



See [ABOUT](#) WIKISTIM

NEWSLETTER #100 FEBRUARY 2022

We are pleased to send you this, our 100th, newsletter. We launched the WIKISTIM website on October 1, 2013, and by the time we sent out our first newsletter in November of that year to a few hundred of our colleagues, we had uploaded more than 1,000 spinal cord stimulation citations pointing to papers presenting primary data from clinical studies. In the past decade, we expanded WIKISTIM to include citations that present primary data from experimental (in laboratory animals and in basic science) and modeling studies divided into six target categories. Today, WIKISTIM comprises 12,044 citations, almost all of which link to a PUBMED entry. Many also link to a full-text PDF. Along the way, we began listing each month's new citations in the newsletter, making it a valuable resource for keeping up-to-date. We are also delighted that WIKISTIM now has 1573 subscribers.

Opportunities for additional growth continue to beckon and inspire us. We see, for example, a future where WIKISTIM will have additional sections and an important complement of completed data sheets. Three of our current categories (SCS, DRG and PNS) will also be closely linked with our upcoming website, "Neurostimulation Implants to Treat Chronic Pain: A Guide to Current Practice," which will also present a "living" version of the [open access neurostimulation glossary](#) we published with representatives from the Institute of Neuromodulation and the International Neuromodulation Society.

CITATIONS ADDED FROM SEARCH ON FEBRUARY 9, 2022 (if necessary, please click "View Entire Message")

Note: We usually provide *paywall-protected* full-text links for "our" journal, [Neuromodulation](#). This month, because *Neuromodulation* has a new publisher, the only full-text links available at press time were to *open-access* articles. For journals where a full-text PDF downloads immediately or has a "watermark," we link to the link rather than to the PDF.

Deep Brain Stimulation (now 6738 citations)

1. Albano L, Agosta F, Basaia S, Cividini C, Stojkovic T, Sarasso E, Stankovic I, Tomic A, Markovic V, Stefanova E, Mortini P, Kostic VS, Filippi M. **Functional connectivity in Parkinson's disease candidates for deep brain stimulation.** NPJ Parkinsons Dis 2022 8(1):4 [PubMed](#) [Free Full Text](#)
2. Andree A, Li N, Butenko K, Kober M, Chen JZ, Higuchi T, Fauser M, Storch A, Ip CW, Kühn AA, Horn A, van Rienen U. **Deep brain stimulation electrode modeling in rats.** Exp Neurol 2022 350:113978 [PubMed](#) [Free Full Text](#)
3. Askari A, Greif TR, Lam J, Maher AC, Persad CC, Patil PG. **Decline of verbal fluency with lateral superior frontal gyrus penetration in subthalamic nucleus deep brain stimulation for Parkinson disease.** J Neurosurg 2022 epub 1-6 [PubMed](#)
4. Bjercknes S, Toft M, Brandt R, Rygvold TW, Konglund A, Dietrichs E, Andersson S, Skogseid IM. **Subthalamic nucleus stimulation in Parkinson's disease: 5-year extension study of a randomized trial.** Mov Disord Clin Pract 2021 9(1):48-59 [PubMed](#) [Free Full Text](#)
5. Bogdan ID, Oterdoom DLM, van Laar T, Huitema RB, Odekerken VJ, Boel JA, de Bie RMA, van Dijk JMC, on behalf of the NSTAPS study group. **Serendipitous stimulation of nucleus basalis of Meynert-the effect of unintentional, long-term high-frequency stimulation on cognition in Parkinson's disease.**J Clin Med 2022 11(2):337 [PubMed](#) [Free Full Text](#)
6. Boogers A, Peeters J, Van Bogaert T, Asamoah B, De Vloo P, Vandenberghe W, Nuttin B, Mc Laughlin M. **Anodic and symmetric biphasic pulses enlarge the therapeutic window in deep brain stimulation for essential tremor.** Brain Stimul 2022 15(2):286-290 [PubMed](#) [Free Full Text](#)
7. Bot M, Pauwels R, van den Munckhof P, de Win M, Odekerken VJJ, Beudel M, Dijk J, de Bie RMA, Schuurman PR. **The fast gray matter acquisition T1 inversion recovery sequence in deep brain stimulation: introducing the rubral wing for dentato-rubro-thalamic tract depiction and tremor control.** Neuromodulation 2022 epub [PubMed](#)
8. Bourilhon J, Mullie Y, Olivier C, Cherif S, Belaid H, Grabli D, Czernecki V, Karachi C, Welter ML. **Stimulation of the pedunclopontine and cuneiform nuclei for freezing of gait and falls in Parkinson disease: cross-over single-blinded study and long-term follow-up.** Parkinsonism Relat Disord 2022 96:13-17 [PubMed](#)
9. Bouwens van der Vlis TAM, van de Veerdonk MMGH, Ackermans L, Leentjens AFG, Janssen MLF, Kuijf ML, Schruers KRJ, Duits A, Gubler F, Kubben P, Temel Y. **Surgical and hardware-related adverse events of deep brain stimulation: a ten-year single-center experience.** Neuromodulation 2022 25(2):296-304 [PubMed](#)

