



NEWSLETTER #148 February 2026 See [ABOUT WIKISTIM](#)

Employment Opportunity

After working with Dr. Richard North since the fall of 2003, serving as the Neuromodulation Foundation's first Executive Director since 2007 and as WIKISTIM's first Managing Editor since 2013, Jane Shipley is taking her well-earned retirement effective March 15th. Thus, we are searching for the next Executive Director of the Neuromodulation Foundation and Managing Editor of WIKISTIM.org.

The successful candidate will work part-time (approximately 40 hours per month) from home or from any location with Internet access. Responsibilities include 1) maintaining and updating the WIKISTIM database by searching PubMed and curating the search results, 2) creating this monthly newsletter, and 3) fulfilling the administrative and accounting functions necessary to manage a non-profit, charitable association. Specific skills required include an understanding of basic HTML and competence with Microsoft Office and Adobe applications. Familiarity with scientific literature is imperative. Familiarity with neurostimulation would be an asset.

We will provide additional information upon receipt of inquiries directed to wikistim@gmail.com. This position can be split into two parts (Executive Director and Managing Editor) for the right candidates.

Three People to Thank This Month And Please Donate

This month we acknowledge with gratitude end-of-2025 donations from Dr. Peter Staats and Dr. Nancy Staats through the Staats Family Charitable Fund and from our GES Section Editor, Dr. Thomas Abell. Please join these loyal friends of WIKISTIM by making a donation to help insure the future of our free resource.

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Deep Brain Stimulation (now 9591 citations)

1. Abdollahifard S, Mostafeenezhad N, Yousefi O, Rezaei H, Bahadori AR, Shahrivar K, Razmkon A, Jaafari N, Kavari K, Moshfeghinia R. **Incidental resolution of pedophilia in a patient undergoing deep brain stimulation (DBS) for obsessive-compulsive disorder (OCD): a case report and long-term follow-up.** *Neurol Sci* 2026 47(2):223 [PubMed](#)
2. Albanese A, Romito LM, Amami P, Calandrella D, De Santis T. **Sustained shoulder elevation posture: an under-recognized functional movement disorder phenotype.** *Brain Commun* 2025 7(6):fcf454 [PubMed](#) [Free Full Text](#)
3. Anis S, Clark PA, Shaffer S, Hartwig E, Moser L, Scott J, Hennigs E, Walter E, Lopez Gonzalez T, Escobar D, Walter BL. **Introducing a workflow algorithm for adaptive DBS programming in Parkinson's disease.** *Parkinsonism Relat Disord* 2026 epub [PubMed](#)
4. Aungsumart S, Songpattanasilp A, Rujirussawarawong S, Ounmuang C, Sathirapanya P, Limotai N. **Deep brain stimulation for Parkinson's disease in Thailand: cost, utility and policy implications for universal health coverage.** *BMJ Neurol Open* 2026 8(1):e001464 [PubMed](#) [Free Full Text](#)
5. Avena A, Sousa M, Bernasconi E, Moraud E, Pollo C, Krack P, Bergman H, Duchet B, Tinkhauser G. **Spatial propagation of movement-related basal ganglia activity predicts parkinsonian motor state.** *Brain* 2026 epub awag019 [PubMed](#) [Free Full Text](#)

