NEWSLETTER #142 August 2025 See ABOUT WIKISTIM

Insights from WIKISTIM's Spinal Cord Stimulation Meta-Analysis Section

As we reported in June, we have substantially expanded our new spinal cord stimulation (SCS) meta-analysis (MA) section, and we are working on methods of visualization and systematic review. Viewed in a spreadsheet, the data show immediately that the annual rate of new MA publications has increased more than ten-fold in recent years, and that this rate continues: our database now contains 58 SCS MAs, up from 47 when we launched in December 2024. The design of underlying primary studies has been changing (e.g., comparisons of novel with conventional SCS waveforms, as opposed to alternative medical and surgical treatments; use of sham or placebo controls). Likewise, MA methodologies are increasingly sophisticated (viz., network MAs). Compliance with AMSTAR criteria for quality is increasing over time.

Our expansion is thanks to our volunteer abstracters, whom we are proud to introduce here:

Mahtab Darvish, MD, is a board-certified physical medicine & rehabilitation (PM&R) specialist who completed residency training in Iran and continued her training in PM&R at the University of Michigan and the University of Maryland. She is now part of the Emory UniversitymSchool of Medicine. Dr. Darvish’s clinical and research interests focus on interventional and chronic pain management, neuromodulation, and the integration of emerging technologies, such as artificial intelligence and extended reality, into rehabilitation care. She is passionate about advancing innovative, patient-centered strategies to better manage pain and improve functional outcomes.

Sujeivan Mahendram, MD, MsC, is a board-certified anesthesiologist who completed training at Wayne State University followed by a fellowship in chronic/interventional pain medicine at Johns Hopkins University. Currently, Dr. Mahendram's interests lie in exploring new techniques to manage chronic pain using various imaging modalities, as well as a particular focus in neuromodulation and medical education.

Please Make a Donation This Month

We need your help to secure the future of WIKISTIM. Please ask yourself what you would pay for an annual subscription to this email and access to our website and donate accordingly. Again, we thank all of our donors.

Donate Now

WIKISTIM Now Has 1927 Subscribers and Lists 15,967 Citations!

Thank you for telling your colleagues about our free resource.

Citations Added From Search on August 8, 2025

This month, we noticed that more free full-text links from publishers' sites than usual led to an immediate download. In these cases, our Free Full Text links will take you to the publisher's page leading to the PDF. We also do this in cases where the URL has a “watermark” or is ridiculously long.

Please remember to click “View Entire Message" in our email to see all of the citation lists in this newsletter.

We list correction citations only if the error was substantial. For small changes, such as a missing initial in an author's name, we simply update the WIKISTIM database.

Deep Brain Stimulation (now 9195 citations)

1. Ambreen Y, Brandon C, Jordan Z, Dalm B. **Rescue globus pallidus deep brain stimulation following refractory dystonia treated with subthalamic nucleus deep brain stimulation: illustrative case.** J Neurosurg Case Lessons 2025 10(4):CASE24886 PubMed Free Full Text
2. Bendetowicz D, Temiz G, Tempier N, Hainque E, Welter ML, Czernecki V, Lau B, Karachi C, Munuera J. **Influence of deep brain stimulation and dopaminergic therapy on intrinsic preference for free choice in patients with Parkinson's disease.** Biol Psychiatry Cogn Neurosci Neuroimaging 2025 epub PubMed Free Full Text
3. Bhargav AG, Lundy PA, Coffman KA, Kaufman CB. **Simultaneous, dual-target, bilateral deep brain stimulation for treatment of galactosemia-induced dystonia and tremor in a pediatric patient.** Childs Nerv Syst 2025 41(1):255 PubMed
4. Byun SH, Yeo J, Lee SH. **The potential advantages of remimazolam for awakening in deep brain stimulation surgery: a retrospective analysis of cases.** J Clin Med 2025 14(13):4724 PubMed Free Full Text
5. Cernera S, Shcherbakova M, Hammer LH, Friedrich M, Peach R, Ip CW, Bledsoe I, Little S, Starr PA. **Oscillatory dynamics in isolated dystonia: five hundred hours of chronic invasive multisite motor network recordings.** J Neurophysiol 2025 epub PubMed Free Full Text
6. Chang R, Reid B, McGeoch P, Lusk Z, Graber K, Fisher R, Parvizi J, Buch V. **Targeted multinodal thalamic deep brain stimulation for epilepsy: a retrospective case series.** Epileptic Disord 2025 epub PubMed
7. Dahodwala N, Kapogiannis T, Cruz A, Beck JC, Davis TL, Liu H, Luo S, Naito A, Neault M, Rafferty MR, Ramirez-Zamora A, Marras C. **Longitudinal study of treatment variability for Parkinson's disease across specialized centers.** Mov Disord Clin Pract 2025 epub PubMed Free Full Text
8. de Laurentis C, Thobois S, Danaila T, Laurencin C, Polo G, Prange S, Simon E. **A comparison of electrophysiological microrecording versus automatic MR-based segmentation to determine subthalamic nucleus boundaries.** Acta Neurochir (Wien) 2025 167(1):199 PubMed Free Full Text
9. Dos Santos VB, Ravazio R, Teixeira-Dos-Santos D, Schumacher Schuh AF, Mattjie C, Pasquali JM, de Borba MD, Barros RC, Olchik MR. **Speech subtypes are associated with worsened tremor and axial symptoms in Parkinson's disease patients.** Clin Park Relat Disord 2025 13:100373 PubMed Free Full Text
10. Ducrocq H, Puisieux S, Hopes L, Frismand S, Colnat-Coulbois S, Kyheng M, Rolland AS, Moreau C, Giordana C, Danaila T, Maltête D, Fabbri M, Benatru I, Marques A, Boukbiza OL, Hubsch-Bonneaud C, Rouaud T, Eusebio A, Drapier S, Hainque E, Tir M, Jarraya B, Corvol JC, Devos D; PREDISTISM study group. **Non-motor subtypes in candidates for subthalamic deep brain**

