



August 2020 News

PLEASE FORWARD TO YOUR COLLEAGUES

[www.wikistim.org](http://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.*

### FROM ONE MONTH TO THE NEXT

As of today, new cases of COVID-19 in our home state of Maryland remain at the unacceptably high level they attained after the July 4th holiday (before which we had a steady decline). In Baltimore City, which is an independent entity, the total number of cases is 11,406, and the surrounding Baltimore County reports another 11,997. But we have good news: the nursing home we told you about last month, which is in a low-income, inner-city Baltimore neighborhood where 448 cases have occurred, remains infection-free, as reported in [The Washington Post](#) on July 24th and confirmed via a phone call today. This nursing home, with mostly Medicaid patients, has been operating at a deficit for years, with the short-fall made up by donations. The pastor divided among the nursing home staff members his first unsolicited donation of \$10,000 given in recognition of their excellent work keeping SARS-CoV-2 at bay. He is now hoping that the interest generated by their success will generate [additional donations](#) to bring long-held dreams of improvements to fruition. As a disclaimer, we have no attachment to this facility or its director or staff beyond pride that a Baltimore city institution is showing the country what good sense and reasonable precautions can achieve.

In other news, our GES Editor, Dr. Thomas Abell, has generously shared [a link to a grand rounds talk](#) he gave via Zoom for Northwell in June as part of the Dr. Isadore (Zed) Horowitz Lecture Series. And the live online [27th Napa Pain Conference](#) will be held online on August 14-15, with free registration and CME credits.

We send our best wishes to everyone reading this newsletter along with our hope that you are and remain safe and healthy.

***In Memoriam: Joseph J. Costa, MD, Chief of the Critical Care Division at Mercy Medical Center in Baltimore City, who died of COVID-19 on July 25th at the age of 56 after successfully treating a host of infected patients.***

### AUGUST 2020 STATISTICS

#### Membership

In July, the number of our subscribers grew to 1284. Thank you for helping to spread the word!

#### Number of citations in each section

- DBS 5598, with 2 completed WIKISTIM abstracts
- DRG 135, with 9 completed WIKISTIM abstracts
- GES 500
- PNS 60 (limited to peripheral nerve field stimulation)
- SCS 2539 with 132 completed or partially completed WIKISTIM abstracts
- SNS 1024

## CITATIONS ADDED FROM SEARCH ON July 28/29, 2020

See below for the list of citations that received the most-clicks last month.

### DBS

1. Ågren R, Bartek J Jr, Johansson A, Blomstedt P, Fyttagoridis A. Pulse width and implantable pulse generator longevity in pallidal deep brain stimulation for dystonia: a population-based comparative effectiveness study. *Stereotact Funct Neurosurg* 2020 epub 1-6 [PubMed](#)
2. Baek C, Kim S, Jang JW, Jung Y, Choi GJ, Shim S, Yun S, Seo K, Song YK, Kim SJ, Seo JM. Investigation of stereotactic surgery for avian brain stimulation by a fully implanted wireless system. *Neurosurg Focus* 2020 49(1):E10 [PubMed](#) [Free Full Text](#)
3. Béreau M, Kibleur A, Bouthour W, Tomkova Chaoui E, Maling N, Nguyen TAK, Momjian S, Vargas Gomez MI, Zacharia A, Bally JF, Fleury V, Tatu L, Burkhard PR, Krack P. Modeling of electric fields in individual imaging atlas for capsular threshold prediction of deep brain stimulation in Parkinson's disease: a pilot study. *Front Neurol* 2020 11:532 [PubMed](#) [Free Full Text](#)
4. Bledsoe IO, Dodenhoff KA, San Luciano M, Volz MM, Starr PA, Markun LC, Ostrem JL. Phenomenology and management of subthalamic stimulation-induced dyskinesia in patients with isolated dystonia. *Mov Disord Clin Pract* 2020 7(5):548-551 [PubMed](#)
5. Bove F, Fraix V, Cavallieri F, Schmitt E, Lhommée E, Bichon A, Meoni S, Péliissier P, Kistner A, Chevrier E, Ardouin C, Limousin P, Krack P, Benabid AL, Chabardès S, Seigneuret E, Castrioto A, Moro E. Dementia and subthalamic deep brain stimulation in Parkinson disease: a long-term overview. *Neurology* 2020 95(4):e384-e392 [PubMed](#)
6. Bruno S, Nikolov P, Hartmann CJ, Trenado C, Slotty PJ, Vesper J, Schnitzler A, Groiss SJ. Directional deep brain stimulation of the thalamic ventral intermediate area for essential tremor increases therapeutic window. *Neuromodulation* 2020 epub [PubMed](#) [Full Text](#)
7. Butenko K, Bahls C, Schröder M, Köhling R, van Rienen U. OSS-DBS: Open-source simulation platform for deep brain stimulation with a comprehensive automated modeling. *PLOS Comput Biol* 2020 16(7):e1008023 [PubMed](#) [Free Full Text](#)
8. Campbell MC, Myers PS, Weigand AJ, Foster ER, Cairns NJ, Jackson JJ, Lessov-Schlaggar CN, Perlmutter JS. Parkinson disease clinical subtypes: key features & clinical milestones. *Ann Clin Transl Neurol* 2020 epub [PubMed](#) [Free Full Text](#)
9. Cernera S, Eisinger RS, Wong JK, Ho KWD, Lopes JL, To K, Carbutaru S, Ramirez-Zamora A, Almeida L, Foote KD, Okun MS, Gunduz A. Long-term Parkinson's disease quality of life after staged DBS: STN vs GPi and first vs second lead. *NPJ Parkinsons Dis* 2020 6:13 [PubMed](#) [Free Full Text](#)
10. Cong F, Liu X, Liu CJ, Xu X, Shen Y, Wang B, Zhuo Y, Yan L. Improved depiction of subthalamic nucleus and globus pallidus internus with optimized high-resolution quantitative susceptibility mapping at 7 T. *NMR Biomed* 2020 epub e4382 [PubMed](#)
11. de Almeida Marcelino AL, Mainka T, Krause P, Poewe W, Ganos C, Kühn AA. Deep brain stimulation reduces (nocturnal) dyskinesia exacerbations in patients with ADCY5 mutation: a case series. *J Neurol* 2020 epub [PubMed](#) [Free Full Text](#)
12. Deeb W, Leentjens AFG, Mogilner AY, Servello D, Meng F, Zhang J, Galbiati TF, Okun MS. Deep brain stimulation lead removal in Tourette syndrome. *Parkinsonism Relat Disord* 2020 77:89-