6. Azghadi A, O'Carroll K, Perlow HK, Staudt MD. **Radiation exposure to deep brain stimulation leads during multiple cranial radiation courses: illustrative case.** J Neurosurg Case Lessons 2025 10(24):CASE25600 [PubMed Free Full Text](#)
7. Bahnners BH, Goede LL, Zvarova P, Meyer GM, Butenko K, Lofredi R, Rajamani N, Schaper FLWVJ, Neudorfer C, Hollunder B, Pijar J, Madan S, Hart LA, Sure M, Steina A, Rassoulou F, Hartmann CJ, Butz M, Hirschmann J, Vesper J, Faust K, Schneider GH, Sander TH, Neumann WJ, Fox MD, Miller KJ, Schnitzler A, Kühn AA, Florin E, Horn A. **The deep brain stimulation response network in Parkinson's disease operates in the high beta band.** Brain 2026 epub awaf445 [PubMed](#)
8. Bahnners BH, Lofredi R, Voss H, de Almeida Marcelino AL, Goede LL, Feldmann LK, Schnitzler A, Sander TH, Florin E, Kühn AA. **Spatial signature of low-frequency network changes accounts for pallidal stimulation outcome in cervical dystonia.** EBioMedicine 2026 epub 106140 [PubMedFree Full Text](#)
9. Balachandar A, Boogers A, Naghdlou S, Lozano AM, Kalia SK, Tinkhauser G, Fasano A. **Beta-band and aperiodic activity across new and chronic subthalamic nucleus deep brain stimulation in Parkinson's disease.** Mov Disord 2026 epub [PubMed Free Full Text](#)
10. Bernasconi E, Averna A, D'Onofrio V, Amstutz D, Herz DM, Alva L, Magalhães AD, Petermann K, Debove I, Lachenmayer ML, Nowacki A, Pollo C, Krack P, Sousa M, Tinkhauser G. **Low-frequency activity in the subthalamic nucleus informs about the acute neuropsychiatric state in Parkinson's disease.** NPJ Parkinsons Dis 2026 12(1):21 [PubMed Free Full Text](#)
11. Bucciarelli V, Vogel D, Wårdell K, Coste J, Blomstedt P, Lemaire JJ, Guzman R, Hemm S, Nordin T. Towards robust probabilistic maps in deep brain stimulation: exploring the impact of patient number, stimulation counts, and statistical approaches. Front Comput Neurosci 2026 19:1699192 [PubMedFree Full Text](#)
12. Cabreira V, Rosas MJ. **Deep brain stimulation and pregnancy: a case report and literature review.** Mov Disord Clin Pract 2026 epub [PubMed Free Full Text](#)
13. Cui C, Choi JW, Karjagi S, Wilkins KB, Negi A, Bronte-Stewart HM. **At home monitoring of chronic adaptive deep brain stimulation for Parkinson's disease.** Brain Stimul 2026 19(1):103028 [PubMed Free Full Text](#)
14. Di Luca DG, de Havenon A, Prabhune A, Perlmutter J, Hershey T, Norris SA. **Temporal trends and risk factors of hospital readmission following deep brain stimulation for Parkinson disease.** Parkinsonism Relat Disord 2026 144:108196 [PubMed](#)
15. Diao Y, Liu W, Hu T, Fan H, Fan B, Zhang J. **Individualized cortico-basal ganglia network effective connectivity predicts outcomes of STN-DBS in patients with Parkinson's disease.** Front Neurosci 2026 19:1745334 [PubMed Free Full Text](#)
16. Engelhardt J, Simon E, Zemzemi N, Dallies-Labourdette C, Courtin E, Sitta R, Benard A, Branchard O, Goillandeau M, Laurencin C, Gervais-Bernard H,

- Caire C, Thobois S, Tourdias T, Munsch F, Guehl D, Cuny E. **Enhancing asleep deep brain stimulation targeting for essential tremor using machine learning: the OPTIVIM phase 2 study.** Neurosurgery 2025 epub [PubMed Free Full Text](#)
17. Forssell M, Guo Y, Kusyk D, Cheng B, Whiting A, Wang EW, Grover P. **Transnasal implants in the nasal cavity and sphenoid sinus for minimally invasive deep brain stimulation: measurement of electric field in cadavers.** IEEE Trans Biomed Eng 2026 epub [PubMed](#)
18. Fortmann T, Zawy Alsofy S, Santacroce A, Nakamura M, Ewelt C, Lehrke R. **Impedance problems and their causes-a single-center analysis of 601 patients with de novo deep brain stimulation.** J Clin Med 2026 15(2):683 [PubMed Free Full Text](#)
19. Gharabaghi A, Groppa S, Casas E, Schnitzler A, Muñoz-Delgado L, Marshall VL, Karl J, Zhang L, Alvarez R, Feldman MS, Soileau MJ, Luo L, Walter BL, Wu C, Lei H, Herz DM, Nanduri D, Salazar CA, Luca C, Weiss D. **Real-world multicenter assessment of sustained clinical outcomes after digital deep brain stimulation.** NPJ Digit Med 2026 epub [PubMed Free Full Text](#)
20. Grozdanić N, Hero M, Papić E, Chudy D, Vuletić V. **Long-term benefit of GPI-DBS in YY1-related dystonia: a case report.** Acta Neurol Belg 2026 epub [PubMed](#)
21. Han Y, Ren Z, Mao W, Xu C, Wang Y, Li J, Mei S. **Simultaneous high-frequency subthalamic and ultra-low-frequency nigral deep brain stimulation improved motor symptoms and freezing of gait in Parkinson's Disease.** Stereotact Funct Neurosurg 2026 epub 1-18 [PubMed](#)
22. Hawa Z, Mirpour K, Choi JW, Pouratian N. **Beta burst characteristics predict instantaneous hand movements in Parkinson's disease.** Neurobiol Dis 2025 217:107157 [PubMed Free Full Text](#)
23. Heinrich R, Stieglitz L, Bichsel O. **Cognitive impairment in Parkinson's disease is associated with enhanced modulation of subthalamic beta-oscillations during DBS neurofeedback.** Neurol Res 2026 epub 1-7 [PubMed Free Full Text](#)
24. Hubers D, Doelkhar BS, Keulen BJ, Stam MJ, de Neeling MGJ, van Wijk BCM, Schuurman PR, de Bie RMA, Beudel M. **Movement-related artifacts in local field potential signals may influence adaptive deep brain stimulation.** Brain Stimul 2026 19(2):103027 [PubMed Free Full Text](#)
25. Huh R, Jang I. **Accuracy and outcomes of KYMERO robot-guided deep brain stimulation for dystonia: retrospective cohort analysis.** J Korean Neurosurg Soc 2026 epub [PubMed Free Full Text](#)
26. Issabekov G, Al-Fatly B, Mousavi M, Roediger J, Köhler R, Habets J, de Almeida Marcelino AL, Tuncer MS, Krause P, Astalosch M, Kübler-Weller D, Spies C, Spindler P, Faust K, Truckenmueller P, Schneider GH, Kühn AA, Steiner LA. **The graded effect of propofol in electrophysiology-guided navigation during deep brain stimulation surgery.** NPJ Parkinsons Dis 2026 epub [PubMed Free Full Text](#)
27. Johnson KA, Coutinho PB, Kenney LE, Wong JK, Hilliard JD, Foote KD, Bowers D, Pontone GM, de Hemptinne C. **Pallidal beta power is associated**