10. Bush A, Chrabaszcz A, Peterson V, Saravanan V, Dastolfo-Hromack C, Lipski WJ, Richardson RM. **Differentiation of speech-induced artifacts from physiological high gamma activity in intracranial recordings.** Neuroimage 2022 epub 118962 [PubMed](#) [Free Full Text](#)
11. Chang KW, Kim MJ, Park SH, Chang WS, Jung HH, Chang JW. **Dual pallidal and thalamic deep brain stimulation for complex ipsilateral dystonia.** Yonsei Med J 2022 63(2):166-172 [PubMed](#) [Free Full Text](#)
12. Chen Y, Zhu G, Liu Y, Liu D, Yuan T, Zhang X, Jiang Y, Du T, Zhang J. **Predict initial subthalamic nucleus stimulation outcome in Parkinson's disease with brain morphology.** CNS Neurosci Ther 2022 epub [PubMed](#) [Free Full Text](#)
13. Chen YC, Kuo CC, Chen SY, Chen TY, Pan YH, Wang PK, Tsai ST. **Median nerve stimulation facilitates the identification of somatotopy of the subthalamic nucleus in Parkinson's disease patients under inhalational anesthesia.** Biomedicines 2021 10(1):74 [PubMed](#) [Free Full Text](#)
14. de Noordhout AM, Mouchamps M, Remacle JM, Delstanche S, Bonhomme V, Gonce M. **Subthalamic deep brain stimulation versus best medical treatment: a 12-year follow-up.** Acta Neurol Belg 2022 epub [PubMed](#) [Free Full Text](#)
15. Escobar Vidarte OA, Griswold DP, Orozco Mera J, Arango Uribe GJ, Salcedo JC. **Deep brain stimulation for severe and intractable aggressive behavior.** Stereotact Funct Neurosurg 2022 epub 1-4 [PubMed](#)
16. Frank A, Bendig J, Schniewind I, Polanski WH, Sobottka SB, Reichmann H, Akgün K, Ziemssen T, Klingelhoefer L, Falkenburger BH. **Serum neurofilament indicates that DBS surgery can cause neuronal damage whereas stimulation itself does not.** Sci Rep 2022 12(1):1446 [PubMed](#) [Free Full Text](#)
17. Friedrich MU, Eldebakey H, Roothans J, Capetian P, Zwergal A, Volkmann J, Reich M. **Current-dependent ocular tilt reaction in deep brain stimulation of the subthalamic nucleus: evidence for an incerto-interstitial pathway?** Eur J Neurol 2022 epub [PubMed](#) [Free Full Text](#)
18. Ganos C, Al-Fatly B, Fischer JF, Baldermann JC, Hennen C, Visser-Vandewalle V, Neudorfer C, Martino D, Li J, Bouwens T, Ackermanns L, Leentjens AFG, Pyatigorskaya N, Worbe Y, Fox MD, Kühn AA, Horn A. **A neural network for tics: insights from causal brain lesions and deep brain stimulation.** Brain 2022 epub awac009 [PubMed](#)
19. Geraedts VJ, van Ham RAP, van Hilten JJ, Mosch A, Hoffmann CFE, van der Gaag NA, Contarino MF. **Intraoperative vs. postoperative side-effects-thresholds during pallidal and thalamic DBS.** Front Neurol 2021 12:775784 [PubMed](#) [Free Full Text](#)

20. Grover T, Dayal V, Fourcin A, Milabo C, Limousin P, Foltynie T. **Quantifying stridor associated with parkinsonism and deep brain stimulation-a case report.** *Mov Disord Clin Pract* 2021 9(1):91-94 [PubMed](#) [Free Full Text](#)
21. Hammer LH, Kochanski RB, Starr PA, Little S. **Artifact characterization and a multipurpose template-based offline removal solution for a sensing-enabled deep brain stimulation device.** *Stereotact Funct Neurosurg* 2022 epub 1-16 [PubMed](#)
22. He C, Zhang F, Li L, Jiang C, Li L. **Measurement of lead localization accuracy based on magnetic resonance imaging.** *Front Neurosci* 2021 15:632822 [PubMed](#) [Free Full Text](#)
23. Horisawa S, Kohara K, Taira T. **Intraparenchymal symptomatic cyst formation around the deep cerebellar stimulation electrode.** *World Neurosurg* 2022 160:13-15 [PubMed](#)
24. Horn MA, Gulberti A, Hidding U, Gerloff C, Hamel W, Moll CKE, Pötter-Nerger M. **Comparison of shod and unshod gait in patients with Parkinson's disease with subthalamic and nigral stimulation.** *Front Hum Neurosci* 2022 15:751242 [PubMed](#) [Free Full Text](#)
25. Jaradat A, Nowacki A, Montalbetti M, Debove I, Petermann K, Schlaeppli JA, Lachenmayer L, Tinkhauser G, Krack P, Nguyen TK, Pollo C. **Probabilistic subthalamic nucleus stimulation sweet spot integration into a commercial deep brain stimulation programming software can predict effective stimulation parameters.** *Neuromodulation* 2022 epub [PubMed](#)
26. Jiang R, Chazot P, Pavese N, Crookes D, Bouridane A, Celebi ME. **Private facial prediagnosis as an edge service for Parkinson's DBS treatment valuation.** *IEEE J Biomed Health Inform* 2022 epub [PubMed](#)
27. Kluin KJ, Mossner JM, Costello JT, Chou KL, Patil PG. **Motor speech effects in subthalamic deep brain stimulation for Parkinson's disease.** *J Neurosurg* 2022 epub 1-7 [PubMed](#)
28. Kogias E, Altenmüller DM, Karakolios K, Egger K, Coenen VA, Schulze-Bonhage A, Reinacher PC. **Electrode placement for SEEG: combining stereotactic technique with latest generation planning software for intraoperative visualization and postoperative evaluation of accuracy and accuracy predictors.** *Clin Neurol Neurosurg* 2022 213:107137 [PubMed](#)
29. Krause P, Kroneberg D, Gruber D, Koch K, Schneider GH, Kühn AA. **Long-term effects of pallidal deep brain stimulation in tardive dystonia: a follow-up of 5-14 years.** *J Neurol* 2022 epub [PubMed](#) [Free Full Text](#)
30. Mahajan UV, Ojukwu DI, Azagury DE, Safer DL, Cunningham T, Halpern CH. **Can responsive deep brain stimulation be a cost-effective treatment for severe obesity?** *Obesity (Silver Spring)* 2022 30(2):338-346 [PubMed](#)