stimulation for Parkinson's disease. Parkinsonism Relat Disord 2025 138:107945 PubMed Free Full Text
11. Falciglia S, Caffi L, Baiata C, Palmisano C, Isaias IU, Mazzoni A. **Transformer-based long-term predictor of subthalamic beta activity in Parkinson's disease.** NPJ Parkinsons Dis 2025 11(1):210 PubMed Free Full Text
12. Ferriero G, Magro VM, Ferrara PE, Ariani M, Coraci D, Codazza S, Maggi L, Ronconi G. **Deep-brain stimulation and intensive rehabilitation in a patient with Parkinson disease: a case report.** Am J Case Rep 2025 e946308 PubMed Free Full Text
13. Franz D, Kragelund FS, Heerdegen M, Perl S, Lüttig A, Plocksties FV, Bathel H, Richter A, Köhling R. **Network-wide modulation of synaptic plasticity and spike patterns in motor circuits after pallidal deep brain stimulation in a dystonia model.** Neurobiol Dis 2025 214:107037 PubMed Free Full Text
14. Fridgeirsson EA, Bergfeld I, de Kwaasteniet BP, Luigjes J, van Laarhoven J, Notten P, Beute G, van den Munckhof P, Schuurman R, Denys D, van Wingen G. **Deep brain stimulation modulates directional limbic connectivity in major depressive disorder.** Psychol Med 2025 55:e231 PubMed Free Full Text
15. García-Agua Soler N, García Trujillo L, García-Ruiz AJ. **Cost of quality of life in advanced Parkinson's disease: efficient strategies for disease assessment.** Rev Neurol 2025 80(6):33482 PubMed Free Full Text
16. Hon K, Warman P, Venkatraman V, Suarez AD, Kelly-Hendrick M, Teshome S, Dharmapurikar R, Haglund MM, Lad SP. **A competency-based approach to functional neurosurgery training: insights from the surgical autonomy program.**Neuromodulation 2025 epub PubMed
17. Jo S, Choi M, Lee J, Lee S, Heo H, Suh CH, Shim WH, Kim J, Jeon SR, Lee H, Chung SJ. **Connectivity-based analysis of stimulation effects of globus pallidus interna deep brain stimulation in Parkinson's disease: a focus on freezing of gait.** J Mov Disord 2025 epub PubMed Free Full Text
18. Justich MB, Boogers A, Lozano AM, Fasano A. **Fixing a shaky video to remotely program deep brain stimulation.** Tremor Other Hyperkinet Mov (NY) 2025 15:33 PubMed Free Full Text
19. Kamo H, Eisel MLS, Cagle JN, Johnson KA, Wong J, de Hemptinne C. **Finely tuned gamma oscillations in the globus pallidus internus in Parkinson's disease.** Mov Disord Clin Pract 2025 epub PubMed Free Full Text
20. Kasiri M, Vidmark J, Hernandez-Martin E, Seyyed Mousavi SA, Sanger TD. **Deep brain stimulation in globus pallidus internus travels to thalamus and subthalamic nuclei along physiological pathways.** Front Neurosci 2025 19:1592689 PubMedFree Full Text
21. Kim S, Jung S, Lee S, Joo EY, Seo DW, Shon YM. **Cognitive outcomes after deep brain stimulation in drug-resistant epilepsy: a comparison of anterior thalamic and hippocampal stimulation.** Epilepsia Open 2025 epub PubMed Free Full Text
22. Litwa E, Bartosz-Nowakowska A, Bobula B, Gruca P, Lason M, Biala D, Tokarski K, Hess G, Papp M. **Efficacy of venlafaxine and deep brain**

