



National  
Multiple Sclerosis  
Society

## Difficult Case Webinars

### 2018-2019 Faculty



**Elliot Frohman, MD, PhD, FANA, FAAN– Director-** Dr. Frohman is the inaugural Director of the Multiple Sclerosis & Neuroimmunology Center, at the new Dell Medical School at the University of Texas at Austin. He was the Founding Director (1995-2016) of the MS and Neuroimmunology Program, and the Clinical Center for MS in the Department of Neurology and Neurotherapeutics at the University of Texas Southwestern Medical Center in Dallas. Since his arrival at UT Southwestern in 1995, Elliot along with his wife and principal collaborator Teresa Frohman (they have co-authored over 100 peer-review manuscripts) built one of the largest and most significant MS centers anywhere.

Dr. Frohman was born in New York City and received his undergraduate training in biochemistry and cell biology at the University of California at San Diego, and later completed the Physician Scientist Training Program for his MD and PhD degrees at the University of California at Irvine. Dr. Frohman subsequently completed his residency and fellowship training in the Department of Neurology at the Johns Hopkins University School of Medicine and the Johns Hopkins Hospital (1991-1995), where he also served as Chief Resident from 1993-1994.

Dr. Frohman has published over 300 peer-review articles, book chapters and monographs, and serves as a principal investigator on a number of MS clinical trials. Dr. Frohman, in conjunction with his two closest research colleagues for more than 12 years, Dr. Peter Calabresi (Director, MS Program at Johns Hopkins) and Dr. Laura Balcer (Head of Neuro-Ophthalmology and Vice Chair of Neurology at NYU), were awarded the 2015 National Multiple Sclerosis Society Barancik Prize for Innovation in MS Research. The ‘trio’ have been focused on the construct that the eye can be utilized as a ‘window’ into the central nervous system of neurodegenerative disorders for both elucidating mechanisms of disease, but also for the identification and monitoring of protective, performance enhancing, preventative, and even restorative properties of novel neurotherapeutic agents. In this way, the collaborative team envisions the eye as a vertically-integrated window, ideally suited for dissecting mechanisms underlying neurodegenerative disorders, and for the purpose of translation of such advanced insights into innovative treatments for our deserving patients; for MS in particular, but for neurodegenerative disorders in general.

In 2017, Dr. Frohman was among 16 worldwide elected to the Johns Hopkins Society of Scholars which recognizes former Johns Hopkins trainees who have made significant contributions to patient care, education and discovery at other institutions. Dr. Frohman and Teresa have four children and live in Austin Texas.



**Teresa Frohman, PA– Managing Director**, is currently the Lead Physician Assistant, Associate Professor of Neurology, and Managing Director of the MS and Neuroimmunology Center at Dell Medical School at the University of Texas at Austin.

Teresa received her undergraduate degree in Psychology at the University of California at Irvine, and completed the Physician Assistant Program at UT Southwestern Medical Center. Mrs. Frohman has published over 100 peer-review articles, book chapters and monographs in the areas of neuroimmunology, brain imaging, neuro-ophthalmology, neuro-otology, and neuro-urology, and is a principal investigator on a number of investigator-initiated MS clinical investigations focused on the utilization of the visual system as a model for understanding the central nervous system in MS. In 2000, Mrs. Frohman in collaboration with her husband Dr. Elliot Frohman authored a United States Congressional Bill, which was sponsored by Senator Kay Bailey Hutchison (R-Texas), to establish a comprehensive Multiple Sclerosis Treatment Training Program at the University of Texas Southwestern School of Medicine, in collaboration with the National MS Society. To date, the Program has trained over 1,200 neurologists and neurology resident trainees from all 50 States and was expanded to include advanced training for nurses, social workers/case managers, and physician extenders in 2009. Under Mrs. Frohman’s leadership and mentorship, innumerable students, residents, fellows, faculty, community neurologists, nurses, social workers and physician extenders have chosen to pursue careers as MS clinicians and clinical investigators. Teresa and Elliot Frohman have four children, and live in Austin Texas.



**Rany Aburashed DO**, is the inaugural director of MS at the Institute for Neurosciences and Multiple Sclerosis at Memorial Healthcare in Michigan. He serves as an assistant professor in the department of Neurology and Ophthalmology at Michigan State University and as the director for the community outreach clinic. Dr. Aburashed holds a community educator faculty appointment at Central Michigan University College of Medicine as well.