31. Mandarano R, Danieli A, Petacchi E, Di Pede C, Mondani M, Armellin MT, Facchin D, Martinuzzi A. **Deep brain stimulation in childhood-onset dystonia due to brain pathology. A long-term study.** Eur J Paediatr Neurol 2022 37:62-67 [PubMed](#)
32. Masneuf S, Imbach LL, Büchele F, Colacicco G, Penner M, Moreira CG, Ineichen C, Jahanshahi A, Temel Y, Baumann CR, Noain D. **Altered sleep intensity upon DBS to hypothalamic sleep-wake centers in rats.** Transl Neurosci 2021 12(1):611-625 [PubMed](#) [Free Full Text](#)
33. McGrath H, Mandel M, Sandhu MRS, Lamsam L, Adenu-Mensah N, Farooque P, Spencer DD, Damisah EC. **Optimizing the surgical management of MRI-negative epilepsy in the neuromodulation era.** Epilepsia Open 2022 epub [PubMed](#) [Free Full Text](#)
34. Mivalt F, Kremen V, Sladky V, Balzekas I, Nejedly P, Gregg NM, Lundstrom BN, Lepkova K, Pridalova T, Brinkmann BH, Jurak P, Van Gompel JJ, Miller K, Denison T, St Louis EK, Worrell GA. **Electrical brain stimulation and continuous behavioral state tracking in ambulatory humans.** J Neural Eng 2022 19(1) [PubMed](#)
35. Moser M, Chitta S, O'Brien PF, Caras A, Holloway KL. **Recrudescence infection after deep brain stimulator reimplantation.** J Neurosurg 2022 epub 1-8 [PubMed](#)
36. Nakajima Y, Kambe D, Toda H, Nishida N, Nagao S, Sawamoto N, Okumura R, Ozaki A, Iwasaki K. **Thalamic deep brain stimulation for refractory atypical tremor after encephalitis of unknown etiology: a case report.** NMC Case Rep J 2021 8(1):247-252 [PubMed](#) [Free Full Text](#)
37. Pastor J, Vega-Zelaya L, Martín-Abad E. **Neurophysiological characterization of posteromedial hypothalamus in anaesthetized patients.** Brain Sci 2021 12(1):43 [PubMed](#) [Free Full Text](#)
38. Pauly MG, Barlage M, Hamami F, Steinhardt J, Baarbé J, Tran S, Hanssen H, Herzog R, Tadic V, Brüggemann N, Chen R, Münchau A, Bäumer T, Weissbach A. **Subthalamic nucleus conditioning reduces premotor-motor interaction in Parkinson's disease.** Parkinsonism Relat Disord 2022 96:6-12 [PubMed](#) [Free Full Text](#)
39. Peeters J, Boogers A, Van Bogaert T, Davidoff H, Gransier R, Wouters J, Nuttin B, Mc Laughlin M. **Electrophysiologic evidence that directional deep brain stimulation activates distinct neural circuits in patients with Parkinson disease.** Neuromodulation 2021 epub [PubMed](#)
40. Reich MM, Hsu J, Ferguson M, Schaper FLWVJ, Joutsa J, Roothans J, Nickl RC, Frankemolle-Gilbert A, Alberts J, Volkmann J, Fox MD. **A brain network for deep brain stimulation induced cognitive decline in Parkinson's disease.** Brain 2022 epub awac012 [PubMed](#) [Free Full Text](#)