stimulation against the effects of hippocampal lesion with ibotenic acid in animals exposed to the chronic mild stress model of depression. Curr Neuropharmacol 2025 epub PubMedFree Full Text
23. Lüttig A, Perl S, Franz D, Kotyra M, Morawski M, Köhling R, Richter A. **Expression of the extracellular matrix component brevican prior and after deep brain stimulation in the dt^{sz} hamster model of dystonia.** Brain Res Bull 2025 230:111486 PubMed Free Full Text
24. Mahale RR, Padmanabha H. ***VPS16*-associated dystonia: a cohort-based clinical, imaging and genetic profile.** Tremor Other Hyperkinet Mov (NY) 2025 15:30 PubMedFree Full Text
25. Masoumi S, Sheft M, Quémener M, Bédard A, Noël VP, Parent M, Villiger M, Côté DC. **Catheter-based polarimetric imaging to complement MRI for deep brain stimulation neurosurgery.** Neurophotonics 2025 12(3):035001 PubMed Free Full Text
26. Matin R, Zhang K, Gouveia FV, Ibrahim GM. **Effects of centromedian thalamic deep brain stimulation on striatal glutamate and GABA in a rodent model of epilepsy.**Exp Neurol 2025 393:115394 PubMed
27. Miller Koop M, Rosenfeldt AB, Scelina K, Scelina L, Waltz C, Bazyk AS, Berki V, Baker K, Reyes Torres JN, Kuvliev E, Nagel S, Walter BL, Liao J, Escobar D, Baker KB, Alberts JL. **An experimental approach for investigating freezing of gait in Parkinson's disease using virtual reality and neural sensing: a pilot study.**Sensors (Basel) 2025 25(13):4036 PubMed Free Full Text
28. Morris AE, Adeyemo B, Campbell MC, Snyder AZ, Perlmutter JS, Mink JW, Norris SA. **Thalamic and visual network dysfunction relates to tremor response in thalamic deep brain stimulation**. Tremor Other Hyperkinet Mov (NY) 2025 15:34 PubMed Free Full Text
29. Murin PJ, Prabhune AS, Martins YC. **Optimizing multivariable logistic regression for identifying perioperative risk factors for deep brain stimulator explantation: a pilot study.** Clin Pract 2025 15(7):132 PubMed Free Full Text
30. Nonaka T, Asahi T, Horisawa S, Ikeda K, Yamamoto N, Taira T. **Successful treatment with posterior subthalamic area-deep brain stimulation in a patient with tremor and extensive brain lesion.** J Mov Disord 2025 epub PubMed Free Full Text
31. Onder H, Comoglu S. **Comparison of levodopa response rate in association with clinical features in Parkinson's disease subjects with and without STN-DBS.**Neurol Res 2025 epub 1-10 PubMed
32. Papp AK, Berki ÁJ, Vinnai P, Ajtay A, Bereczki D, Erőss L, Tamás G. **Prevalence estimation of essential tremor in Hungary between 2010 and 2020 based on the National Health Insurance Fund Database.** Sci Rep 2025 15(1):28560 PubMed Free Full Text
33. Piwowarski K, Sobstyl M, Karamon K. **Damage to the entire deep brain stimulation system after the standard replacement of an implantable pulse generator, probably due to self-injurious behavior in a patient with**