- with depression in Parkinson's disease.** NPJ Parkinsons Dis 2026
epub [PubMed Free Full Text](#)
28. Joshi P, Shigo L, Smith B, Kilbane CW, Guha A, Raina M, Sinha AK, Loparo KA, Ridgel AL, Shaikh AG. **Exercise-induced modulation of subthalamic activity and intra-nuclear connectivity.** Eur J Neurosci 2026
63(2):e70388 [PubMed](#)
29. Joswig H, Oreizi-Esfahani S, Medack S, Träger U, Staudt MD. **Quantitative and comparative analysis of dream content in Parkinson's disease patients undergoing deep brain stimulation: a pilot study.** World Neurosurg 2026 epub 124816 [PubMed Free Full Text](#)
30. Kamo H, Cagle JN, Johnson KA, Wong JK, Oyama G, Shimizu M, Iwamuro H, Umemura A, Hatano T, Ito M, Hattori N, de Hemptinne C. **Contrasting effects of deep brain stimulation and intravenous levodopa on local field potentials.** Mov Disord 2026 epub [PubMed](#)
31. Kamo H, Oyama G, Shimizu M, Ito M, Iwamuro H, Umemura A, Hatano T, Hattori N. **Long-term mortality and 10-year outcomes after subthalamic nucleus deep brain stimulation in Parkinson's disease.** Stereotact Funct Neurosurg 2026 epub 1-16 [PubMed Free Full Text](#)
32. Kuo CY, Mivalt F, Singh R, Nguyen RTD, Starnes DK, Wong-Kisiel L, Gregg NM, Van Gompel JJ, Miller K, Worrell GA, Lundstrom BN. **Safety of intracranial neuromodulation in drug-resistant pediatric and adult epilepsy.** Neurology 2026 106(4):e214626 [PubMed](#)
33. Lanore A, Houot M, Basset A, Bendetowicz D, Menon PJ, Bardinet E, Fernandez Vidal S, Cornillault J, Karachi C, Navarro S, Ihle J, Eusebio A, Giordana C, Rouaud T, Drapier S, Guehl D, Marques A, Hubsch C, Jarraya B, Benatru I, Thobois S, Hopes L, Maltete D, Rascol O, Tir M, Moreau C, Tranchant C, Rolland AS, Devos D, Corvol JC, Grabli D, Hainque E; PREDISTIM Study Group. **Understanding dopaminergic dose reduction following STN-DBS: mediation analysis.** BMJ Neurol Open 2026
8(1):e001427 [PubMed Free Full Text](#)
34. Liao S, Tang JW, Li Y. **Gradient boosting machine model predicts psychiatric complications after deep brain stimulation in Parkinson's disease.** World J Psychiatry 2026 16(2):113124 [PubMed Free Full Text](#)
35. Listik C, Listik E, Rolim FPS, Soares MC, Barbosa RMG, Monaco BA, Farah M, Cordellini MF, Capato T, Brandão PRP, Brum IV, Portela DMMC, Noleto GS, Falcone A, Souza JCC, Casagrande SCB, Limongi JCP, Micheli GC, Viana LS, Moscovich M, Carvalho FMM, Rieder CRM, Barbosa ER, Andrade DC, Cury RG. **Deep brain stimulation for dystonia: outcomes from a Brazilian cohort.** Arq Neuropsiquiatr 2025 83(11):1-7 [PubMed Free Full Text](#)
36. Liu D, Cao T, Shang Y, Liu M, Sun P, Wang N, Dong Y, Guo Y, Kong D, Song Z, Liu L, Zhang G, Wong P, He S, Simpson T, Guo X, Men B, Kuang Y, Wang X, Chen G, Yin S, Yang Y. **Nonlinear segmentation and positioning of thalamic nuclei for deep brain stimulation implantation assisted by surgical robot in patients with disorders of consciousness: a technical report.** BMC Neurol 2026 epub [PubMed Free Full Text](#)