13. Dhokte N, Sankhla CS, Ratan C, Sankhe M. Cardiac asystole during deep brain stimulation surgery. *Neurol India* 2020 68(3):696-697 [PubMed](#)
14. Di Costa S, Barow E, Hidding U, Mainka T, Pötter-Nerger M, Buhmann C, Moll CKE, Haggard P, Ganos C. Dopamine boosts intention and action awareness in Parkinson's disease. *Exp Brain Res* 2020 epub [PubMed](#) [Free Full Text](#)
15. Elias GJB, De Vloo P, Germann J, Boutet A, Gramer RM, Joel SE, Morlion B, Nuttin B, Lozano AM. Mapping the network underpinnings of central post-stroke pain and analgesic neuromodulation. *Pain* 2020 epub [PubMed](#)
16. Fleming JE, Orłowski J, Lowery MM, Chaillet A. Self-tuning deep brain stimulation controller for suppression of beta oscillations: analytical derivation and numerical validation. *Front Neurosci* 2020 epub 14:639 [PubMed](#) [Free Full Text](#)
17. Giordano F, Caporalini C, Peraio S, Mongardi L, Buccoliero AM, Cavallo MA, Genitori L, Lenge M, Mura R, Melani F, L'Erario M, Lelli L, Pennica M. Post-mortem histopathology of a pediatric brain after bilateral DBS of GPI for status dystonicus: case report and review of the literature. *Childs Nerv Syst* 2020 epub [PubMed](#)
18. Goh CH, Abdullah JY, Idris Z, Ghani ARI, Abdullah JM, Wong ASH, Tharakan J, Win SM. Detailed anatomical volumetric study of deep nuclei of brain and other structures between Parkinson's disease patients who had deep brain stimulation and control group. *Malays J Med Sci* 2020 27(3):53-60 [PubMed](#) [Free Full Text](#)
19. Gratwicke J, Oswal A, Akram H, Jahanshahi M, Hariz M, Zrinzo L, Foltynie T, Litvak V. Resting state activity and connectivity of the nucleus basalis of Meynert and globus pallidus in Lewy body dementia and Parkinson's disease dementia. *Neuroimage* 2020 epub 117184 [PubMed](#) [Free Full Text](#)
20. Gravbrot N, Burket A, Saranathan M, Kasoff WS. Asleep deep brain stimulation of the nucleus ventralis intermedius for essential tremor using indirect targeting and interventional magnetic resonance imaging: single-institution case series. *Mov Disord Clin Pract* 2020 7(5):521-530 [PubMed](#)
21. Grembecka B, Glac W, Listowska M, Jerzemowska G, Plucińska K, Majkutewicz I, Badtke P, Wrona D. Subthalamic deep brain stimulation affects plasma corticosterone concentration and peripheral immunity changes in rat model of Parkinson's disease. *J Neuroimmune Pharmacol* 2020 epub [PubMed](#) [Free Full Text](#)
22. Guercio LA, Wimmer ME, Schmidt HD, Swinford-Jackson SE, Pierce RC, Vassoler FM. Deep brain stimulation of the infralimbic cortex attenuates cocaine priming-induced reinstatement of drug seeking. *Brain Res* 2020 epub 1746:147011 [PubMed](#)
23. Hacker ML, Turchan M, Heusinkveld LE, Currie AD, Millan SH, Molinari AL, Konrad PE, Davis TL, Phibbs FT, Hedera P, Cannard KR, Wang L, Charles D. Deep brain stimulation in early-stage Parkinson disease: five-year outcomes. *Neurology* 2020 95(4):e393-e401 [PubMed](#)
24. Hamani C, Davidson B, Levitt A, Meng Y, Corchs F, Abrahao A, Rabin JS, Giacobbe P, Lipsman N. Patient with posttraumatic stress disorder successfully treated with deep brain stimulation of the medial prefrontal cortex and uncinat fasciculus. *Biol Psychiatry* 2020 epub [PubMed](#)
25. Harding L, Illes J. RE: Canadian assessment of deep brain stimulation access: The Canada Study. *Can J Neurol Sci* 2020 epub 1-7 [PubMed](#)
26. Hirato M, Miyagishima T, Gouda T, Takahashi A, Yoshimoto Y. Electrical thalamic stimulation in the anterior part of the ventral posterolateral nucleus for the treatment of patients with central poststroke pain. *Neuromodulation* 2020 epub [PubMed](#) [Full Text](#)
27. Hwang BY, Mampre D, Mills K, Courtney P, Kim MJ, Butala AA, Anderson WS. Non-staged bilateral globus pallidus internus deep brain stimulation lead revision using intraoperative MRI: a case report and literature review. *Br J Neurosurg* 2020 epub10:1-5 [PubMed](#)