advanced Parkinson's disease. Postep Psychiatr Neurol 2025 34(2):124-129 PubMed Free Full Text
34. Polli JG, Kolbl F, da Luz MGE, Lanusse P. **Delay suppression control of β-oscillations: a proposal for dual-target adaptive deep brain stimulation on STN-GPe network model.** Biol Cybern 2025 119(4-6):21 PubMed
35. Roy FD, Afsharipour B, King A, Waldron M, Ba F, Shetty A, Sankar T. **Characterization of subthalamic nucleus boundary and trajectory recommendations from a commercially available microelectrode recording algorithm during deep brain stimulation surgery for Parkinson disease.** Oper Neurosurg 2025 epub PubMed
36. Sachithanandan S, Pisharody K, Vijayaraghavan A, Dasarathan LV, Puthenveedu DK, Krishnan S. **Hereditary spastic paraplegia type 7 with early-onset parkinsonism responsive to subthalamic deep brain stimulation.** Ann Indian Acad Neurol 2025 epub PubMed Free Full Text
37. Santos-García D, Solleiro Á, González-Ortega G, Mir P, López-Ariztegui N, García Ramos R, Legarda I, Planas-Ballvé A, Alonso-Modino D, Sánchez-Alonso P, Cabo I, Blázquez-Estrada M, Sánchez-Ferro Á; DATs-PD GETM Spanish Registry Group. **Profile of people with Parkinson's disease treated with a device-aided therapy in Spain. A comparative multicenter observational study.** Mov Disord Clin Pract 2025 epub PubMed
38. Santyr B, Boutet A, Abbass M, Vetkas A, Germann J, Ajala A, Qiu J, Elias GJB, Sarica C, Yang AZ, Alhashyan I, Kalia SK, Fasano A, Lozano AM. **Functional network differences between unilateral and bilateral deep brain stimulation of the subthalamic nucleus.** NPJ Parkinsons Dis 2025 11(1):215 PubMed Free Full Text
39. Sarno M, Harcourt S, Bure-Reyes A, Jagid J, Luca C, Levin B, Haq I. **The impact of mild-to-moderate cortical cognitive deficits on post-operative outcomes in deep brain stimulation for Parkinson's disease: considerations for patient selection.**Clin Park Relat Disord 2025 13:100361 PubMed Free Full Text
40. Scharfenort M, Hernström V, Rosqvist K, Ljung H, Nilsson MH, Odin P. **Personality trait changes after device-aided therapy: insights from Parkinson's patients and their close relatives.** Parkinsons Dis 2025 2025:6681692 PubMed Free Full Text
41. Scheitler KM, Rojas-Cabrera JM, Vettleson-Trutza SA, Tsai ST, Pons-Monnier GK, El-Gohary MM, Scheer R, Kwak Y, Barone DG, Blaha CD, Oesterle TS, Shin H, Lee KH, Oh Y. **Application of a human stereotactic system for image-guided deep brain stimulation neurosurgery in a swine model.** Brain Stimul 2025 epub PubMed Free Full Text
42. Sciscenti F, Agostini V, Rizzi L, Lanotte M, Ghislieri M. **ML-STIM: machine learning for subthalamic nucleus intraoperative mapping.** J Neural Eng 2025 epub PubMedFree Full Text
43. Slobodin N, Anderson O, Dullur P, Escobar Sanabria D, Mandava N, Singh A, Toth C, Machado AG, Baker K. **Timing- and frequency-specific effects of dentate nucleus deep brain stimulation on somatosensory-evoked**

potentials in people with poststroke hemiparesis. J Neurophysiol 2025 134(2):559-567 PubMed Free Full Text
44. Spagnolo D, Perbellini B, Papagno C, Malaguti MC, Longo C, Bacchin R, Sarubbo S, Corsini F, Bonfiglioli C. **Exploring gendered experiences of Parkinson's disease patients and their carers: implications for decision-making in deep brain stimulation.** Intern Emerg Med 2025 epub PubMed
45. Stam MJ, van Wijk BCM, Buijink AWG, Piña-Fuentes D, de Bie RMA, Schuurman R, Beudel M. **Long-term consistency of aperiodic and periodic physiomarkers in subthalamic local field potentials in Parkinson's disease.** NPJ Parkinsons Dis 2025 11(1):204 PubMed Free Full Text
46. Steina A, Sure S, Butz M, Vesper J, Schnitzler A, Hirschmann J. **Modulations of thalamo-cortical coupling during voluntary movement in patients with essential tremor.** Neuroimage Clin 2025 48:103848 PubMed Free Full Text
47. Tan B, Chen T, Guo P, Song P, Lin F, He S, Sun S, Wang X, He J, Yin X. **DBS-STN&SNr combined stimulation versus DBS-STN monotarget stimulation for Parkinson's disease freezing: a comparative efficacy study.** J Parkinsons Dis 2025 epub PubMed Free Full Text
48. Tufa U, Dian JA, Zahra A, Wu C, Zhang L, Carlen PL, Bardakjian BL. **Delta-fast ripple coupling suppression: designing a brain-mimetic stimulation paradigm for seizure abolishment.** Front Neurosci 2025 19:1619278 PubMed Free Full Text
49. Umemura A, Mizuno H, Maki M, Masago A. **Image-guided optimization of current steering in STN-DBS for Parkinson's disease.** Front Neurol 2025 16:1618480 PubMed Free Full Text
50. Unadkat P, Vo A, Ma Y, Tang CC, Dhawan V, Niethammer M, Nguyen N, Peng S, Mishra A, Ramdhani R, Fenoy A, Caminiti SP, Perani D, Eidelberg D. **Preoperative network activity predicts the response to subthalamic DBS for Parkinson's disease.** Neurotherapeutics 2025 e00699 PubMed Free Full Text
51. Villa-Villegas L, Lira-Jaime LG, Farías-Moreno KC, González-Ruffino BD, Soto-Escageda A, Mercado-Pimentel R, Piña-Avilés CE, Zúñiga-Ramírez C. **Deep brain stimulation in Leigh-like syndrome due to DNM1 pathogenic variant.** Tremor Other Hyperkinet Mov (NY) 2025 15:32 PubMed Free Full Text
52. Wang S, Hu W, Gao Y, Wang A, Chen L, Liang Z, Zhang S, Long H, Li W, Niu C, Liu W, Cai G, Ji Y, Tam J, Xu Q, Yang A, Shi L, Zhang H, Han C, Zhu G, Bai Y, Jiang L, Li T, Xue S, Wang H, Li Y, Xiong C, Lozano AM, Ramirez-Zamora A, Zhang W, Meng F, Zhang J; DBS-PDCC2 Collaboration. **Deep brain stimulation surgical timing, outcomes, and prognostic factors in patients with Parkinson's disease: a Chinese retrospective multicenter cohort study.** PLOS Med 2025 22(8):e1004670 PubMed Free Full Text
53. Warren AEL, Raguž M, Friedrich H, Schaper FLWVJ, Tasserie J, Snider SB, Li J, Chua MMJ, Butenko K, Friedrich MU, Jha R, Iglesias JE, Carney PW, Fischer D, Fox MD, Boes AD, Edlow BL, Horn A, Chudy D, Rolston JD. **A human brain network linked to restoration of consciousness after deep brain stimulation.** Nat Commun 2025 16(1):6721 PubMed Free Full Text