37. Loeffler MA, Klocke P, Wurster I, Lerche S, Cebi I, Gasser T, Gharabaghi A, Brockmann K, Weiss D. **Clinical and biological determinants of longitudinal cognitive function in patients with GBA1 variants and subthalamic deep brain stimulation.** Ann Neurol 2026 epub [PubMed Free Full Text](#)
38. Marschoun S, Treven M, Brücke C, Lehrner J. **The impact of depressive symptoms on 5-year all-cause mortality in patients with Parkinson's disease treated with and without deep brain stimulation.** J Neural Transm (Vienna) 2026 epub [PubMed Free Full Text](#)
39. Mendlen M, Tien RN, Chee K, Platt JP, Machnik J, Bayman E, Anigbogu C, Kern D, Ojemann SG, Thompson JA, Kramer DR. **Action tremor kinematics exhibit features of stabilization dysfunction in essential tremor patients.** J Neurosci Methods 2026 428:110680 [PubMed](#)
40. Mendonça MD, Barbosa R. **STN-DBS: pre-synaptic stimulation causes post-synaptic inhibition.** Mov Disord 2026 epub [PubMed](#)
41. Mithani K, Coleman SC, Breitbart S, Fasano A, Gorodetsky C, Ibrahim GM. **Deep brain stimulation modulates ventral striatal physiology in children with severe self-injurious behaviour.** Brain Stimul 2026 19(1):103026 [PubMed Free Full Text](#)
42. Moraes de Falcone AC, França C, Guimarães TG, Cury RG. **The electric brain: approach to suboptimal DBS parameters.** Clin Park Relat Disord 2025 14:100418 [PubMed Free Full Text](#)
43. Nho YH, Qiu L, Seilheimer RL, Campos G, Chang A, Wang Z, Magnotti JF, Beauchamp MS, Barbosa DAN, Horn A, Williams NR, Brown LA, Ganguly TM, Cristancho M, Pesaran B, Oathes DJ, Miller KJ, Scangos KW, Halpern CH. **Human orbitofrontal neural activity is linked to obsessive-compulsive behavioral dynamics.** Cell 2026 epub [PubMed Free Full Text](#)
44. Onuigbo C, Branson C. **Exploring deep brain stimulation willingness in Black individuals with Parkinson's disease.** Equity Neurosci 2025 1(2):100012 [PubMed Free Full Text](#)
45. Ortiz FL, Cukiert CM, Vieira JV, de Oliveira JPS, Burattini JA, Guimaraes RB, Capitaio PS, Cukiert A. **Effects of continuous bipolar hippocampal deep brain stimulation on memory in patients with unilateral or bilateral refractory temporal lobe epilepsy.** Epilepsia 2026 epub [PubMed](#)
46. Ostrem JL, Luo P, Weaver FM, Follett K, Rothlind J, Galifianakis NB, Lai EC, Bronstein J, Duda J, Holloway K, Sarwar A, Brodsky M, Chung K, Spindler M, Reda D, Snodgrass A, Moy C, Huang G, Wei Y, Marks WJ Jr; CSP 468F Study Group. **10-year clinical outcomes of subthalamic nucleus versus pallidal deep brain stimulation for Parkinson's disease: VA/NINDS CSP #468F.** Front Neurol 2026 16:1728999 [PubMed Free Full Text](#)
47. Peters PA, Zhou R, Singh R, Gregg NM, Worrell GA, Lundstrom BN, Miller KJ, Van Gompel JJ. **Four-lead deep brain stimulation for multifocal drug-resistant epilepsy: surgical safety profile and preliminary effectiveness.** J Neurosurg 2026 epub 1-12 [PubMed](#)