28. Jackowiak E, Maher AC, Persad C, Kotagal V, Wyant K, Heston A, Patil PG, Chou KL. Caregiver burden worsens in the second year after subthalamic nucleus deep brain stimulation for Parkinson's disease. *Parkinsonism Relat Disord* 2020 epub 78:4-8 [PubMed](#)
29. Johnson KA, Duffley G, Anderson DN, Ostrem JL, Welter ML, Baldermann JC, Kuhn J, Huys D, Visser-Vandewalle V, Foltynie T, Zrinzo L, Hariz M, Leentjens AFG, Mogilner AY, Pourfar MH, Almeida L, Gunduz A, Foote KD, Okun MS, Butson CR. Structural connectivity predicts clinical outcomes of deep brain stimulation for Tourette syndrome. *Brain* 2020 epub:awaa188 [PubMed](#)
30. Kakusa B, Saluja S, Dadey DYA, Barbosa DAN, Gattas S, Miller KJ, Cowan RP, Kouyoumdjian Z, Pouratian N, Halpern CH. Electrophysiology and structural connectivity of the posterior hypothalamic region: much to learn from a rare indication of deep brain stimulation. *Front Hum Neurosci* 2020 epub 14:164 [PubMed](#) [Free Full Text](#)
31. Karthick PA, Wan KR, An Qi AS, Dauwels J, King NKK. Automated detection of subthalamic nucleus in deep brain stimulation surgery for Parkinson's disease using microelectrode recordings and wavelet packet features. *J Neurosci Methods* 2020 epub 343:108826 [PubMed](#)
32. Kern DS, Uy D, Rhoades R, Ojemann S, Abosch A, Thompson JA. Discrete changes in brain volume after deep brain stimulation in patients with Parkinson's disease. *J Neurol Neurosurg Psychiatry* 2020 epub jnnp-2019-322688 [PubMed](#)
33. Kim MS, Ryu HS, Park KW, Choi N, You S, Kim MJ, Kim YJ, Kim J, Kim K, Chung SJ. Age-dependent efficacy of subthalamic nucleus deep brain stimulation in young- and late-onset Parkinson's disease based on a 10 year follow-up. *J Neurol Sci* 2020 epub 416:117004 [PubMed](#)
34. Koeglsperger T, Mehrkens JH, Bötzel K. Bilateral double beta peaks in a PD patient with STN electrodes. *Acta Neurochir (Wien)* 2020 epub [PubMed](#) [Free Full Text](#)
35. Li N, Baldermann JC, Kibleur A, Treu S, Akram H, Elias GJB, Boutet A, Lozano AM, Al-Fatly B, Strange B, Barcia JA, Zrinzo L, Joyce E, Chabardes S, Visser-Vandewalle V, Polosan M, Kuhn J, Kühn AA, Horn A. A unified connectomic target for deep brain stimulation in obsessive-compulsive disorder. *Nat Commun* 2020 11(1):3364 [PubMed](#) [Free Full Text](#)
36. Li XY, Dai LF, Wan XH, Guo Y, Dai Y, Li SL, Fang F, Wang XH, Zhang WH, Liu TH, Xie ZH, Fang T, Wang L, Ding CH. Clinical phenotypes, genotypes and treatment in Chinese dystonia patients with KMT2B variants. *Parkinsonism Relat Disord* 2020 77:76-82 [PubMed](#)
37. Liu H, Temel Y, Boonstra J, Heschem S. Correction to: The effect of fornix deep brain stimulation in brain diseases. *Cell Mol Life Sci* 2020 [PubMed](#) [Free Full Text](#)
38. Liu Q, Jiao Y, Yang W, Gao B, Hsu DK, Nolta J, Russell M, Lyeth B, Zanto TP, Zhao M. Intracranial alternating current stimulation facilitates neurogenesis in a mouse model of Alzheimer's disease. *Alzheimers Res Ther* 2020 12(1):89 [PubMed](#) [Free Full Text](#)
39. Macerollo A, Hammersley B, Bonello M, Somerset J, Bhargava D, Das K, Osman-Farah J, Eldridge PR, Alusi SH. Deep brain stimulation for post-thalamic stroke complex movement disorders. *Neurol Sci* 2020 epub [PubMed](#)
40. Mackel CE, Papavassiliou E, Alterman RL. Risk factors for wire fracture or tethering in deep brain stimulation: a 15-year experience. *Oper Neurosurg (Hagerstown)* 2020 epub opaa215 [PubMed](#)
41. Margolesky J, Shpiner DS, Moore H, Singer C, Jagid J, Luca CC. From *Mucuna pruriens* to deep brain stimulation: a two-decade case history. *Parkinsonism Relat Disord* 2020 epub 77:26-27 [PubMed](#)
42. McCall MV, Riva-Posse P, Garlow SJ, Mayberg HS, Crowell AL. Analyzing non-verbal behavior throughout recovery in a sample of depressed patients receiving deep brain stimulation. *Neurol Psychiatry Brain Res* 2020 epub 37:33-40 [PubMed](#)
43. Milanowski Ł, Grassle AL, Uitti RJ. DBS patient with diagnosed non-Hodgkin's lymphoma: is radiation therapy safe? *Neurol Neurochir Pol* 2020 epub [PubMed](#) [Free Full Text](#)
44. Mohammed M, Thelin J, Gällentoft L, Thorbergsson PT, Kumosa LS, Schouenborg J, Pettersson LME. Ice coating-a new method of brain device insertion to mitigate acute injuries. *J Neurosci*