54. Wasilewski D, Hoffmann AM, Braun F, Bozkurt SG, Mertens R, Ferdowssian K, Truckenmüller P, Schneider GH, Faust K, Vajkoczy P, Prinz V, Kühn AA, Krause P, Spindler P. **The risk of bacterial colonization increases with multiple replacements of implanted pulse generators for deep brain stimulation.** Neuromodulation 2025 epub PubMed Free Full Text
55. Wilkins KB, Petrucci MN, Lambert EF, Melbourne JA, Gala AS, Akella P, Parisi L, Cui C, Kehnemouyi YM, Hoffman SL, Aditham S, Diep C, Dorris HJ, Parker JE, Herron JA, Bronte-Stewart HM. **Beta burst-driven adaptive deep brain stimulation for gait impairment and freezing of gait in Parkinson's disease.** Brain Commun 2025 7(4):fcaf266 PubMed Free Full Text
56. Xie H, Bai Y, Zhuang Y, Huang J, Wu D, Zhang X, Shi L, Zhang H, Li J, Fu J, Yang A, Meng F, Zhang Q, Jiang Y, Zhang J. **Theta-frequency subthalamic stimulation enhances conflict resolution in Parkinson's disease patients with freezing of gait through frontal cortex modulation.** NPJ Parkinsons Dis 2025 11(1):206 PubMedFree Full Text

Dorsal Root Ganglion Stimulation (now 309 citations)

1. Chapman KB, Yousef TA, Liabaud B, Yusufov S, van Helmond N, Vissers KC. **Exploring the influence of dorsal root ganglion stimulation on sleep behavior in patients with chronic pain.** Neuromodulation 2025 epub PubMed Free Full Text
2. Sen H, Cooper A, Conger A, McCormick ZL, Przybysz AG. **Dorsal root ganglion stimulation for multifactorial refractory foot pain: a case report.** Interv Pain Med 2025 4(3):100614 PubMed Free Full Text

Gastric Electrical Stimulation (now 533 citations)

1. Sarosiek I, Bashashati M, Gonzalez Z, Bright T, Espinosa K, Forster J, Aguirre K, Sarosiek J, Diaz J, Padilla O, Davis B, McCallum R. **EXPRESS: the long-term outcomes of combining pyloroplasty with gastric electrical stimulation in drug-refractory gastroparesis: a prospective single-arm trial.** J Investig Med 2025 epub PubMed

Meta-Analysis (still 58 citations)

Peripheral Nerve Stimulation (now 936 citations)

1. D'Souza RS, Yu Y, Singh V, Karri J, Javed S, Her YF, Chai N, Hoffmann C, Warner DO, Hussain N. **To trial or not to trial before peripheral nerve stimulation for chronic pain: a retrospective multicenter comparative analysis of temporary-to-permanent and direct-to-permanent implantation approaches.** Reg Anesth Pain Med 2025 epub rapm-2025-106734 PubMed Free Full Text