Dr. Aburashed is a board certified neurologist and has participated as principal investigator in numerous clinical trials in MS. He is recognized for his clinical expertise in demyelinating disorders of the central nervous system and comprehensive approach to MS care. His areas of interest include the clinical utility of atrophy as a biomarker in MS and the role of the gut microbiome in inflammatory disorders of the central nervous system. He is recognized for his unique teaching approach to neuroimmunology and has lectured internationally and nationally in this regard.



**Robert L. Archer, MD** is a Professor of Neurology at the Jackson T. Stephens Spine and Neurosciences Institute at the University of Arkansas for Medical Sciences (UAMS). He works hard to provide relief to patients dealing with neurological challenges from multiple sclerosis (MS).

He completed his medical degree at UAMS and later served a neurology residency here as well. Dr. Archer is board certified in Neurology by the American Board of Psychiatry and Neurology.



**Shila Azodi, MD** completed her medical training at the Texas Tech University Health Sciences Center. During medical school she participated in the Howard Hughes Medical Institute Research Scholars Program and worked with Dr. Robert Wenthold on NMDA receptor trafficking proteins.

She completed residency training at the Dell Medical School, Austin, TX where a fascinating case of anti-NMDA receptor encephalitis and the mentorship of Dr. Edward Fox motivated her to pursue neuroimmunology fellowship. She received Neurology Training Teaching awards as well as the Horatio Aldredge

Award for Excellence in Neurology Residency as chief resident.

Currently she is completing a neuroimmunology fellowship at the National Institutes of Health in Bethesda, MD where she worked with principal investigator Dr. Steven Jacobson to investigate patterns of spinal cord atrophy on MRI in neuroinflammatory disorders. At the completion of fellowship she is planning to join the Food and Drug Administration as a medical officer.



**Laura J. Balcer, MD, M.S.C.E.**, is a neurologist and epidemiologist at the NYU School of Medicine. Dr. Balcer is Professor and Vice Chair of Neurology, Population Health and Ophthalmology. Dr. Balcer and her colleague, Dr. Steven Galetta, Philip K. Moskowitz Professor and Chair of Neurology, lead national collaborative clinical and research efforts in the neuro-ophthalmology of MS and sports-related concussion.

Dr. Balcer received her medical degree in 1991 from the Johns Hopkins University School of Medicine. Following residency in neurology at the University of Pennsylvania, Dr. Balcer's postgraduate training included a clinical fellowship in neuro-ophthalmology in 1996 and a Master's Degree in Clinical Epidemiology at Penn in 2000. During the past 15 years, Dr. Balcer's collaborative clinical and research teams have focused on the development of visual function tests and other outcomes for clinical trials in MS. More recently Dr. Balcer's team's expertise and paradigms from MS research have been sought to examine new vision-based tests and other tools for concussion diagnosis and management.



**Bridget Bagert, MD, MPH** founded the Ochsner MS Center in 2010 when she joined Ochsner Health System. She completed her neurology residency at Mount Sinai School of Medicine in New York City in 2001. After residency, Dr. Bagert pursued a two-year post-doctoral fellowship in MS and Neuroimmunology at Oregon Health and Sciences University in Portland followed by a Master Degree in Public Health from Harvard.

Dr. Bagert is currently is the principal investigator of five MS clinical research trials at Ochsner. She has partnered with researchers at the University of Queensland in Australia to investigate antibody function in the spinal fluid and blood of patients living with MS. She currently serves as the Director of Research in Neurology at Ochsner.



**Brenda Banwell, MD MD, FRCPC, FAAN** currently serves as the Chief of Child Neurology and Professor of Neurology and Pediatrics at The Children's Hospital of Philadelphia, Perelman School of Medicine, University of Pennsylvania. Her clinical and research focus is in the area of pediatric MS. She and her co-PIs lead a multi-site prospective study of clinical outcomes, genetics, immunology and neuroimaging features of MS in children. She also serves as the Research Chair of the International Pediatric MS Study Group.

Dr. Banwell studied medicine at the University of Western Ontario, followed by residencies in Pediatrics at the University of Western Ontario and Child Neurology at the University of Toronto. She then pursued a Neuromuscular Fellowship at the Mayo Clinic. She was appointed as an Assistant Professor of Pediatrics and Neurology at The Hospital for Sick Children, University of Toronto in 1999, and became Full Professor prior to relocating to The Children's Hospital of Philadelphia in 2012. She remains as Adjunct Senior Scientist in the Research Institute at The Hospital for Sick Children.