48. Philipp LR, Hines K, Williams J, Miao J, Wu C. **Reframing the risks of deep brain stimulation: a comparison of 2.8 million elective surgeries from the NSQIP database.** Ann Neurol 2026 epub [PubMed](#)
49. Poulou G, Tempier N, Temiz G, Fernandez Vidal S, Navarro S, Vidailhet M, Coubes P, Lau B, Welter ML, Hainque E, Karachi C. **Deep brain stimulation of the internal pallidum modulates the mesencephalic locomotor pathway in improved cervical dystonic patients.** Mov Disord Clin Pract 2026 epub [PubMed](#)
50. Qiu L, Nho YH, Seilheimer RL, Kim MJ, Tufanoglu A, Williams NR, Wexler A, Oslin DW, Millet B, Scangos KW, Pesaran B, Evins AE, Richardson RM, Childress AR, Halpern CH. **Electrographic cue-reactivity co-localizes with accumbens deep brain stimulation in a case of opioid use disorder.** Nat Commun 2026 epub [PubMed](#) [Free Full Text](#)
51. Reimer J, Schumann F, Lohmann K, Riemer TG, Krauss JK, Schneider GH, Kühn AA, Krause P. **Long-term efficiency of pallidal DBS and the role of Levodopa treatment in DYT-GNAL and 18p deletion syndrome associated dystonia: an observational study and review of literature.** J Neural Transm (Vienna) 2026 epub [PubMed](#) [Free Full Text](#)
52. Romito LM, Teles R, Kaymak A, Colucci F, Elia AE, Rinaldo S, Devigili G, Cilia R, Zorzi G, Mazzoni A, Leta V, Zech M, Carecchio M, Garavaglia B, Levi V, Andreasi NG, Eleopra R. **Sex-related differences in the short and long-term outcome of internal pallidus stimulation for dystonia.**Neurol Sci 2026 47(1):168 [PubMed](#) [Free Full Text](#)
53. Shen A, Salimpour Y, Butala A, Kim MJ, Choi KS, Bray M, Nucifora F, Schretlen D, Harvey P, Anderson WS, Figeo M, Mills KA, Sawa A, Cascella NG. **Substantia nigra pars reticulata involvement in auditory hallucinations of treatment-resistant schizophrenia: a deep brain stimulation case report.** Schizophrenia (Heidelb) 2026 epub [PubMed](#) [Free Full Text](#)
54. Shen Y, Zhao D, Lv Y, Liu Y, Chen Y, Zhang Y, Chen S. **A wearable deep brain stimulation system for behavioral studies in rodents.** Front Neurosci 2026 19:1707636 [PubMed](#) [Free Full Text](#)
55. Singh H, Bhatia N, Shless J, Stamm M, Warren AEL, Kulsomphob A, Pacheco-Barrios N, Chua MMJ, Rolston JD. **Comparative analysis of machine learning algorithms for predicting stereotactic coordinates of the centromedian nucleus.** J Neurosurg 2026 epub 1-12 [PubMed](#)
56. Smyth C, Anjum MF, Zhang JX, Yao J, Abbasi-Asl R, Starr P, Little S. **Personalized supervised and unsupervised intracranial sleep decoding during deep brain stimulation.** NPJ Digit Med 2026 epub [PubMed](#) [Free Full Text](#)
57. Thiel M, Bernardi K, Saez-Diez EG, Rong J, Dorison N, Doummar D, Ravelli C, van de Pol LA, Dijk JM, Schuurman R, Spitz MA, Boulloud C, Troncoso-Schifferli M, Munoz-Chesta D, Stone S, Northam WT, Yang K, Koy A, Ebrahimi-Fakhari D. **Bilateral globus pallidus deep brain stimulation improves motor function in ADCY5-related disorder.** Mov Disord 2026 epub [PubMed](#)