2. Debenham MIB, Roussel O, McNeil CJ, Berger MJ, Dalton BH. **Comparing motor unit number estimation techniques.** J Electromyogr Kinesiol 2025 84:103030 PubMedFree Full Text
3. DeLisio K, Miller J, Sweet J. **Long-term pain control and reduced opioid use through novel selection criteria for peripheral nerve and motor cortex stimulation.** J Neurosurg 2025 epub 1-8 PubMed Free Full Text
4. Fernández-Corazza M, Reina MA, Muñoz V, Berjano E, Boezaart AP, Ribes Llario C. **Computer modeling of the influence of surrounding tissues on electrical current delivered to the median nerve during neuromodulation for pain relief.**Neuromodulation 2025 epub PubMed
5. Samiee R, Jameie M, Rahmati M, Looha MA, Mobader S, Tafakhori A, Sarraf P, Amirifard H, Burachaloo SR, Ghabaee M, Amanollahi M, Tajabadi Z, Harirchian MH. **Short-term efficacy of peripheral nerve stimulation for essential tremor in a randomized double-blind controlled trial.** Sci Rep 2025 15(1):28713 PubMed Free Full Text
6. Sordet J, Martin A, Lapole T, Amiridis I, Quenot JP, Papaiordanidou M. **Is the degree of postactivation depression similar between soleus responses evoked by transcutaneous spinal cord and peripheral nerve stimulation?** J Neurophysiol 2025 134(2):529-542 PubMed Free Full Text
7. Wang J, Halling B, Hult D, Gupta M, Beutel BG. **Suprascapular nerve anatomy and its implication for approaches to peripheral nerve stimulation of its sensory branching: a morphometric cadaveric study.** Surg Radiol Anat 2025 47(1):181 PubMed

Sacral Nerve Stimulation (now 1319 citations)

1. Averbeck MA, Hinnah C, de Freitas FF, da Silva ACM, Kowalski A. **First report on the use of Loop-X image acquisition technology for sacral neuromodulation.** Int Braz J Urol 2025 51(6):e20259913 PubMed Free Full Text
2. Brown AE, Lambie C, Choudry MM, Durant AM, Lu PG, Rappaport DE. **Rectal perforation due to Interstim® sacral neuromodulation device lead migration.** J Emerg Med 2025 76:60-63 PubMed
3. Costa C, Barba M, De Vicari D, Cola A, Frigerio M. **Outcomes of sling removal in women with chronic voiding dysfunction: a retrospective observational study.**Healthcare (Basel) 2025 13(13):1517 PubMed Free Full Text
4. Halani PK, Wilson L, Cadish LA, Routh JC, Anger J. **Impact of social determinants of health on fecal incontinence treatment in older women.** Am J Obstet Gynecol 2025 epub PubMed
5. Han J, Hanzlicek B, Cabal D, Hacohen Y, Rietsch A, Gunzler D, Majerus SJA, Damaser MS, Bourbeau DJ. **The effect of high frequency sacral nerve stimulation on lower urinary tract function in awake, healthy animals.** Sci Rep 2025 15(1):24673 PubMed Free Full Text

6. Pham CT, Parkin CJ, Kovacic J, Yeow S, Yang Y, Delaney D, Chung A. **Sacral neuromodulation in patients with neurogenic lower urinary tract dysfunction.**Curr Urol 2025 19(4):280-285 PubMed Free Full Text
7. Shenhar C, Goldman HB, Slopnick E, Jones MK, Gill B, Zillioux J. **Sacral neuromodulation for overactive bladder in the aging population: does cognitive impairment impact outcomes? A prospective clinical trial.** J Urol 2025 epub PubMed
8. Sun H, Zhou Y, Liu Q, Li X, Liao L. **Changes in brain activity and functional connectivity during spinal nerve stimulation in a rat model of overactive bladder.**Int Neurourol J 2025 29(2):81-91 PubMed Free Full Text

Spinal Cord Stimulation (now 3617 citations)