Methods 2020 epub [PubMed Free Full Text](#)

45. Moran C, Sarangmat N, Gerard CS, Barua N, Ashida R, Woolley M, Pietrzyk M, Gill SS. Two hundred twenty-six consecutive deep brain stimulation electrodes placed using an "asleep" technique and the Neuro|Mate™ robot for the treatment of movement disorders. *Oper Neurosurg (Hagerstown)*. 2020 epub opaa176 [PubMed](#) Full text available from PUBMED link (token expires)
46. Ozturk M, Telkes I, Jimenez-Shahed J, Viswanathan A, Tarakad A, Kumar S, Sheth SA, Ince NF. Randomized, double-blind assessment of LFP versus SUA guidance in STN-DBS lead implantation: a pilot study. *Front Neurosci* 2020 epub 14:611 [PubMed Free Full Text](#)
47. Patel M, Nilsson MH, Rehncrona S, Tjernström F, Magnusson M, Johansson R, Fransson PA. Effects of deep brain stimulation on postural control in Parkinson's disease. *Comput Biol Med* 2020 epub 122:103828 [PubMed](#)
48. Petrucci MN, Neuville RS, Afzal MF, Velisar A, Anidi CM, Anderson RW, Parker JE, O'Day JJ, Wilkins KB, Bronte-Stewart HM. Neural closed-loop deep brain stimulation for freezing of gait. *Brain Stimul* 2020 13(5):1320-1322 [PubMed Free Full Text](#)
49. Piano C, Bove F, Mulas D, Bentivoglio AR, Cioni B, Tufo T. Frameless stereotaxy in subthalamic deep brain stimulation: 3-year clinical outcome. *Neurol Sci* 2020 epub [PubMed Free Full Text](#)
50. Saluja S, Barbosa DAN, Parker JJ, Huang Y, Jensen MR, Ngo V, Santini VE, Pauly KB, Ghanouni P, McNab JA, Halpern CH. Case report on deep brain stimulation rescue after suboptimal MR-guided focused ultrasound thalamotomy for essential tremor: a tractography-based investigation. *Front Hum Neurosci* 2020 epub 14:191 [PubMed Free Full Text](#)
51. Sefton E, Iwasa SN, Morrison T, Naguib HE, Popovic MR, Morshead CM. Electric field application *in vivo* regulates neural precursor cell behaviour in the adult mammalian forebrain. *eNeuro* 2020 epub ENEURO.0273-20.2020 [PubMed Free Full Text](#)
52. Senemmar F, Hartmann CJ, Slotty PJ, Vesper J, Schnitzler A, Groiss SJ. Asleep surgery may improve the therapeutic window for deep brain stimulation of the subthalamic nucleus. *Neuromodulation* 2020 epub [PubMed Free Full Text](#)
53. Smith EE, Schüller T, Huys D, Baldermann JC, Andrade P, Allen JJ, Visser- Vandewalle V, Ullsperger M, Gruendler TOJ, Kuhn J. A brief demonstration of frontostriatal connectivity in OCD patients with intracranial electrodes. *Neuroimage* 2020 epub 220:117138 [PubMed](#)
54. Tandra S, Kandadai RM, Peddisetty RP, Babu KJ, Prabha TS, Jabeen SA, Meena AK, Borgohain R. The effect of dual tasking and deep brain stimulation frequency parameters on gait in advanced Parkinson's disease. *Ann Indian Acad Neurol* 2020 23(3):308-312 [PubMed Free Full Text](#)
55. Testo AA, Garnaat SL, Corse AK, McLaughlin N, Greenberg BD, Deckersbach T, Eskandar EN, Dougherty DD, Widge AS. A case of non-affective psychosis followed by extended response to non-stimulation in deep brain stimulation for obsessive- compulsive disorder. *Brain Stimul* 2020 13(5):1317-1319 [PubMed Free Full Text](#)
56. Tsuboi T, Cif L, Coubes P, Ostrem JL, Romero DA, Miyagi Y, Lozano AM, De Vloo P, Haq I, Meng F, Sharma N, Ozelius LJ, Wagle Shukla A, Cauraugh JH, Foote KD, Okun MS. Secondary worsening following DYT1 dystonia deep brain stimulation: a multi-country cohort. *Front Hum Neurosci* 2020 epub 14:242 [PubMed Free Full Text](#)
57. Wang S, Zhao M, Li T, Zhang C, Zhou J, Wang M, Wang X, Ma K, Luan G, Guan Y. Long-term efficacy and cognitive effects of bilateral hippocampal deep brain stimulation in patients with drug-resistant temporal lobe epilepsy. *Neurol Sci* 2020 epub [PubMed](#)
58. Wang Y, Zhang C, Zhang Y, Gong H, Li J, Jin H, Li D, Liu D, Sun B. Habenula deep brain stimulation for intractable schizophrenia: a pilot study. *Neurosurg Focus* 2020 49(1):E9 [PubMed Free Full Text](#)
59. Wiest C, Tinkhauser G, Pogosyan A, Bange M, Muthuraman M, Groppa S, Baig F, Mostofi A, Pereira EA, Tan H, Brown P, Torrecillos F. Local field potential activity dynamics in response to

deep brain stimulation of the subthalamic nucleus in Parkinson's disease. *Neurobiol Dis* 2020 epub 143:105019 [PubMed Free Full Text](#)

60. Willsey MS, Lu CW, Nason SR, Malaga KA, Lempka SF, Chestek CA, Patil PG. Distinct perceptive pathways selected with tonic and bursting patterns of thalamic stimulation. *Brain Stimul* 2020 epub [PubMed Free Full Text](#)
61. Winter L, Saryyeva A, Schwabe K, Heissler HE, Runge J, Alam M, Heitland I, Kahl KG, Krauss JK. Long-term deep brain stimulation in treatment-resistant obsessive-compulsive disorder: outcome and quality of life at four to eight years follow-up. *Neuromodulation* 2020 epub [PubMed Free Full Text](#)
62. Witek N, Heath SL, Ouyang B, Tanner CM, Galifianakis NB. Remote telemedicine evaluation of deep brain stimulation candidacy: retrospective cohort analysis. *Neurol Clin Pract* 2020 10(3):199-205 [PubMed](#)
63. Wu H, Adler S, Azagury DE, Bohon C, Safer DL, Barbosa DAN, Bhati MT, Williams NR, Dunn LB, Tass PA, Knutson BD, Yutsis M, Fraser A, Cunningham T, Richardson K, Skarpaas TL, Tcheng TK, Morrell MJ, Roberts LW, Malenka RC, Lock JD, Halpern CH. Brain-responsive neurostimulation for loss of control eating: early feasibility study. *Neurosurgery* 2020 epub nyaa300 [PubMed](#)

