromodulation* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31730273>

GES

1. Doshi S, Patel A, Stocker A, Scoggins C, Agrawal L, Abell T. Gastric electrical stimulation is an effective treatment modality for refractory gastroparesis in a postsurgical patient with pancreatic cancer. *Case Rep Gastroenterol* 2019 13(3):430-437 <https://www.ncbi.nlm.nih.gov/pubmed/31762731>

SCS

1. Abdullah N, Muir C, Eldrige JS, Pingree MJ, Hagedorn JM. Peri-procedural management of implanted spinal cord stimulators in patients undergoing radiofrequency ablation: a case report and manufacturer specific recommendations. *Pain Pract* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31746540>
2. Ardell JL, Foreman RD, Armour JA, Shivkumar K. Cardiac sympathectomy and spinal cord stimulation attenuate reflex-mediated norepinephrine release during ischemia preventing ventricular fibrillation. *JCI Insight* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31671074>
3. De Jaeger M, Goudman L, Eldabe S, Van Dongen R, De Smedt A, Moens M. The association between pain intensity and disability in patients with failed back surgery syndrome, treated with

- spinal cord stimulation. *Disabil Rehabil* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31760811>
4. Epstein RH, Dexter F, Podgorski EM 3rd, Pearson ACS. Annual number of spinal cord stimulation procedures performed in the state of Florida during 2018: implications for establishing neuromodulation centers of excellence. *Neuromodulation* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31710405>
 5. Hale J, Bailey-Classen A, Cheng J. Spinal cord stimulation for refractory angina pectoris. *Pain Med* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31755913>
 6. Jonsson E, Hansson-Hedblom A, Kirketeig T, Fritzell P, Hägg O, Borgström F. Cost and health outcomes patterns in patients treated with spinal cord stimulation following spine surgery-a register-based study. *Neuromodulation* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31667934>
 7. Leiphart J, Barrett M, Shenai MB. Economic inequities in the application of neuromodulation devices. *Cureus* 2019 11(9):e5685 <https://www.ncbi.nlm.nih.gov/pubmed/31720154>
 8. Li G, Fan ZK, Gu GF, Jia ZQ, Zhang QQ, Dai JY, He SS. Epidural spinal cord stimulation promotes motor functional recovery by enhancing oligodendrocyte survival and differentiation and by protecting myelin after spinal cord injury in rats. *Neurosci Bull* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31732865>
 9. Mekhail N, Costandi S, Mehanny DS, Armanyous S, Saied O, Taco-Vasquez E, Saweris Y. The impact of tobacco smoking on spinal cord stimulation effectiveness in complex regional pain syndrome patients. *Neuromodulation* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31710411>
 10. Russo M, Verrills P, Santarelli D, Gupta S, Martin J, Hershey B. A novel composite metric for predicting patient satisfaction with spinal cord stimulation. *Neuromodulation* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31747105>
 11. Schwarm FP, Stein M, Uhl E, Maxeiner H, Kolodziej MA. Spinal cord stimulation for the treatment of complex regional pain syndrome leads to improvement of quality of life, reduction of pain and psychological distress: a retrospective case series with 24 months follow up. *Scand J Pain* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31743107>
 12. Smith TM, Lee D, Bradley K, McMahon SB. Methodology for quantifying excitability of identified projection neurons in the dorsal horn of the spinal cord, specifically to study spinal cord stimulation paradigms. *J Neurosci Methods* 2019 epub:108479
<https://www.ncbi.nlm.nih.gov/pubmed/31705935>
 13. Sunshine MD, Ganji CN, Fuller DD, Moritz CT. Respiratory resetting elicited by single pulse spinal stimulation. *Respir Physiol Neurobiol* 2019 epub:103339
<https://www.ncbi.nlm.nih.gov/pubmed/31734416>
 14. Texakalidis P, Tora MS, Nagarajan P, Keifer OP Jr, Boulis NM. High cervical spinal cord stimulation for occipital neuralgia: a case series and literature review. *J Pain Res* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31686897>
 15. Zhong H, Zhu C, Minegishi Y, Richter F, Zdunowski S, Roy RR, Vissel B, Gad P, Gerasimenko Y, Chesselet MF, Edgerton VR. Epidural spinal cord stimulation improves motor function in rats with chemically induced parkinsonism. *Neurorehabil Neural Repair* 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31684831>

SNS

1. Chapple KS, Morris SJ. Sacral nerve stimulation in patients with slow transit constipation. *Tech Coloproctol* 2019 epub <https://www.ncbi.nlm.nih.gov/pubmed/31728783>
2. Harvie HS, Amundsen CL, Neuwahl SJ, Honeycutt AA, Lukacz ES, Sung VW, Rogers RG, Ellington D, Ferrando CA, Chermansky CJ, Mazloomdoost D, Thomas S; NICHD Pelvic Floor Disorders Network.

Cost effectiveness of sacral neuromodulation versus onabotulinumtoxinA for refractory urgency urinary incontinence: results of the ROSETTA randomized trial. J Urol 2019 epub
<https://www.ncbi.nlm.nih.gov/pubmed/31738113>

EDITORIAL BOARD

Editor-in-chief

[Richard B. North, MD](#)

Section editors

[Thomas Abell, MD](#), Gastric Electrical Stimulation
Tracy Cameron, PhD, Peripheral Nerve Stimulation
[Roger Dmochowski, MD](#), Sacral Nerve Stimulation
Robert Foreman, MD, PhD, Experimental Studies
[Elliot Krames, MD](#), Dorsal Root Ganglion Stimulation
[Bengt Linderöth, MD, PhD](#), Experimental Studies
[Richard B. North, MD](#), Spinal Cord Stimulation
B. Todd Sitzman, MD, MPH, At Large
[Konstantin Slavin, MD, PhD](#), Deep Brain Stimulation
[Kristl Vonck, MD, PhD](#), Deep Brain Stimulation for Epilepsy
Richard Weiner, MD, Peripheral Nerve Stimulation
[Jonathan Young, MD](#), Noninvasive Brain Stimulation
To be determined, Vagus Nerve Stimulation

Managing editor

[Jane Shipley](#)

Disclosure

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

A reminder about personal information

We never share our registrants' personal information or email addresses.

CONTACT

The Neuromodulation Foundation, Inc.
117 East 25th Street
Baltimore, MD 21218
wikistim@gmail.com
wikistim.org
neuromodfound.org