1. Asp AJ, Jahanian O, Gill ML, Veith DD, Fernandez KA, Mills CJ, Thoreson AR, Larson CM, Sagen JA, Grahn PJ, Zhao KD, Tobin WO. **Percutaneous epidural spinal cord stimulation immediately reduces clonus in an individual with multiple sclerosis.**Mult Scler 2025 epub PubMed
2. Bharmauria V, Oya H, Bezchlibnyk Y, Shaheen N, Ghaderi A, Johari K, Singh A, Green AL, Kawasaki H, Sarica C, Dalm B, Lozano AM, Howard MA 3rd, Flouty O. **Neurophysiological effects of high-frequency spinal cord stimulation on cortico-sensory areas in large ovine animal model.** J Pain 2025 34:105493 PubMed
3. Brucker-Hahn MK, Deshmukh A, Settell M, Chin J, Upadhye A, Lavrov I, Shoffstall AJ, Ludwig KA, Zhang M, Lempka SF. **Anatomical data driven modeling of evoked compound action potentials recordings during spinal cord stimulation in a swine model.** Neuromodulation 2025 epub PubMed Free Full Text
4. Cecchini S, Konings MK, Rijsdijk M, van Wijck AJ, Bleys RL, Huygen FJ, Jaspers JE. **New method for neuromodulation against pain using minimally invasive electrodes outside the epidural space.** Sci Rep 2025 15(1):26131 PubMed Free Full Text
5. Cedeño DL, Vallejo R, Platt DC, Williams JM, Litvak LM, Dinsmoor DA, Siorek M. **Evolution of spinal evoked compound action potential thresholds, visual motor thresholds, and impedances in a rodent spared nerve injury model.** Front Neurosci 2025 19:1577059 PubMed Free Full Text
6. Chan HA, Kapoor B, Rai Y, Karatu F, Jalilian F, Hanlon J, Bhatia A, Sussman D, Diep C, Ladha KS, Goel A. **Spinal cord stimulation for chronic pain: a retrospective cohort study of patients from a Canadian tertiary centre.** Can J Anaesth 2025 72(7):1110-1117 PubMed
7. Edelbach BM, Lubisich J, Gospodarev V, Elbadry R, Hussain N. **Utilization of tubular retractors for paramedian approach in dorsal column spinal stimulator paddle lead placement: a technical report and literature review.** Cureus 2025 17(6):e86655 PubMed Free Full Text
8. Gehlsen K, Carrasco A, Hooghius J, Pyles S. **Neuromodulation for the treatment of moderate to severe asthma - a pilot first-in-human clinical study.** J Asthma 2025 epub 1-6 PubMed Free Full Text

9. Hallén T, Meier K, Kallewaard JW, Billet B, Elzinga L, Schapendonk J, Van den Bosch E, Zuidema X, Eyglóardóttir KL, Gulisano H, Gatzinsky K. **Objective, long-term mobility data in patients with chronic pain after lumbar spine surgery treated with spinal cord stimulation-a prospective, multicenter trial.** Reg Anesth Pain Med 2025 rapm-2025-106726 PubMed Free Full Text
10. Holland MT, Mekhail MN, Thrash G, George T, Mugan D, Paul C, Shirvalkar P, Grace W, Deer T, McGregor K, Vazquez do Campo R, Earley CJ, Walker HC. **Adaptive spinal cord stimulation improves restless legs syndrome: case report, literature review, and mechanistic hypothesis.** Sleep Med 2025 134:106664 PubMed
11. Hon K, Warman P, Venkatraman V, Suarez AD, Kelly-Hendrick M, Teshome S, Dharmapurikar R, Haglund MM, Lad SP. **A competency-based approach to functional neurosurgery training: insights from the surgical autonomy program.**Neuromodulation 2025 epub PubMed
12. Jaffee S, Mamadhi J, Kite T, Kramer DE, Tomycz N. **Delayed epidural hematoma after spinal cord stimulator implantation in a patient with von Willebrand disease: illustration.** Surg Neurol Int 2025 16:227 PubMed Free Full Text
13. Jaffee S, Mamagdi J, Vaezi M, Kite T, Gupta B, Valleta S, Monaco F, Tomycz N. **BurstDR™ spinal cord stimulation for chemotherapy-induced peripheral neuropathy.** Surg Neurol Int 2025 16:222 PubMed Free Full Text
14. Jones CM, Maher CG, Buchbinder R, Harris IA, Lin CC, Hayes C, Gorelik A. **Spinal cord stimulation patterns of care, re-interventions, and costs for private health insurers, Australia, 2011-22: a retrospective observational study.** Med J Aust 2025 epub PubMed Free Full Text
15. Lin CT, Chao WL, Huang YL, Liang SF. **Improving spinal cord stimulation patient triage: random forest model with custom evaluation functions.** Stud Health Technol Inform 2025 329:1175-1179 PubMed Free Full Text
16. Liu A, Ge Q, Jiao L, Peng H, Sun Y, Han S, Zhang Q, Si J, He J. **Stimulation intensities influence the effects of spinal cord stimulation in disorders of consciousness: an fNIRS study.** Neurophotonics 2025 12(3):035003 PubMed Free Full Text
17. Murin PJ, Murin PJ, Jain SV, Martins YC. **Perioperative predictors of early spinal cord stimulator removal: a retrospective cohort study.** Neurol Int 2025 17(7):100 PubMed Free Full Text
18. Patel S, Thomas M, Kambhampati H, Stauffer J, El-Hayek T. **Wet tap-induced spinal cord stimulator trial failure in failed back surgery syndrome: a case report highlighting intrathecal drug delivery for treatment-resistant pain.** Cureus 2025 17(6):e85793 PubMed Free Full Text
19. Rybka V, Sediva K, Spackova L, Kolar P, Bradac O, Kriz J. **Effect of epidural spinal cord stimulation in individuals with sensorimotor complete spinal cord injury: a pilot study.** Front Syst Neurosci 2025 19:1622033 PubMed Free Full Text