#### **DRG**

1. Grabnar M, Kim C. Dorsal root ganglion stimulation for treatment of chemotherapy-induced neuropathy: a case report. *Am J Phys Med Rehabil* 2020 epub [PubMed](#)
2. Martin SC, Macey AR, Raghu A, Edwards T, Watson C, Bojanić S, FitzGerald JJ, Green AL. Dorsal root ganglion stimulation for the treatment of chronic neuropathic knee pain. *World Neurosurg* 2020 epub [PubMed](#)
3. Soloukey S, de Rooij JD, Osterthun R, Drenthen J, De Zeeuw CI, Huygen FJPM, Harhangi BS. The dorsal root ganglion as a novel neuromodulatory target to evoke strong and reproducible motor responses in chronic motor complete spinal cord injury: a case series of five patients. *Neuromodulation* 2020 epub [PubMed Free Full Text](#)

#### **GES**

1. Kim SH, Kim HB, Chun HJ, Choi HS, Kim ES, Keum B, Seo YS, Jeon YT, Lee HS, Um SH, Kim CD. Minimally invasive gastric electrical stimulation using a newly developed wireless gastrostimulator: a pilot animal study. *J Neurogastroenterol Motil* 2020 26(3):410-416 [PubMed Free Full Text](#)
2. Wendorf G, Lahr C, Tang SJ, Shah A, Islam S, Abell T. Importance of endoscopy during permanent gastric stimulator placement. *VideoGIE* 2020 5(7):289-291 [PubMed Free Full Text](#)

#### **PNS**

1. Owada H, Sumitani M, Inoue R, Kawashima M, Ishii K, Shin M, Uchida K. Peripheral nerve field stimulation successfully manages axial pain after posterior cervical spine surgery: case report. *Ann Palliat Med* 2020 epub apm-20-978 [PubMed Free Full Text](#)

#### **SCS**

1. Chandrasekaran S, Nanivadekar AC, McKernan G, Helm ER, Boninger ML, Collinger JL, Gaunt RA, Fisher LE. Sensory restoration by epidural stimulation of the lateral spinal cord in upper-limb amputees. *Elife* 2020 9:e54349 [PubMed Free Full Text](#)
2. Eldabe S, Duarte RV, Gulve A, Thomson S, Baranidharan G, Houten R, Jowett S, Sandhu H, Chadwick R, Brookes M, Kansal A, Earle J, Bell J, Robinson J, Walker S, Rhodes S, Taylor RS. Does a screening trial for spinal cord stimulation in patients with chronic pain of neuropathic origin have clinical utility and cost-effectiveness (TRIAL-STIM)? A randomised controlled trial. *Pain* 2020

epub [PubMed](#) Free version accessed through PubMed.