41. Rožmarić G, Hero M, Rački V, Vuletić V, Chudy D, Peterlin B. **A case report of a novel GNB1 pathogenic variant and the response to deep brain stimulation.** Acta Neurol Belg 2022 epub [PubMed](#)
42. Sammartino F, Marsh R, Rezai A, Krishna V. **Non-motor effects of subthalamic nucleus stimulation in Parkinson patients.** Brain Imaging Behav 2022 16(1):161-168 [PubMed](#)
43. Sheth SA, Bijanki KR, Metzger B, Allawala A, Pirtle V, Adkinson JA, Myers J, Mathura RK, Oswald D, Tsolaki E, Xiao J, Noecker A, Strutt AM, Cohn JF, McIntyre CC, Mathew SJ, Borton D, Goodman W, Pouratian N. **Deep brain stimulation for depression informed by intracranial recordings.** Biol Psychiatry 2021 epub [PubMed](#) [Free Full Text](#)
44. Singh B, Qi XL, Blake DT, Constantinidis C. **Rhythmicity of prefrontal local field potentials after nucleus basalis stimulation.** eNeuro 2022 9(1):ENEURO.0380-21.2022 [PubMed](#) [Free Full Text](#)
45. Spagnolo F, Romeo F, Proto P, Rini AM, Leopizzi E, Tedesco A, Frizzi M, Passarella B. **Continuous subcutaneous apomorphine infusion allowing awake deep brain stimulation in a Parkinson's disease patient.** J Clin Mov Disord 2021 7(Suppl 1):9 [PubMed](#) [Free Full Text](#)
46. Sparks H, Cross KA, Choi JW, Courellis H, Thum J, Koenig E, Pouratian N. **Dorsal visual stream is preferentially engaged during externally guided action selection in Parkinson disease.** Clin Neurophysiol 2021 epub [PubMed](#)
47. Tani N, Yaegaki T, Kishima H. **A case report: hemorrhagic venous infarction after deep brain stimulation surgery probably due to coagulation of intradural veins.** NMC Case Rep J 2021 8(1):315-318 [PubMed](#) [Free Full Text](#)
48. Tian Y, Wang J, Shi X, Feng Z, Jiang L, Hao Y. **Bilateral deep brain stimulation implantation on different targets for a Parkinson's disease patient with a bullet in the brain.** Front Hum Neurosci 2022 epub 808231 [PubMed](#) [Free Full Text](#)
49. Tödt I, Al-Fatly B, Granert O, Kühn AA, Krack P, Rau J, Timmermann L, Schnitzler A, Paschen S, Helmers AK, Hartmann A, Bardinet E, Schuepbach M, Barbe MT, Dembek TA, Fraix V, Kübler D, Brefel-Courbon C, Gharabaghi A, Wojtecki L, Pinsker MO, Thobois S, Damier P, Witjas T, Houeto JL, Schade-Brittinger C, Vidailhet M, Horn A, Deuschl G. **The contribution of subthalamic nucleus deep brain stimulation to the improvement in motor functions and quality of life.** Mov Disord 2022 epub [PubMed](#) [Free Full Text](#)
50. Tong X, Wang J, Qin L, Zhou J, Guan Y, Zhai F, Teng P, Wang M, Li T, Wang X, Luan G. **Analysis of power spectrum and phase lag index changes following deep brain stimulation of the anterior nucleus of the thalamus in patients with drug-resistant epilepsy: a retrospective study.** Seizure 2022 96:6-12 [PubMed](#)

51. Torgerson LN, Munoz K, Kostick K, Zuk P, Blumenthal-Barby J, Storch EA, Lázaro-Muñoz G. **Clinical and psychosocial factors considered when deciding whether to offer deep brain stimulation for childhood dystonia.** Neuromodulation 2021 epub [PubMed](#)
52. Turchan A, Fahmi A, Taira T, Subianto H, Al Fauzi A, Prastikarunia R. **Case report on ear numbness following deep brain stimulation implantation.** Int J Surg Case Rep 2022 epub [PubMed](#) [Free Full Text](#)
53. Velasco S, Branco L, Abosch A, Ince NF. **The entropy of adaptively segmented beta oscillations predict motor improvement in patients with Parkinsons disease.** IEEE Trans Biomed Eng 2022 epub [PubMed](#)
54. Wang MB, Boring MJ, Ward MJ, Richardson RM, Ghuman AS. **Deep brain stimulation for Parkinson's disease induces spontaneous cortical hypersynchrony in extended motor and cognitive networks.** Cereb Cortex 2022 epub bhab496 [PubMed](#)
55. Wang Q, Tang B, Tang J. **Protocol for deep brain stimulation in the fimbria-fornix of freely moving mice.** STAR Protoc 2021 3(1):101054 [PubMed](#) [Free Full Text](#)
56. Xie T, Padmanaban M, Javed A, Satzer D, Towle TE, Warnke P, Towle VL. **Effect of deep brain stimulation on cerebellar tremor compared to non-cerebellar tremor using a wearable device in a patient with multiple sclerosis: case report.** Front Hum Neurosci 2022 15:754091 [PubMed](#) [Free Full Text](#)
57. Yalaz M, Maling N, Deuschl G, Juárez-Paz LM, Butz M, Schnitzler A, Helmers AK, Höft M. **MaDoPO: Magnetic detection of positions and orientations of segmented deep brain stimulation electrodes: a radiation-free method based on magnetoencephalography.** Brain Sci 2022 12(1):86 [PubMed](#) [Free Full Text](#)
58. Yan H, Siegel L, Breitbart S, Gorodetsky C, Fasano A, Rahim A, Loh A, Kulkarni AV, Ibrahim GM. **An open-label prospective pilot trial of nucleus accumbens deep brain stimulation for children with autism spectrum disorder and severe, refractory self-injurious behavior: study protocol.** Pilot Feasibility Stud 2022 8(1):24 [PubMed](#) [Free Full Text](#)
59. Yang AI, Parker D, Vijayakumari AA, Ramayya AG, Donley-Fletcher MP, Aunapu D, Wolf RL, Baltuch GH, Verma R. **Tractography-based surgical targeting for thalamic deep brain stimulation: a comparison of probabilistic vs deterministic fiber tracking of the dentato-rubro-thalamic tract.** Neurosurgery 2022 epub [PubMed](#)
60. Youn J, Oyama G, Hattori N, Shimo Y, Kuusimäki T, Kaasinen V, Antonini A, Kim D, Lee JI, Cho KR, Cho JW. **Subthalamic deep brain stimulation in Parkinson's disease with SNCA mutations: based on the follow-up to 10 years.** Brain Behav 2022 epub e2503 [PubMed](#) [Free Full Text](#)

