Neuromodulation: Technology at Neural Interface
Editorial Board Members Conflict of Interest Disclosures

Thomas Abell, MD
Consultant/Advisory Board: Censa, Nuvaira

Alaa Abd-Elsayed, MD
Consultant/Advisory Board: Medtronic and Avanos

Jeff Arle, MD, PhD, FAANS
Speaker Programs: Boston Scientific, LivaNova/Cyberonics
Consultant/Advisory Board Income: Medtronic, Boston Scientific, Saluda Medical
Education/Research Income: Boston Scientific, Medtronic, Abbott

Tipu Aziz, MD, MBBS
Speaker Programs: Boston Scientific, Medtronic, Abbott
Consultant/Advisory Board Income: Medtronic
Education/Research Income: Boston Scientific, Medtronic, Abbott

Giancarlo Barolat, MD
Speaker Programs: Boston Scientific, Nevro
Company Employee: Microleads, DeFuse
Consultant/Advisory Board Income: Galvani Bioelectronics, Medtronic, Microleads, DeFuse
Stock Options: Microleads, DeFuse

Jocelyne Bloch, MD
Speaker Programs: GTX
Consultant/Advisory Board: GTX
Company Employee: GTX
Intellectual Property: GTX
Education/Research Grants: GTX
Stockholder: GTX

Stana Bojanic, BSc, MBBS: Nothing to Disclose

Helen Bronte-Stewart, MD MSE
Speaker Program: Medtronic
Consultant/Advisory Board: Medtronic

Eric Buchser, MD, DEAA
Consultant/Advisory Board Income: Medtronic

Jin Woo Chang, MD, PhD: Nothing to Disclose

Jiande Chen, PhD: Nothing to Disclose

Arthur Cukiert, MD, PhD: Nothing to Disclose
**Dirk De Ridder, MD**  
Speaker Program: Abbott  
Consultant/Advisory Board: Abbott  
Intellectual Property / Licensing: Burst stimulation IP is licensed to Abbott  
Education/Research Grants: Abbott  

**Catherine DeAngelis, MD, MPH:** Nothing to Disclose  

**Timothy Deer, MD**  
Consultant/Advisory Board: Abbott, Axonics, Boston Scientific, Medtronic, Nalu, Nevro, Saluda Medical, Vertiflex, Vertos, Flowonix, SpineThera, Cornerloc, Ethos, SPR Therapeutics, Stimogenics, SI Bone, PainTeq  
Intellectual Property: Abbott  
Education/Research Income: Abbott, Mainstay, Saluda, Vertiflex, Vertos, SPR Therapeutics, Boston Scientific  
Stockholder: Ethos  
Stock Options Value: Axonics, Bioness, Nalu, Vertos, Vertiflex, Saluda, Spinethera  

**Laura Demartini, MD**  
Speaker Programs: Abbott, Boston Scientific,  
Consultant/Advisory Board: Boston Scientific  

**Mike JL DeJongste MD, PhD, FESC:** Nothing to Disclose  

**Rui Duarte, MSc, PhD**  
Consultant/Advisory Board: Boston Scientific, Medtronic, Mainstay Medical, Saluda Medical  

**Sam Eldabe, MBBS**  
Consultant / Advisory Board: Abbott, Mainstay, Medtronic, Saluda Medical  
Education/Research Grants: Boston Scientific, Medtronic  
Stockholder: Electrocore  

**James J. Fitzgerald, MA, BM, BCh, PhD**  
Consultant / Advisory Board: Abbott, Medtronic  
Education/Research Grants: Abbott  