**Michael J. Bradshaw, MD** graduated *summa cum laude* with a Bachelor of Science in Cell and Molecular Biology with Thesis Honors from the University of Northern Colorado. He earned his Doctor of Medicine with highest honors from Mayo Clinic School of Medicine in Rochester, MN before completing his internship and neurology residency at Vanderbilt University Medical Center. He completed a fellowship in neuroimmunology and autoimmune neurology at the Partners MS

Center, Brigham and Women's Hospital and Massachusetts General Hospital .

Dr. Bradshaw serves on the editorial board of *Continuum: Lifelong Learning in Neurology* and has over 40 publications. His clinical research is focused on neurosarcoidosis and encephalitis. He is a clinical neurologist at Billings Clinic in Montana. Although still working to acquire the grace of humility, Dr. Bradshaw is humbled by his wife Liz and his amazing son, William. He was inspired to become a physician by Dr. Charles R. Tweedy, Jr. and Dr. Anne M. Kanard, to whom he owes his life—their compassion is a candle multiplied by giving light and warmth to others.



**Kathleen Costello, MS, ANP-BC** is Associate Vice President of Healthcare Access in the Advocacy, Services and Research Department of the National Multiple Sclerosis Society. As such she leads the Society Access to Quality Healthcare strategy and works with a diverse team of experts to reduce barriers to care, close care gaps and develop collaborative relationships with healthcare professionals. In addition, she co-leads the Society wellness initiative that focuses on wellness information, resources, research and programs.

Ms. Costello serves on the Consortium of MS Centers MS Specialist Certification Committee. She is a past president of the International Organization of Multiple Sclerosis Nurses. Ms. Costello has written and lectured extensively on MS and MS care. Ms. Costello received her BSN and MS from the University of Maryland. She is certified as an Adult Nurse Practitioner, Multiple Sclerosis Nurse and Multiple Sclerosis Specialist.



**Scott L. Davis, PhD** is an Associate Professor at Southern Methodist University. He is the Director of both the Integrative Physiology Research Laboratory and Applied Physiology Teaching Laboratory in the Department of Applied Physiology and Wellness within the Simmons School of Education and Human Development at SMU. He is also an adjunct faculty member in the Department of Neurology and Neurotherapeutics at the University of Texas Southwestern Medical Center Dallas.

Dr. Davis earned his PhD in Exercise and Sport Science from the University of Utah in 2003. He completed a post-doctoral fellowship in Integrative Physiology at the University of Texas Southwestern Medical Center Dallas and the Institute for Exercise and Environmental Medicine at Texas Health Presbyterian Hospital Dallas in 2006. The major focus of his research currently is autonomic dysfunction specifically related to cardiovascular and thermoregulatory control in individuals with MS. These research projects have profound implications for understanding both the biology/physiology of MS and developing potential treatments/interventions that will benefit the overall health and well-being of individuals with MS.



**Kent Ellington, MD** trained at Baylor College of Medicine for both medical school and residency, finishing as chief resident in 1995. He worked for Austin Neurological Clinic from 1995-2010 as an outpatient general neurologist, then became the first neuro-hospitalist in Austin in 2000.

In 2011 he joined Seton Brain and Spine and became the program director for the residency program there. He continues as the program director for the University of Texas at Austin Dell Medical School Neurology Residency.



**Edward J. Fox, MD, PhD, FAAN** is the director of the MS Clinic of Central Texas, and is the founding partner of Central Texas Neurology Consultants in Round Rock, Texas. After receiving a Bachelors Degree at Washington University in St. Louis, he completed the Medical Scientist Training Program for his MD, PhD and his Neurology residency at Baylor College of Medicine in Houston. His PhD in immunology was awarded for the thesis “Growth Requirements of Human Suppressor T Lymphocytes.”

Since starting a private neurology practice in the Austin area in 1992, he has been involved in numerous MS research protocols and has spoken internationally. Dr. Fox is a Fellow of the American Academy of Neurology. His clinic has been designated a Center for Comprehensive MS Care by the MS Society. He is a longstanding member of the Consortium of MS Centers, and is the President-Elect of the Texas Neurological Society. He has an appointment as Clinical Associate Professor of Neurology at the University of Texas Dell Medical School at Austin.