61. Yu K, Ren Z, Hu Y, Guo S, Ye X, Li J, Li Y. **Efficacy of caudal pedunculo-pontine nucleus stimulation on postural instability and gait disorders in Parkinson's disease.** Acta Neurochir (Wien) 2022 epub [PubMed](#)
62. Zeng Z, Wang L, Shi W, Xu L, Lin Z, Xu X, Huang P, Pan Y, Chen Z, Ling Y, Ren K, Zhang C, Sun B, Li D. **Effects of unilateral stimulation in Parkinson's disease: a randomized double-blind crossover trial.** Front Neurol 2022 12:812455 [PubMed](#) [Free Full Text](#)
63. Zhang C, Zhang Y, Luo H, Xu X, Yuan TF, Li D, Cai YY, Gong H, Peng DH, Fang YR, Voon V, Sun B. **Bilateral habenula deep brain stimulation for treatment-resistant depression: clinical findings and electrophysiological features.** Transl Psychiatry 2022 12(1):52 [PubMed](#) [Free Full Text](#)
64. Zheng Z, Zhu Z, Ying Y, Jiang H, Wu H, Tian J, Luo W, Zhu J. **The accuracy of imaging guided targeting with microelectrode recoding in subthalamic nucleus for Parkinson's disease: a single-center experience.** J Parkinsons Dis 2022 epub [PubMed](#)

Dorsal Root Ganglion Stimulation (now 219 citations)

1. Berfelo T, Doll RJ, Krabbenbos IP, Buitenweg JR. **Observing altered nociceptive detection thresholds in patients with persistent spinal pain syndrome type 2 with a dorsal root ganglion stimulator.** Neuromodulation 2021 epub [PubMed](#)
2. Chapman KB, Tupper C, Yang A, van Helmond N, Yousef T. **Intermittent dorsal root ganglion stimulation is as efficacious as standard continuous dosing in treating chronic pain: results from a randomized controlled feasibility trial.** Neuromodulation 2021 epub [PubMed](#) [Free Full Text](#)
3. Rigoard P, Roulaud M, Goudman L, Adjali N, Ounajim A, Voirin J, Perruchoud C, Bouche B, Page P, Guillevin R, Naudin M, Simoneau M, Lorgeoux B, Baron S, Nivole K, Many M, Maitre I, Rigoard R, David R, Moens M, Billot M. **Comparison of spinal cord stimulation vs. dorsal root ganglion stimulation vs. association of both in patients with refractory chronic back and/or lower limb neuropathic pain: an international, prospective, randomized, double-blinded, crossover trial (BOOST-DRG Study).** Medicina (Kaunas) 2021 58(1):7 [PubMed](#) [Free Full Text](#)
4. Wensing AGCL, Breeel JS, Hollmann MW, Wille F. **Prospective observational cohort study on dorsal root ganglion stimulation in chronic postsurgical pain: results of patient-reported outcomes at two years.** Neuromodulation 2021 epub [PubMed](#)

Gastric Electrical Stimulation (now 517 citations)

1. Chen Y, Zhang S, Li Y, Yan H, Ba Y, Wang X, Shi N, Liu C. **Gastric electrical stimulation increases the proliferation of interstitial cells of cajal and**

alters the enteric nervous system in diabetic rats. Neuromodulation 2021 epub [PubMed](#)

2. Wang L, Malik A, Roop PS, Cheng LK, Paskaranandavadivel N. **A framework for the design of a closed-loop gastric pacemaker for treating conduction block.** Comput Methods Programs Biomed 2022 216:106652 [PubMed](#)