58. Wójcik R, Gajos A, Dębska A, Zaczekowski K, Podstawka M, Szmyd B, Bobeff EJ, Brandel MG, Fahlström A, Ratajczyk P, Jaskólski DJ, Wiśniewski K. **Preoperative brain atrophy as a predictor of motor outcomes after STN deep brain stimulation in Parkinson's disease.** Stereotact Funct Neurosurg 2026 epub 1-29 [PubMed](#)
59. Wolff Fernandes F, Stenmark Persson R, Saryyeva A, Runge J, Blomstedt P, Krauss JK. **Denial of hardware-related skin erosion in patients with effective deep brain stimulation: a novel phenomenon.** Stereotact Funct Neurosurg 2026 epub 1-16 [PubMed](#) [Free Full Text](#)
60. Yang M, Liu W, Chen P, Liu Z, Sun R, Xu B, Wang Q, Xue B, Gao C, She J, Ma C, Zhang D, Li Z, Yi N, Zhang D, Feng J, Yu C, Wang J, Luo Z. **Injectable hydrogel bioelectrostimulator for wireless deep brain neuromodulation.** Nat Commun 2026 epub [PubMed](#) [Free Full Text](#)
61. Zhao X, Cao Y, Li X, Wu P, Zhou J, Zou Q, Hong H, Huang J, Sultan R, Wang J. **Single-cell transcriptome analysis reveals mechanisms by which hippocampal deep brain stimulation promotes neurorepair and microglial subpopulation remodeling in ischemic stroke.** J Transl Med 2026 24(1):96 [PubMed](#) [Free Full Text](#)
62. Zhou Y, Zhang Y, Li G, Zhang W. **Neuromelanin-sensitive MRI as a biomarker for individualized deep brain stimulation in Parkinson's disease: associations between substantia nigra imaging and therapeutic outcomes.** Parkinsonism Relat Disord 2026 144:108205 [PubMed](#)
63. Zhu GY, Merk T, Butenko K, Yin ZX, Chen YC, Li NF, Binns T, Ma RY, Du TT, Liu YY, Xie HT, Shi L, Yang AC, Meng FG, Kühn AA, Zhang JG, Neumann WJ. **Decoding the impact of visual states on adaptive deep brain stimulation feedback signals in movement disorders.** NPJ Parkinsons Dis 2026 epub [PubMed](#) [Free Full Text](#)

Deep Brain Stimulation Indexed in PubMed Before Peer Review (not included in the WIKISTIM database until they are definitively published)

1. Brown DE, Okorokova E, Iacobacci C, Coughlin B, Bloch O, Trautmann EM, Cash SS, Paulk AC, Stavisky SD, Brandman DM. **High-density multi-depth human recordings using 45 mm long neuropixels probes.** ArXiv [Preprint] 2026 epub [PubMed](#) [Free Full Text](#)
2. Shevlin BRK, Fu QX, Batten SR, Kopell BH, Neal Davis A, Heflin M, Heisig S, Rozell CJ, Kato A, Kulkarni KR, Choi KS, Song HN, O'Neill S, Nauvel T, Trivedi I, White JP, Lohrenz T, Figeo M, Twomey T, Moran R, Bang D, Hartle AE, Howe WM, Kishida KT, Barbosa LS, Fiore VG, Saez I, Montague PR, Mayberg HS, Gu X. **Dopamine and serotonin transients predict depressive symptom relief following deep brain stimulation of human subcallosal cingulate cortex.** bioRxiv [Preprint] 2025 epub [PubMed](#) [Free Full Text](#)

Dorsal Root Ganglion Stimulation (still 315 citations)

Gastric Electrical Stimulation (now 542 citations)

1. Eriksson SE, Chaudhry N, Gardner ME, Zarrineh T, Zheng P, Ayazi S. **Impact of preoperative cannabis use on outcomes following surgical intervention for gastroparesis.** Surg Endosc 2026 epub [PubMed](#) [Free Full Text](#)
2. Gongora AG, Gharby C, Wnuk M, Abell T, Islam S. **Selecting the right patient for gastric electrical stimulation: using blinded temporary stimulation trials in children and adolescents.** Neuromodulation 2026 epub [PubMed](#)
3. Venard E, Eriksson SE, Gardner M, Zheng P, Ayazi S. **Disparities in presentation and outcomes after surgery for medically refractory gastroparesis: the impact of demographic and socioeconomic status.** J Gastrointest Surg 2026 30(3):102312 [PubMed](#) [Free Full Text](#)

Meta-Analysis (now 63 citations)

1. Falcão L, Arruda G, Goyal A, Sampaio Silva RA, Donato KO, Nery Cardoso MC, Ribeiro TC, Nishizima A, Ahmed A, Pereira da Silva AM, Gonçalves OR, Assumpção de Monaco B. **Closed-loop spinal cord stimulation for chronic pain: a systematic review and meta-analysis.** Neuromodulation 2026 epub [PubMed](#)

Peripheral Nerve Stimulation (now 1000 citations)