**Léorah Freeman, MD, PhD** is an Assistant Professor of Neurology in the MS Research Group and the MRI Analysis Center at University of Texas Health Science Center at Houston. Dr. Freeman received her MD as well as her PhD in neurosciences from Université Pierre et Marie Curie in Paris, France.

Following a residency in neurology, she completed a 2-year clinical fellowship specializing in MS and other neuroimmunological disorders of the central nervous system at La Pitié Salpêtrière hospital in Paris. Dr. Freeman went on to complete her post-doctoral research training in neuroimaging at the Brain and Spine Institute in Paris, France and subsequently in the Department of Neurology at McGovern Medical School in Houston, Texas. Her research has been supported by the French National Institute of Health as well as the National MS Society.

Dr. Freeman’s current research focuses on the application of advanced imaging techniques to explore and delineate the mechanisms driving disability progression in MS. She is also deeply committed to the development of new technology to bring state-of-the-art MRI analysis to the bedside. Dr. Freeman is the medical director of the Moving Stronger program, an initiative developed in collaboration with the YMCA to improve the long-term outcomes of people living with MS by helping them become and stay active consistently. A native Parisian, Dr. Freeman is happy to now call Texas home. She lives in Houston with her husband and four children.



**Steven Galetta, MD** is currently the Philip K. Moskowitz, MD, Professor of Neurology and Ophthalmology, and Chair of the Department of Neurology at the NYU Langone Medical Center. Formerly, he was the Associate Dean of Admissions for the University of Pennsylvania School of Medicine. He also served as the Director of Neurological Training and Neuro-ophthalmology at Penn for over two decades.

Dr. Galetta received his MD from Cornell University Medical College. He then completed his neurology residency at the Hospital of the University of Pennsylvania and his neuro-ophthalmology fellowship at the Bascom Palmer Eye Institute, University of Miami.

Dr. Galetta currently serves on the editorial board for the journals *Neurology*, and the *Journal of Neuro-ophthalmology*. He is co-author of the textbook, *Neuro-ophthalmology: Diagnosis and Management*. Dr. Galetta has been involved in various capacities in a large number of clinical trials and has over 290 original publications concerning clinical, radiologic and research aspects of MS, sports related concussion and neuro-ophthalmology.



**Jeffrey Gelfand, MD** is an Assistant Professor of Clinical Neurology at UCSF and directs the UCSF MS and Neuroinflammation Center Clinical Fellowship training program. He specializes in MS and a wide range of neuroinflammatory disorders. Dr. Gelfand conducts clinical research focused on advancing new treatments for neuroimmunological diseases and restoring neurological function.

He received his MD from Harvard Medical School. He completed an internship in internal medicine, residency in neurology and subspecialty fellowship in MS/neuroimmunology, all at UCSF. Dr. Gelfand went on to earn a Masters in Advanced Study in clinical research at UCSF. He is board-certified in neurology. Dr. Gelfand has authored or coauthored >35 peer-reviewed manuscripts in addition to several reviews, editorials and book chapters.

Dr. Gelfand is a Fellow of the American Academy of Neurology (FAAN), has directed several AAN continuing medical education courses and serves as a member of the AAN Clinical Research Subcommittee.



**Andrew D. Goodman, MD** is Professor of Neurology, Chief of the Neuroimmunology Division, and Director of the MS Center at the University of Rochester. Dr. Goodman is a graduate of Rutgers University and the Rutgers New Jersey Medical School. He did residency training in internal medicine and neurology at Mt. Sinai Medical Center in New York City. He completed a research fellowship in the Neuroimmunology Branch at the National Institutes of Health under the mentorship of Drs. Dale McFarlin and Henry McFarland.

Dr. Goodman's interests include clinical and experimental therapeutics research. He has been the lead investigator (or a member of the steering committee) for various national and international clinical trials of new therapies for MS including natalizumab and dalfampridine. He is currently a member of the protocol steering committee for the "SPRINT MS" study of ibudilast in secondary progressive MS sponsored by NeuroNext (NIH) and the National MS Society. Dr. Goodman is the Rochester co-PI of a project that plans to perform a phase 1, first in man, study testing the safety of transplanting oligodendrocyte progenitor cells into patients with progressive MS.

Dr. Goodman has been a member of the International Advisory Committee on Clinical Trials in MS and the ACTRIMS board of directors. He has served the National MS Society as Chair of the Long-term Care Committee and a member of the Executive Committee of the National Clinical Advisory Board. He is a past Chair of the MS Section of the American Academy of Neurology and is the current president of the NY State Neurological Society.