20. Slack JC, Rees B, Borda E, Slack J, Nicolelis MAL, Zauber SE, Gupta K, Yadav AP. **Spinal cord stimulation restores locomotion in a Parkinson's disease patient and rodents.** Brain Stimul 2025 epub PubMed Free Full Text
21. Verhey LH, Orozco AR, Mankoff D, Elisevich K, Patra S. **Short-term patient reported outcomes of multi-contact independent current control spinal cord stimulation in patients with chronic low back and extremity pain: an exploratory prospective cohort study.** Stereotact Funct Neurosurg 2025 epub 1-17 PubMed
22. Walton C, Jenkins S, Ferdon RJ, Lawrence J, Ravinsky R. **Degenerative cervical myelopathy in a patient with a pre-existing cervical spinal cord stimulator: a case report.** Cureus 2025 17(6):e86204 PubMed Free Full Text
23. Wang X, Gao Y, Yu J, Yang W, Zhang W, Huo J. **The efficacy and prognosis analysis of short-term spinal cord stimulation in the treatment of zoster-associated pain: a retrospective study.** Front Neurol 2025 16:1611447 PubMed Free Full Text
24. Wilson BA, Mar D, Robinson KT, Ohnmeiss DD, McMahan S, Rashbaum RF. **Relationship of gait and balance to successful spinal cord stimulation trials in patients being treated for persistent spinal pain syndrome type 2.**Neuromodulation 2025 epub PubMed
25. Zhu X, Tan Y, Gu Z, Yang Y, Wang N, Yin Q, Huang S, Lin Z, Huang P, Li D, Krassioukov A, Liu J. **Epidural spinal cord stimulation for the management of orthostatic hypotension in Parkinson's disease: a case report.** Brain Stimul 2025 epub PubMed Free Full Text

Indexed in PubMed Before Peer Review

1. Hanish RR, Kutcher TP, Frączek TM, Bechtold RA, Zhou J, Chamarthi S, Reyes G, Libowitz M, Shofty B, Mickey BJ, Kious BM, Goodman WK, Patel AB, Sheth SA, Herron JA, Provenza NR. **Artifact identification and mitigation strategies for longitudinal neural data collection onboard the Medtronic Percept DBS device.** medRxiv [preprint before peer review] 2025 epub PubMed Free Full Text
2. Jakes RS, Alexander BJ, Marcu VI, Ajiboye AB, Tyler DJ. **A methodological framework for the efficient characterization of peripheral nerve stimulation parameters.** medRxiv [preprint before peer review] 2025 epub PubMed Free Full Text
3. Kim YJ, De Comite A, Paniagua EV, Selvaraji S, Frey E, Mondal R, Seethapathi N, Anikeeva P. **Magnetoelectric nanodiscs diminish motor deficits in a model of Parkinson's disease.** bioRxiv [preprint before peer review] 2025 epub PubMed Free Full Text
4. Moore H, Dehnad M, Freelin A, Granger B, Subramanian S, Kulkarni A, Berto S, Lega BC, Konopka G. **Stimulation modulates cell assemblies linked with gene networks in the human temporal cortex *ex vivo*.** bioRxiv [preprint before peer review] 2025 epub PubMed Free Full Text
5. Ravivarapu H, Bagwe G, Yuan X, Yu C, Zhang L. **Sample-efficient reinforcement learning controller for deep brain stimulation in**

Parkinson's disease. ArXiv [preprint before peer review] 2025 epub PubMed Free Full Text
6. Shin H, Vettleson-Trutza S, Cabrera JR, Kwak Y, Scheitler K, Tsai ST, Oesterle T, Sung J, Blaha C, Oh Y, Lee K. **High-frequency stimulation of the ventral tegmental area rescues respiratory failure.** Res Sq [preprint before peer review] 2025 epub PubMedFree Full Text

THANK YOU TO OUR SUPPORTERS!

A full list of financial donors over time is available here

Individual supporters in 2025:
B. Todd Sitzman, MD, MPH
Richard B. North, MD
Sean Slee, PhD
SuEarl McReynolds
Terry Daglow

Industry support in 2025:
BIOTRONIK NRO
Nevro

Nonprofit support in 2025:
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, 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.
822 Guilford Avenue #102
Baltimore, MD 21202

wikistim@gmail.com