**Robert Foreman, PhD:** Nothing to Disclose  

**Sean L. Francis, MD:** Nothing to Disclose  

**Felipe Fregni, MD, PhD:** Nothing to Disclose  

**Chris Gilligan, MD, MBA**  
Consultant / Advisory Board: Abbott, Nuvectra, Spine Biopharma, Medtronic, Saluda Medical, Eli Lilly  
Medico-Legal Consulting: Endo Pharmaceuticals, McKesson, Teva Pharmaceuticals  
Education/Research Grants: Mainstay Medical, Sollis Therapeutics
**Peter Goadsby, MD, PhD, DSc**
Consultant/Advisory Income: Aeon Biopharma, Alder Biopharmaceuticals, Amgen, Allergan, Biohaven Pharmaceuticals, Clexio, Eli Lilly, Teva Pharmaceuticals, Electrocore, eNeura, GlaxoSmithKline, MundiPharma, Novartis, Pfizer, Santara Therapeutics, WL Gore, Gerson Lehrman Group, Guidepoint, Impel Neuropharma, Epalex
Stock Options: Trigemina, Inc.
Educational/Research: Amgen, Celgene, Eli Lilly (all paid to University)
Intellectual Property: eNeura- Magnetic Stim for HA (assigned to eNeura; no fees)

**Warren Grill, PhD**
Consultant / Advisory Board: Axonics, Boston Scientific, Cala Health, Galvani Bioelectronics, SPR Therapeutics, Hatteras Ventures, Broadview Ventures, Dignify Therapeutics
Company Employee: NDI Healthcare Fund, SPR Therapeutics, CheckPoint Surgical, Deep Brain Innovations
Intellectual Property: Galvani Bioelectronics, Deep Brain Innovations
Education / Research: Boston Scientific, LivaNova/Cyneronics, Medtronic, Dignify Therapeutics, EPIC Medical / Platinum Group Coatings
Stock Options : Cala Health, Blackfyn, NDI Health Care Fund, SPR Therapeutics, Deep Brain Innovations

**Robert Gross, MD, PhD**
Consultant/Advisory Board Income: Medtronic
Education/Research Income: Boston Scientific, Medtronic

**Yun Guan PhD, MD**
Speaker Programs: Medtronic
Consultant / Advisory Board: Medtronic
Education/Research Income: Medtronic, TissueTech, Inc.

**Magdy Hassouna, MD, PhD**
Speaker Programs Medtronic
Education / Research: Medtronic

**Salim Hayek, MD, PhD:** Nothing to Disclose

**Jaimie Henderson, MD**
Consultant/Advisory Board Income: Enspire DBS, NeuraLink

**Frank Huygen, MD, PhD**
Speaker Program: Abbott, Boston Scientific, Medtronic, Saluda
Consultant/Advisory Board: Abbott, Boston Scientific, Saluda, Spinal Modulation
Education/Research Grants: Abbott, Saluda, Spinal Modulation
Leonardo Kapural, MD, PhD
Speaker Program Income: Medtronic, Nevro, Abbott, Nalu, Biotronik, Stimgenics
Consultant/Advisory Board Income: Medtronic, Nevro, Abbott, Nalu, Biotronik, Stimgenics
Medico/Legal: Medtronic, Nevro, Abbott, Nalu, Biotronik, Stimgenics
Education/Research Income: Biotronik, Nevro, Saluda Medical, Gimer
Stockholder Stock Value: Nalu
Stock Options Value: Nalu

Yoichi Katayama, MD, PhD: Nothing to Disclose

Zelma Kiss, MD, PhD: Nothing to Disclose

Charles Knowles, BChir, MA, PhD
Speaker Program Income: Medtronic, Saluda Medical
Consultant/Advisory Board Income: Medtronic
Education/Research Income: Medtronic, Saluda Medical

Shivanand P. Lad, MD, PhD
Consultant/Advisory Board Income: Medtronic, Abbott, Boston Scientific, Mainstay Medical, Nevro, Higgs Boson Health, Minnetronix Medical, Presidio Medical
Education/Research Income: Abbott, Boston Scientific, Mainstay Medical, Medtronic, Nevro
Stock Options: Higgs Boson Health, Minnetronix Medical, Presidio Medical

Kendall Lee, MD, PhD
Speaker Program Income: Medtronic, NaviNetics
Consultant/Advisory Board Income: Medtronic, NaviNetics
Medico-Legal Consulting: Medtronic, NaviNetics
Education/Research Income: Medtronic, NaviNetics, Abbott, Cala Health
Intellectual Property / Licensing: Medtronic, NaviNetics
Stockholder: NaviNetics
Company Employee: NaviNetics