3. Fan X, Bu H, Wen Y, Ma L, Huang C, Xu F, Wang T, Kong C, Zhou Y. Spinal cord stimulation in the treatment of pediatric erythromelalgia. *World Neurosurg* 2020 epub S1878-8750(20)31509-6 [PubMed](#)
4. Harman F, Aydın S, Sencan S, Akdeniz E, Guvenc Y, Saracoglu A, Eyigor C, Uyar M, Gunduz OH. Percutaneous spinal cord stimulation for failed back surgery syndrome: a retrospective study. *Turk Neurosurg* 2020 epub [PubMed Free Full Text](#)
5. Issabekov G, Zhu H. Spinal cord stimulation for treatment refractory stump pain following pelvic trauma hemi-corporectomy: case report. *Neuromodulation* 2020 23(5):713-715 [PubMed Full Text](#)
6. Kuwahara K, Sasaki T, Yasuhara T, Kameda M, Okazaki Y, Hosomoto K, Kin I, Okazaki M, Yabuno S, Kawauchi S, Tomita Y, Umakoshi M, Kin K, Morimoto J, Lee JY, Tajiri N, Borlongan CV, Date I. Long-term continuous cervical spinal cord stimulation exerts neuroprotective effects in experimental Parkinson's disease. *Front Aging Neurosci* 2020 epub 12:164 [PubMed Free Full Text](#)
7. Orhurhu V, Gao C, Agudile E, Monegro W, Urits I, Orhurhu MS, Olatoye D, Viswanath O, Hirji S, Jones M, Ngo A, Aiudi C, Simopoulos T, Gill J. Socioeconomic disparities in the utilization of spinal cord stimulator therapy in chronic pain patients. *Pain Pract* 2020 epub [PubMed](#)
8. Peña Pino I, Hoover C, Venkatesh S, Ahmadi A, Sturtevant D, Patrick N, Freeman D, Parr A, Samadani U, Balsler D, Krassioukov A, Phillips A, Netoff TI, Darrow D. Long-term spinal cord stimulation after chronic complete spinal cord injury enables volitional movement in the absence of stimulation. *Front Syst Neurosci* 2020 epub 14:35 [PubMed Free Full Text](#)
9. Pilitsis JG, Fahey M, Custozzo A, Chakravarthy K, Capobianco R. Composite score is a better reflection of patient response to chronic pain therapy compared with pain intensity alone. *Neuromodulation* 2020 epub [PubMed Full Text](#)
10. Remacle T, Mauviel S, Renwart HJ, Ghassempour K, Belle F, Lückers O, Bex V, Remacle JM, Bonhomme V. Long-term multicolumn-lead spinal cord stimulation efficacy in patients with failed back surgery syndrome: a six-year prospective follow-up study. *World Neurosurg* 2020 epub S1878-8750(20)31449-2 [PubMed](#)
11. Samotus O, Parrent A, Jog M. Spinal cord stimulation therapy for gait dysfunction in two corticobasal syndrome patients. *Can J Neurol Sci* 2020 epub 1-9 [PubMed](#)
12. Sayed D, Foster J, Nairizi A, Sills S, Miller A. 10 kHz high-frequency spinal cord stimulation for chronic thoracic pain: a multicenter case series and a guide for optimal anatomic lead placement. *Pain Physician* 2020 23(4):E369-E376 [PubMed Free Full Text](#)
13. Sayed D, Salmon J, Khan TW, Sack AM, Braun T, Barnard A, Rotte A. Retrospective analysis of real-world outcomes of 10 kHz SCS in patients with upper limb and neck pain. *J Pain Res* 2020 13:1441-1448 [PubMed Free Full Text](#)
14. Shahrदार C, Smidt KP. Hip arthroplasty instability after implantation of a spinal cord stimulator. *J Am Acad Orthop Surg Glob Res Rev* 2020 4(7):e2000004 [PubMed Free Full Text](#)
15. Shumsky PM, Wie CS, Freeman JA, Viswanath O, Patel NP. Images in practice: replacement of an 18-year-old spinal cord stimulator paddle lead with cylindrical leads under direct visualization. *Pain Ther* 2020 epub [PubMed Free Full Text](#)