Peripheral Nerve Stimulation (now 609 citations)

1. Gilligan C, Volschenk W, Russo M, Green M, Gilmore C, Mehta V, Deckers K, De Smedt K, Latif U, Georgius P, Gentile J, Mitchell B, Langhorst M, Huygen F, Baranidharan G, Patel V, Mironer E, Ross E, Carayannopoulos A, Hayek S, Gulve A, Van Buyten JP, Tohmeh A, Fischgrund J, Lad S, Ahadian F, Deer T, Klemme W, Rauck R, Rathmell J, Maislin G, Heemels JP, Eldabe S; ReActiv8-B investigators. **Long-term outcomes of restorative neurostimulation in patients with refractory chronic low back pain secondary to multifidus dysfunction: two-year results of the ReActiv8-B pivotal trial.** Neuromodulation 2021 epub [PubMed](#) [Free Full Text](#)
2. Mai J, Liao J, Zhang Y, Zhu B, Jiang C, Lindström S, Zeng J. **Prolonged inhibitory effects of repeated tibial nerve stimulation on the micturition reflex in decorticated rats.** Neuromodulation 2022 epub [PubMed](#) [Free Full Text](#)
3. Song J, Cao X, Zhang A, Fang Z, Xu J, Gao X. **Posterior tibial nerve stimulation improves neurogenic bladder in rats with spinal cord injury through transient receptor potential/P2X signaling pathway.** Neurourol Urodyn 2022 epub [PubMed](#)
4. Te Dorsthorst M, Digesu A, van Kerrebroeck P, Elneil S, van Breda J, Janssen D, Martens F, van Balken M, Heesakkers J. **Patient-tailored healthcare and tibial nerve neuromodulation in the treatment of patients with overactive bladder symptoms.** Neurourol Urodyn 2022 epub [PubMed](#) [Free Full Text](#)
5. van Heteren EPZ, van Roosendaal BWP, van Gorp EJAA, Bronkhorst EM, Kallewaard JW, Wegener JT, Bürger K, Teernstra OPM, Buschman HPJ, Hamm-Faber TE, Vissers KCP. **Spinal cord stimulation with additional peripheral nerve/field stimulation vs spinal cord stimulation alone on back pain and quality of life in patients with failed back surgery syndrome.** Neuromodulation 2022 epub [PubMed](#)

Spinal Cord Stimulation (now 2847 citations)

1. Akbik OS, Aoun SG, Adogwa O, Bagley CA, Al Tamimi M. **Open paddle lead trial for spinal cord stimulation: an institutional experience.** Pain Physician 2022 25(1):E37-E42 [PubMed](#) [Free Full Text](#)

2. Amirianfar E, Price C. **Spinal cord stimulation trial using percutaneous leads in a patient with an existing paddle lead: a case report.** PM R 2022 epub [PubMed](#)
3. Black S, Bretherton B, Baranidharan G, Murray A, Crowther T, Deuchars S, Deuchars J. **A feasibility study exploring measures of autonomic function in patients with failed back surgery syndrome undergoing spinal cord stimulation.** Neuromodulation 2022 epub [PubMed](#)
4. Bolash R, Creamer M, Rauck R, Vahedifar P, Calodney A, Fox I, Ozaktay C, Vanquathem N. **Multi-waveform spinal cord stimulation with high frequency electromagnetic coupled (HF-EMC) powered implanted electrode array and receiver for the treatment of chronic back and leg pain (SURF study).** Pain Physician 2022 25(1):67-76 [PubMed](#) [Free Full Text](#)
5. D'Souza RS, Olatoye OO, Butler CS, Barman RA, Ashmore ZM, Hagedorn JM. **Adverse events associated with 10-kHz dorsal column spinal cord stimulation: a five-year analysis of the Manufacturer and User Facility Device Experience (MAUDE) database.** Clin J Pain 2022 epub [PubMed](#)
6. Dura JL, Solanes C, De Andres J, Saiz J. **Effect of lead position and polarity on paresthesia coverage in spinal cord stimulation therapy: a computational study.** Neuromodulation 2022 epub [PubMed](#)
7. Falowski SM, Kim CH, Obradovic M, Parker JL. **A prospective multicenter case series utilizing intraoperative neuromonitoring with evoked compound action potentials to confirm spinal cord stimulation lead placement.** Neuromodulation 2022 epub [PubMed](#)
8. Fan W, Sullivan SJ, Sdrulla AD. **Dorsal column and root stimulation at A β -fiber intensity activate superficial dorsal horn glutamatergic and GABAergic populations.** Mol Pain 2022 epub [PubMedFree Full Text](#)
9. Goel V, Kaizer A, Patwardhan AM, Ibrahim M, DeSimone DC, Sivanesan E, Shankar H. **Postoperative oral antibiotic use and infection-related complications after spinal cord stimulator surgery.** Neuromodulation 2021 epub [PubMed](#)
10. Goudman L, Billot M, Duarte RV, Eldabe S, Rigoard P, Moens M. **Gradation of clinical holistic response as new composite outcome to evaluate success in spinal cord stimulation studies for pain.** Neuromodulation 2021 epub [PubMed](#)
11. Gutiérrez Robles AE, Mousselli R, Gude L, Mohan A, Chang A. **Successful application of spinal cord stimulation in a patient with refractory bilateral meralgia paresthetica.** Pain Manag 2022 epub [PubMed](#)
12. He Y, Sun Z, Jiang J, Yin X, Han J, Zhang Y, Zheng L. **Spinal cord stimulation attenuates neural remodeling, inflammation, and fibrosis after myocardial infarction.** Neuromodulation 2021 epub [PubMed](#) [Free Full Text](#)