Robert Levy, MD, PhD
Consultant/Advisory Board Income: Saluda Medical, Nalu, Mainstay Medical (last compensation received <3 years prior)
Stock Options: Nalu, Saluda Medical

Bengt Linderoth, MD, PhD
Speaker Program Income: Boston Scientific, Medtronic, Abbott, Elekta AB Stockholm (Stereotactics)
Consultant/Advisory Board Income: Boston Scientific, Elekta AB, Medtronic

John Loeser, MD: Nothing to Disclose

Guoming Luan, MD, PhD: Nothing to Disclose
**Andre Machado, MD, PhD**
Consultant/Advisory Board Income: Abbott, Spinal Modulation:DSMB
Education/Research Income: Medtronic (fellowship support)
Stockholder Stock Value: Autonomic Technologies, Cardionomics, Enspire
Stockholder Stock Value >5%: My wife and I are inventors and our IP is part of the intellectual property base for these companies.
Intellectual Property / Licensing: Autonomic Technologies, Cardionomics, Enspire

**Sean Mackey MD, PhD:** Nothing to Disclose

**Georgios Matis, MSc, PhD:**
Speaker Programs: Boston Scientific
Consultant/Advisory Board: Boston Scientific
Education/Research Grants: Boston Scientific

**Cameron McIntyre, PhD**
Speaker Programs: Boston Scientific
Consultant/Advisory Board Income: Boston Scientific, Surgical Information Sciences, CereGate
Intellectual Property: Boston Scientific, Hologram Consultants, Neuros, Qr8 Health
Stockholder Stock Value: Hologram Consultants, Surgical Information Sciences, CereGate

**Nagy Mekhail, MD, PhD**
Consultant/Advisory Board Income: Abbott, Boston Scientific, Relievant Medsystems, Vivex therapeutics and Solis therapeutics

**Maarten Moens, MD, PhD**
Speaker Programs: Medtronic, Nevro
Consultant/Advisory Board Income: Medtronic
Education/Research Income: Medtronic, Nevro

**Alon Mogilner, MD, PhD**
Consultant/Advisory Board Income: Medtronic, Abbott, Alpha Omega
Education/Research Income: Boston Scientific, Medtronic

**Richard North, MD**
Consultant/Advisory Board Income: The charitable nonprofit Neuromodulation Foundation, of which Dr. North is an unpaid officer, has received grant support and income from industry, including Abbott, Boston Scientific, Medtronic, Nevro, Algostim/Nuvestra, and Stimwave. • Stockholder Stock Value >5%: Stimwave (3-owned by spouse)
Medico-Legal Consulting: Stimwave/Stimrelieve

**Turo Nurmikko, MD, PhD**
Consultant/Advisory Board Income: Nexstim

**Bart Nuttin, MD, PhD**
Speaker Program Income: Medtronic
Intellectual Property: Medtronic
Education/Research Income: Medtronic
**Joseph Pancrazio, PhD:** Nothing to Disclose

**Erika Petersen, MD**  
Speaker Programs: Medtronic, Nevro  
Consultant/Advisory Board Income: Abbott, Medtronic, Nevro  
Education/Research Grants: Medtronic, Nevro, Neuros, ReNeuron  
Stock Options: SynerFuse

**Fabian Piedimonte, MD**  
Speaker Programs: Abbott, Medtronic  
Consultant/Advisory Board Income: Abbott, Medtronic

**Julie Pilitsis, MD, PhD**  
Speaker Programs: Boston Scientific, Medtronic, Abbott  
Consultant / Advisory Board: Boston Scientific, Medtronic, Abbott, Karuna Labs, Nevro, Saluda Medical, TerSera; AIM Medical Robotics  
Education / Research: Boston Scientific, Abbott, Medtronic, Nevro, TerSera; NIH  
Stock Options: Karuna Labs, AIM Medical Robotics