1. Amann M, Franke J, Kilian F, Sandalcioglu IE, Meisel HJ, Ardeshiri A. **Real-world two-year durability of restorative neurostimulation for treatment of multifidus dysfunction in patients with chronic low back pain: an observational German cohort study.** Eur Spine J 2026 epub [PubMed](#) [Free Full Text](#)
2. Borrella-Andrés S, Rodríguez-Sanz J, López-de-Celis C, Marqués García I, Bueno-Gracia E, Rodríguez-Mena D, Malo-Urriés M. **Effect of ultrasound-guided percutaneous electrolysis and nerve stimulation on pain and function in carpal tunnel syndrome: a randomized clinical trial.** Pain Med 2025 epub pnaf170 [PubMed](#)
3. Liu W, Wang Q, Sun R, Yang M, Wu P, Zhang D, Yang K, Ma C, Gao C, Yi N, Li Z, Wen L, Wu L, Li X, Feng J, Wang Z, Luo Z. **Chronic neurostimulation of splenic nerve enabled by hydrogel-bioelectronics for wireless electroceutical immunomodulation therapy.** Natl Sci Rev 2025 13(2):nwaf557 [PubMed](#) [Free Full Text](#)
4. Messeha P, Weiderman G, Belli J, Patel S, El-Hayek T. **Permanent peripheral nerve stimulation for chronic cervical neck pain: a case report.** Cureus 2025 17(12):e99344 [PubMed](#) [Free Full Text](#)
5. Nseyo U, Wang L, Crow A, Shatkin-Margolis A, Zuo S, John Boscardin W, Suskind AM. **Determining a real-world definition of percutaneous tibial nerve stimulation induction therapy in Medicare beneficiaries with overactive bladder.** Urology 2026 epub [PubMed](#)

6. Ortega FJ, Giner MJ, Pérez-Cervera L, Tomás E, Valdesuso R, Navarro I, Delicado-Miralles M, Velasco E. **Plasticity-inducing percutaneous peripheral nerve stimulation for treating neck pain: a blinded, randomised clinical trial.** Eur J Pain 2026 30(1):e70207 [PubMed](#)
7. Pardo K, Boes CJ, Kissoon NR. **Temporary occipital nerve stimulation as transitional therapy for chronic intractable cluster headache: a case report and proof of concept.** Headache 2026 epub [PubMed](#)
8. Parmar J, Javed S. **Optimizing PNS lead placement for chemotherapy-induced peripheral neuropathy: a preliminary clinical study.** Pain Manag 2026 epub 1-8 [PubMed](#)
9. Roux E, Gulati A, Bhatia A, Hao D. **Access to interventional therapies for cancer pain: an exploratory survey of cancer pain experts.** Interv Pain Med 2026 5(1):100727 [PubMed](#) [Free Full Text](#)
10. Zhao H, Liu SL, Liu YL, Kang JY, Lin L, Zhou HC, Ma LJ. **Gasserian ganglion and supraorbital nerve stimulation for the treatment of herpetic-related neuralgia in the ophthalmic branch of the trigeminal nerve: a single-center retrospective study.** Neuromodulation 2026 epub [PubMed](#)

Sacral Nerve Stimulation (now 1348 citations)

1. Li Z, Zhu Q, Zhang Y, Zhu W, Lv L, Zhang Y, Wang C, Zeng Y, Xu S, Wen J, Wang Q. **Effects of immediate sacral neuromodulation on bladder in rats with spinal cord hemisection-induced neurogenic bladder.** Auton Neurosci 2026 264:103391 [PubMed](#) [Free Full Text](#)
2. Marinello F, Planellas P, Fraccalvieri D, Ortega-Torrecilla N, Gil J, Kreisler E, Pellino G, Espín-Basany E. **Exploratory analysis of urinary and sexual dysfunction in patients with low anterior resection syndrome undergoing sacral neuromodulation: insights from the SANLARS trial.** Dis Colon Rectum 2026 69(2):226-234 [PubMed](#)

Spinal Cord Stimulation (now 3729 citations)

1. Aihemaitiniyazi A, Li T, Zhang H, Wei D, Cai P, Wang W, Luan G, Wang Y, Liu C. **Spinal cord stimulation improves brain connectivity and consciousness level in patients with disorders of consciousness.** Neuroimage 2026 327:121694 [PubMed](#) [Free Full Text](#)
2. Fitzrol DN, Sitthinamsuwan B, Jirachaipitak S, Euasobhon P, Zinboonyahgoon N, Nunta-Aree S. **Comparative outcomes of spinal cord stimulation for neuropathic pain: peripheral nerve versus spinal cord lesions.** Neurosurg Rev 2026 49(1):117 [PubMed](#) [Free Full Text](#)
3. Giakas AM, Milano ME, Gehret JA, Rihn JA. **Compressive cervicothoracolumbar epidural haematoma following lead insertion for spinal cord stimulator trial.** BMJ Case Rep 2026 19(1):e268333 [PubMed](#)
4. Goudman L, Mullins C, Piliitsis JG, Rigoard P, Billot M, Moens M. **Health care providers' opinions on decision-making during the spinal cord stimulation journey: an online survey.** Neuromodulation 2026 epub [PubMed](#)