13. Islamov R, Bashirov F, Izmailov A, Fadeev F, Markosyan V, Sokolov M, Shmarov M, Logunov D, Naroditsky B, Lavrov I. **New therapy for spinal cord injury: autologous genetically-enriched leucoconcentrate integrated with epidural electrical stimulation.** Cells 2022 11(1):144 [PubMed](#) [Free Full Text](#)
14. Ness TJ, Su X. **Parametric assessment of spinal cord stimulation on bladder pain-like responses in rats.** Neuromodulation 2022 epub [PubMed](#)
15. Rigoard P, Ounajim A, Goudman L, Banor T, Héroux F, Roulaud M, Babin E, Bouche B, Page P, Lorgeoux B, Baron S, Adjali N, Nivole K, Many M, Charrier E, Rannou D, Poupin L, Wood C, David R, Moens M, Billot M. **The challenge of converting 'failed spinal cord stimulation syndrome' back to clinical success, using SCS reprogramming as salvage therapy, through neurostimulation adapters combined with 3D-computerized pain mapping assessment: a real life retrospective study.** J Clin Med 2022 11(1):272 [PubMed](#) [Free Full Text](#)
16. Rigoard P, Roulaud M, Goudman L, Adjali N, Ounajim A, Voirin J, Perruchoud C, Bouche B, Page P, Guillevin R, Naudin M, Simoneau M, Lorgeoux B, Baron S, Nivole K, Many M, Maitre I, Rigoard R, David R, Moens M, Billot M. **Comparison of spinal cord stimulation vs. dorsal root ganglion stimulation vs. association of both in patients with refractory chronic back and/or lower limb neuropathic pain: an international, prospective, randomized, double-blinded, crossover trial (BOOST-DRG study).** Medicina (Kaunas) 2021 58(1):7 [PubMed](#) [Free Full Text](#)
17. Rowald A, Komi S, Demesmaeker R, Baaklini E, Hernandez-Charpak SD, Paoles E, Montanaro H, Cassara A, Becce F, Lloyd B, Newton T, Ravier J, Kinany N, D'Ercole M, Paley A, Hankov N, Varescon C, McCracken L, Vat M, Caban M, Watrin A, Jacquet C, Bole-Feysot L, Harte C, Lorach H, Galvez A, Tschopp M, Herrmann N, Wacker M, Geernaert L, Fodor I, Radevich V, Van Den Keybus K, Eberle G, Pralong E, Roulet M, Ledoux JB, Fornari E, Mandija S, Mattera L, Martuzzi R, Nazarian B, Benkler S, Callegari S, Greiner N, Fuhrer B, Froeling M, Buse N, Denison T, Buschman R, Wende C, Ganty D, Bakker J, Delattre V, Lambert H, Minassian K, van den Berg CAT, Kavounoudias A, Micera S, Van De Ville D, Barraud Q, Kurt E, Kuster N, Neufeld E, Capogrosso M, Asboth L, Wagner FB, Bloch J, Courtine G. **Activity-dependent spinal cord neuromodulation rapidly restores trunk and leg motor functions after complete paralysis.** Nat Med 2022 epub [PubMed](#)
18. Sarrafpour S, Hasoon J, Urits I, Viswanath O, Mahmoudi K, Simopoulos TT, Gill J, Kohan L. **Antibiotics for spinal cord stimulation trials and implants: a survey analysis of practice patterns.** Anesth Pain Med 2021 11(5):e120611 [PubMed](#) [Free Full Text](#)
19. Smeijers S, Kho KH, De Vlieger J, Van Hoylandt A, Nuttin B, Theys T. **Spinal cord stimulation and urinary dysfunction.** Pain Med 2022 epub pnac019 [PubMed](#) [Free Full Text](#)