**Heather Pinckard-Dover, MD:** Nothing to Disclose

**Ela Plow, PhD, PT:** Nothing to Disclose

**Lawrence Poree, MD PhD**  
Consultant/Advisory Board Income: Medtronic, Nalu Medical, Saluda Medical  
Education/Research Income: Abbott, Saluda Medical  
Stock Options: Nalu, Saluda Medical

**Nader Pouratian, MD, PhD**  
Speaker Programs: BrainLab  
Consultant/Advisory Board Income: Abbott, Boston Scientific  
Education/Research Income: Abbott, Boston Scientific, Medtronic

**Joshua Prager, MD, MS:** Nothing to Disclose

**James Rathmell, MD:** Nothing to Disclose

**Ahmed Raslan, MD:** Nothing to Disclose

**Richard Rauck, MD**  
Speaker Programs: BDSI  
Consultant / Advisory Board: Boston Scientific, Mainstay, BDSI, Saluda  
Education/Research Income: Boston Scientific, Medtronic, Nevro, Bioness, Biogen, Seikagaku, Mainstay, Saluda, SPR Therapeutics

**Ali Rezai, MD:** Nothing to Disclose

**Erich Richter, MD:** Nothing to Disclose
**Edgar Ross, MD**  
Speaker Program: Bioness, Medtronic  
Consultant/Advisory Board Income: Bioness, Biotronik, Medtronic  
Education/Research Income: Mainstay Medical, Medtronic

**Oren Sagher, MD:**  
Stockholder: Digital Surgery Systems

**Damianos Sakas, MD:** Nothing to Disclose

**Michael Saulino, MD, PhD**  
Speaker Program Income: Medtronic, Flowonix, Ipsen, SPR Therapeutics  
Consultant/Advisory Board Income: Medtronic  
Education/Research Income: Medtronic, Bioness

**Ashwini Sharan, MD, FACS**  
Speaker Program: Medtronic, Cerebral Therapeutic, Neuspera, Neurotargetting  
Consultant/Advisory Board: Medtronic  
Company Employee: Cerebral Therapeutic, Neuspera, Neurotargetting  
Stockholder Stock: Cerebral Therapeutic, Neuspera, Neurotargetting

**Konstantin Slavin, MD**  
Consultant/Advisory Board Income: Boston Scientific, Medtronic, Autonomic Technologies, Bioness, Biotronik, Abbott, Nuvestra, Stimwave  
Stock Options: Stimwave  
Stockholder: Thermaquil  
Education/Research Income: Boston Scientific, Medtronic, Abbott (fellowship support to institution)

**Michael Stanton-Hicks, MBBS, DMED:** Nothing to Disclose

**Monique Steegers, MD, PhD:** Nothing to Disclose

**Takaomi Taira, MD**  
Speaker Program Income: Insightec

**Rod Taylor, MSc, PhD:** Nothing to Disclose

**Simon Thomson, MBBS**  
Speaker Programs: Boston Scientific  
Consultant/Advisory Board: Boston Scientific
**Ricardo Vallejo, MD, PhD**
Speaker Programs: Avanos, Medtronic
Consultant/Advisory Board: Medtronic
Company Employee: CEO of SGX Medical. No commercial product. Performing clinical research
Intellectual Property: No royalties from any IPs
Education/Research Grants: SGX Medical (I am the CEO) sponsors animal research
Stockholder: SGX medical. I am CEO and shareholder. No commercial product.
Stock Options: SGX medical.

**Maarten van Kleef, MD, PhD:** Nothing to Disclose

**Jan Vesper, MD, PhD**
Speaker Programs: Abbott, Autonomic Technologies, UniQuire
Consultant/Advisory Board: Abbott, Boston Scientific
Education/Research Grants: Medtronic - Devices for a funded multicenter RCT study

**Osvaldo Vilela Jr., MD, PhD**
Honoraria for educational activities from Medtronic and travel grants from the local representative of Abbott.

**Kristl Vonck, MD, PhD**
Speaker Programs: LivaNova/Cyberonics
Consultant/Advisory Board: LivaNova/Cyberonics, Synergia Medical

**Eric Wassermann, MD:** Nothing to Disclose

**Christopher J. Winfree, MD:** Nothing to Disclose