16. Tang S, Cuellar CA, Song P, Islam R, Huang C, Wen H, Knudsen BE, Gong P, Lok UW, Chen S, Lavrov IA. Changes in spinal cord hemodynamics reflect modulation of spinal network with different parameters of epidural stimulation: spinal cord hemodynamics response to epidural stimulation. *Neuroimage* 2020 epub 117183 [PubMed Free Full Text](#)
17. Tate JL, Stauss T, Li S, Rotte A, Subbaroyan J. A prospective, multi-center, clinical trial of 10 kHz spinal cord stimulation system in the treatment of chronic pelvic pain. *Pain Pract* 2020 epub [PubMed](#)
18. Verrills P, Salmon J, Russo M, Gliner B, Barnard A, Caraway D. 10 kHz spinal cord stimulation for chronic upper limb and neck pain: Australian experience. *Eur Spine J* 2020 epub [PubMed](#)

## SNS

1. Almutairi S. A cadaveric study on the efficacy of surface marking and bony landmarks used in sacral neuromodulation. *Cureus* 2020 12(7):e9153 [PubMed](#) [Free Full Text](#)
2. Almutairi S. Sacral neuromodulation in a patient with Wolff-Parkinson-White syndrome: a case report. *Res Rep Urol* 2020 12:193-197 [PubMed](#) [Free Full Text](#)
3. Assmann R, Breukink SO, Caubergh SAP, Stassen LPS, van Kuijk SMJ, Melenhorst J. The effect of the number of active electrode poles during timed lead placement on long-term efficacy of sacral neuromodulation in patients with faecal incontinence. *Colorectal Dis* 2020 epub [PubMed](#) [Free Full Text](#)
4. Chen G, Liao L, Wang Y, Ying X. Effect of sacral neuromodulation on bowel dysfunction in neurogenic bladder patients. *Colorectal Dis* 2020 epub [PubMed](#)
5. Fassov J, Liao D, Brock C, Lundby L, Laurberg S, Krogh K. Sacral nerve modulation has no effect on the postprandial response in irritable bowel syndrome. *Clin Exp Gastroenterol* 2020 13:235-244 [PubMed](#) [Free Full Text](#)
6. Greenberg DR, Sohlberg EM, Zhang CA, Santini VE, Comiter CV, Enemchukwu EA. Sacral nerve stimulation in Parkinson's disease patients with overactive bladder symptoms. *Urology* 2020 epub [PubMed](#)
7. Kaaki B, Gupta D. Medium-term outcomes of sacral neuromodulation in patients with refractory overactive bladder: a retrospective single-institution study. *PLOS One* 2020 15(7):e0235961 [PubMed](#) [Free Full Text](#)
8. Meng LF, Zhang W, Wang JY, Zhang YG, Zhang P, Liao LM, Lv JW, Ling Q, Wei ZQ, Zhong T, Xu ZH, Wen W, Li JY, Luo DY. Clinical outcomes of sacral neuromodulation in non-neurogenic, non-obstructive dysuria: a 5-year retrospective, multicentre study in China. *World J Clin Cases* 2020 8(12):2494-2501 [PubMed](#) [Free Full Text](#)
9. Morgan TN, Pace N, Mohapatra A, Ren D, Kunkel G, Tennyson L, Shepherd JP, Chermansky CJ. Sacral neuromodulation: determining predictors of success. *Urology* 2020 epub [PubMed](#)
10. Rubio-Perez I, Saavedra J, Marijuan JL, Pascual-Miguelañez I. Optimizing sacral neuromodulation for low anterior resection syndrome: learning from our experience. *Colorectal Dis* 2020 epub [PubMed](#)
11. Tilborghs S, Van de Borne S, Vaganée D, De Win G, De Wachter S. A supervised three weeks test phase in sacral neuromodulation with a one-year follow-up. *J Urol* 2020 epub [PubMed](#)
12. Zhu Y, Cheng J, Yin J, Yang Y, Guo J, Zhang W, Xie B, Lu H, Hao D. Effects of sacral nerve electrical stimulation on 5-HT and 5-HT<sub>3A</sub>R/5-HT<sub>4</sub>R levels in the colon and sacral cord of acute spinal cord injury rat models. *Mol Med Rep* 2020 22(2):763-773 [PubMed](#) [Free Full Text](#)