5. Hasoon J, Urits I, Viswanath O. **Improved pain and function using multiphase spinal cord stimulation in a nonsurgical spine patient.** Orthop Rev (Pavia) 2026 18:155104 [PubMed](#) [Free Full Text](#)
6. Hasoon J, Urits I. **Functional recovery following spinal cord stimulation in a patient utilizing prospera spinal cord stimulation system with multiphase stimulation.** Orthop Rev (Pavia) 2026 18:155096 [PubMed](#) [Free Full Text](#)
7. Izzo A, Burattini B, Martinelli R, D'Alessandris QG, D'Ercole M, Fuggetta MF, Montano N. **High-frequency spinal cord stimulation for the treatment of spasticity: a preliminary case series.**Brain Sci 2026 16(1):118 [PubMed](#) [Free Full Text](#)
8. Kankam S, Wahezi S, Yener U, Petersen EA, Cifti HB, Kaye AD. **Spinal cord stimulation tolerance and treatment by waveform conversion using externalized trialing: a retrospective review.**Pain Physician 2026 29(1):37-44 [PubMed](#) [Free Full Text](#)
9. Lam JLW, Loi KJ, Vedapudi V, Hameed M, Harake ES, Chen KS. **Implantable pulse generator site pain following spinal cord stimulation: a case-control study.** Oper Neurosurg 2026 epub [PubMed](#)
10. Lei X, Liao T, He R, Yu X, Qin Y, Hu X, Ye X, Lu B, Jiang Z. **Central effects of short-term spinal cord stimulation in postherpetic neuralgia: a longitudinal fMRI and DTI study.** Front Neurosci 2026 19:1744783 [PubMed](#) [Free Full Text](#)
11. LLopis Calatayud JE, Ocón M, Bretos-Azcona PE, Rodriguez Bezos D. **All-in-one spinal cord stimulation and its economic impact.** Health Econ Rev 2026 epub [PubMed](#) [Free Full Text](#)
12. Mo B, Sacks S, Markar J. **Spinal cord stimulation as a potential therapeutic modality for managing concurrent chronic low back and abdominal pain complicated by device migration: a case report.** Clin Case Rep 2026 14(1):e71784 [PubMed](#) [Free Full Text](#)
13. Ramkumar V, Maljaars J. **Spinal cord infarction as an immediate complication of spinal cord stimulator placement.** Pain Med Case Rep 2025 9(7):349-352 [PubMed](#) [Free Full Text](#)
14. Reinders LJ, Huygen FJPM, de Vos CC. **The effects of tonic and burst spinal cord stimulation on cortical pain processing and their interaction with conditioned pain modulation.**Neuromodulation 2026 epub [PubMed](#) [Free Full Text](#)
15. Terkelsen MH, Hvingelby VS, Johnsen EL, Møller M, Danielsen EH, Henriksen T, Glud AN, Tai Y, Baun AM, Knudsen AL, Valdemarsen RN, Horsager J, Okkels N, Andersen ASM, Meier K, Borghammer P, Molloy S, Nandi D, Moro E, Sørensen JCH, Pavese N. **Spinal cord stimulation therapy for gait impairment in Parkinson's disease: a double-blinded, randomised feasibility trial with an open extension.** Nat Commun 2026 epub [PubMed](#) [Free Full Text](#)
16. Zhang H, Luo X, Ma B, Li L, Yin X, Luo Z, Zhang B, Zhang X, Li H, Yao Q, Lim J. **Biphasic electrostimulation artifact model for ecap extraction in spinal**

- cord stimulation.** IEEE Trans Neural Syst Rehabil Eng 2026
epub [PubMed Free Full Text](#)
17. Zhou PB, Sun HT. **Comments on early outcomes with a flexible ECAP based closed loop using multiplexed spinal cord stimulation waveforms- single-arm study with in-clinic randomized crossover testing.** Pain Med 2026 epub pnag007 [PubMed](#)

Spinal Cord Stimulation Indexed in PubMed Before Peer Review (not included in the WIKISTIM database until they are definitively published)

1. Ladner K, Versantvoort EM, Thijssen MEG, Mugan D, Baker SN, Kraskov A, Vuong QC, Sharma M, Bikson M, Dietz BE, Palmisani S, Obara I. **Electrophysiological characteristics of epidural spinal signals in preclinical models of spinal cord stimulation.** bioRxiv [Preprint] 2026
epub [PubMedFree Full Text](#)

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