20. Thomson S, Huygen F, Prangnell S, Baranidharan G, Belaïd H, Billet B, Eldabe S, De Carolis G, Demartini L, Gatzinsky K, Kallewaard JW, Paroli M, Winkelmüller M, Helsen N, Stoevelaar H. **Applicability and validity of an e-health tool for the appropriate referral and selection of patients with chronic pain for spinal cord stimulation: results from a European retrospective study.** *Neuromodulation* 2022 epub [PubMed Free Full Text](#)
21. Tilley DM, Cedeño DL, Vetri F, Platt DC, Vallejo R. **Differential target multiplexed spinal cord stimulation programming modulates proteins involved in ion regulation in an animal model of neuropathic pain.** *Mol Pain* 2022 epub [PubMed Free Full Text](#)
22. Vallejo R, Chakravarthy K, Will A, Trutnau K, Dinsmoor D. **A new direction for closed-loop spinal cord stimulation: combining contemporary therapy paradigms with evoked compound action potential sensing.** *J Pain Res* 2021 14:3909-3918 [PubMed Free Full Text](#)
23. van Heteren EPZ, van Roosendaal BWP, van Gorp EJAA, Bronkhorst EM, Kallewaard JW, Wegener JT, Bürger K, Teernstra OPM, Buschman HPJ, Hamm-Faber TE, Vissers KCP. **Spinal cord stimulation with additional peripheral nerve/field stimulation vs spinal cord stimulation alone on back pain and quality of life in patients with failed back surgery syndrome.** *Neuromodulation* 2022 epub [PubMed](#)
24. Vu TN, Khunsriraksakul C, Vorobeychik Y, Liu A, Sauteraud R, Shenoy G, Liu DJ, Cohen SP. **Association of spinal cord stimulator implantation with persistent opioid use in patients with postlaminectomy syndrome.** *JAMA Netw Open* 2022 5(1):e2145876 [PubMed Free Full Text](#)
25. Yun S, Koh CS, Seo J, Shim S, Park M, Jung HH, Eom K, Chang JW, Kim SJ. **A fully implantable miniaturized liquid crystal polymer (LCP)-based spinal cord stimulator for pain control.** *Sensors (Basel)* 2022 22(2):501 [PubMed Free Full Text](#)

Sacral Nerve Stimulation (now 1114 citations)

1. Banakhar MA, Al-Qahtani W, Al-Shaiji TF, Gani J, Almutairi M, Hassouna M. **Multicenter study for the effect of COVID-19 lockdown on patients with sacral neuromodulation implants.** *Neuromodulation* 2022 epub [PubMed Free Full Text](#)
2. Kucherov V, Truong H, Raab C, Hagerty JA. **Urologic presentations and management options in pediatric mitochondrial disease.** *Urology* 2022 epub [PubMed](#)
3. Millet C, Vedrine N, Descotes JL, Ruffion A, Durif F, Guy L. **Efficacité de la neuromodulation sacrée chez le patient parkinsonien. Effectiveness of sacral neuromodulation in patients with Parkinson's disease. French.** *Prog Urol* 2022 epub [PubMed](#)

4. Pang D, Liao L, Chen G, Wang Y. **Sacral neuromodulation improves abnormal prefrontal brain activity in patients with overactive bladder: a possible central mechanism.** J Urol 2022 epub [PubMed](#)
5. Šlauf P, Vobořil R. **Sacral neuromodulation for faecal incontinence - 10 years experience and long-term outcomes of a specialized centre.** Rozhl Chir 2021 100(10):475-483 [PubMed](#)
6. Tilborghs S, Van de Borne S, Vaganée D, De Win G, De Wachter S. **The influence of electrode configuration changes on the sensory and motor response during (re)programming in sacral neuromodulation.** Neuromodulation 2021 epub [PubMed](#)
7. Werneburg GT, Werneburg EA, Goldman HB, Mullhaupt AP, Vasavada SP. **Machine learning provides an accurate prognostication model for refractory overactive bladder treatment response and is noninferior to human experts.** Neurourol Urodyn 2022 epub [PubMed](#)
8. Zhu W, Shan SS, Zhang QY, Zhang J, Zhang CY, Wang CY, Jia ZM, Zhang GX, Wang Y, Che YY, Wen JG, Wang QW. **Evaluation of the efficacy of a new variable frequency stimulation sacral neuromodulation in the treatment of detrusor hyperactivity with impaired contractility.** Chinese. Zhonghua Yi Xue Za Zhi 2022 102(2):147-151 [PubMed](#) [Free Full Text](#)

If WIKISTIM SAVES YOU TIME. . . WIKISTIM SAVES YOU MONEY!

The existence of WIKISTIM depends entirely on the support of individuals and organizations, and the Internal Revenue Service judges our suitability to continue as a 501(c)(3) non-profit charitable corporation based on the level of public support we receive. Contributions to *The Neuromodulation Foundation* are tax-deductible for United States tax-payers aged 70 1/2 who contribute directly from an Individual Retirement Account or for those who itemize deductions. While we aren't operating at the level where we can afford to collect donations via credit cards, the PAYPAL option on the [DONATE](#) page is available for your convenience, or you may, of course, ask your bank to send a check to *The Neuromodulation Foundation, Inc.*, 117 East 25th Street, Baltimore, MD 21218. We'd love to add your name to our list of financial supporters below!

Individual supporters 2019-22:

Thomas Abell, MD

Kenneth Chapman, MD

The Donlin & Harriett Long Family Charitable Gift Fund

SuEarl McReynolds

Richard B. North, MD

B. Todd Sitzman, MD, MPH

Konstantin Slavin, MD, PhD

Industry support 2019-22:

Medtronic
Stimwave

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