## Most clicked links from the July newsletter

1. Anderson RW, Kehnemouyi YM, Neuville RS, Wilkins KB, Anidi CM, Petrucci MN, Parker JE, Velisar A, Bronte-Stewart H. A novel method for calculating beta band burst durations in Parkinson's disease using a physiological baseline. *J Neurosci Methods* 2020 epub 108811 [PubMed](#) [Free Full Text](#)
2. Barcelos LB, Marinho MM, Barcellos I, Silva CCD, Silva SMA, Centeno RS, Borges V, Ferraz HB. Improvement of post-hypoxic cerebellar tremor with bilateral thalamic deep brain stimulation: a case report and review of the literature. *Clin Neurol Neurosurg* 2020 epub 195:105879 [PubMed](#)
3. Bogdan ID, Laar TV, Oterdoom DLM, Drost G, van Dijk JMC, Beudel M. Optimal parameters of deep brain stimulation in essential tremor: a meta-analysis and novel programming strategy. *J Clin Med* 2020 9(6):E1855 [PubMed](#) [Free Full Text](#)
4. Andrews JC, Roy FD, Stein RB, Ba F, Sankar T. Effects of deep brain stimulation and dopaminergic medication on excitatory and inhibitory spinal pathways in Parkinson disease. *J Clin Neurophysiol*



- 2020 epub [PubMed](#)
5. Brown EC, Clark DL, Forkert ND, Molnar CP, Kiss ZHT, Ramasubbu R. Metabolic activity in subcallosal cingulate predicts response to deep brain stimulation for depression. *Neuropsychopharmacology* 2020 epub [PubMed](#)
  6. Deng H, Yue JK, Wang DD. Trends in safety and cost of deep brain stimulation for treatment of movement disorders in the United States: 2002-2014. *Br J Neurosurg* 2020 epub 1-8 [PubMed](#)
  7. Davidson B, Giacobbe P, Mithani K, Levitt A, Rabin JS, Lipsman N, Hamani C. Lack of clinical response to deep brain stimulation of the medial forebrain bundle in depression. *Brain Stimul* 2020 13(5):1268-1270 [PubMed](#) [Free Full Text](#)
  8. Fomenko A, Lee DJ, McKinnon C, Lee EJ, de Snoo ML, Gondard E, Neudorfer C, Hamani C, Lozano AM, Kalia LV, Kalia SK. Deep brain stimulation of the medial septal nucleus induces expression of a virally delivered reporter gene in dentate gyrus. *Front Neurosci* 2020 epub 14:463 [PubMed](#) [Free Full Text](#)
  9. Ball TJ, John KD, Donovan AM, Neimat JS. Deep brain stimulation lead implantation using a customized rapidly manufactured stereotactic fixture with submillimetric euclidean accuracy. *Stereotact Funct Neurosurg* 2020 epub 1-8 [PubMed](#)
  10. Shah RV, Kaye AD, Urman RD. Emerging concepts in the closed-loop spinal cord stimulation system: preliminary results of the Avalon study. *Ann Palliat Med* 2020 epub [PubMed](#) [Free Full Text](#)

## **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 25<sup>th</sup> 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 2019-20**

- Thomas Abell, MD
- Richard B. North, MD
- Konstantin Slavin, MD, PhD

### **Industry support 2019-20**

- Medtronic

### **Nonprofit support**

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

## **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 Linderoth, 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