**Ari J. Green, MD** is the Chief of the Division of Neuroinflammation and Glial Biology at the University of California at San Francisco, or UCSF (formerly the Division of Neuroimmunology). He is the Debbie and Andy Rachleff Distinguished Professor and Medical Director of the MS and Neuroinflammation Center there. He is also an Associate Professor of Ophthalmology and the co-Founder of the Small Molecule Remyelination Program at UCSF.

Dr. Green is a graduate of Duke University School of Medicine and the UCSF Master's In Clinical Research Program. He completed his residency at UCSF where he was Chief Resident in 2005. He is a former Harry Weaver Neuroscience Scholar. His research is supported by the National Institutes of Health, That Man May See, and the Hilton Foundation as well as private philanthropy. He was previously supported by the Howard Hughes Medical Institute and the National MS Society.



**Stephen L. Hauser, MD** is the Robert A. Fishman Distinguished Professor of Neurology and Director of the Weill Institute for Neurosciences at the University of California, San Francisco. A neuroimmunologist, Dr. Hauser's research has advanced our understanding of the genetic basis, immune mechanisms, and treatment of MS. Dr. Hauser is a fellow of the American Academy of Arts and Sciences and the American Academy of Physicians, and is a member of the National Academy of Medicine. Previously chairman of the Department of Neurology at UCSF for 25 years, he has also served as President of the Medical Staff at UCSF, editor-in-chief of *Annals of Neurology*, President of the American Neurological Association; he also served the Obama administration as a member of the Presidential Commission for the Study of Bioethical Issues.

Dr. Hauser is a graduate of MIT (Phi Beta Kappa) and Harvard Medical School (Magna Cum Laude). He trained in internal medicine at the New York Hospital–Cornell Medical Center, in neurology at the Massachusetts General Hospital, and in immunology at Harvard Medical School and the Institute Pasteur in Paris, France, and was a faculty member at Harvard Medical School before moving to UCSF.



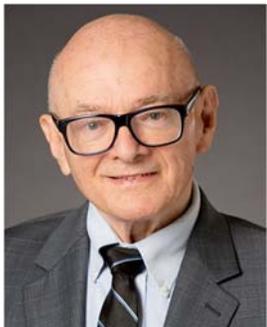
**Joshua Katz, MD** is the Co-Director of the Elliot Lewis Center and is a nationally recognized expert on multiple sclerosis and transverse myelitis. He participates in many clinical trials investigating new treatments for MS and sees patients in consultation from the entire New England area and beyond.

Dr. Katz is an Associate Professor of Neurology at Tufts Medical School, a board certified neurologist since 1999, and member of the American Academy of Neurology. He is chairman of the clinical advisory committee of the New England Chapter of the National MS Society, and is a member of the Consortium of MS Centers. He has received multiple awards from Tufts Medical School for his skill and dedication to teaching. He is recognized for his sophisticated approach to diagnosis and treatment of neurological diseases, and for his focus on comprehensive care.



**Eric Kildebeck, MD, PhD** earned a BS in biology from The University of Texas at Dallas in 2005 as part of the inaugural cohort of the Eugene McDermott Scholars Program. He earned an MD/PhD in cancer biology and gene therapeutics from the University of Texas Southwestern Medical School in 2016.

His research centers on therapeutic applications of gene editing for neurologic and autoimmune diseases. Dr. Kildebeck's laboratory works to re-engineer immune cells including T regulatory cells to inhibit autoimmune activity and restore immune tolerance for endogenous, 'self', structures. Through permanent modification of the hematopoietic stem cells that form the immune system, Dr. Kildebeck aims to develop one-time, lifelong treatments for diseases with a specific focus on MS.



**Steve Kornguth, PhD** took his BA at Columbia College in New York City and his Ph.D. in biochemistry at the University of Wisconsin- Madison. He was Professor of Neurology and of Biomolecular Chemistry at the University of Wisconsin between 1962 and 1998. His research during this period related to neural development, biological basis of neurological disorders, autoimmune diseases and development of binding agents and platforms for sensors and magnetic resonance image contrast materials.

Steve served as Director of Neuroscience programs at the National Science Foundation for a two year period. In 1998 he moved to Texas and worked at the University of Texas-Austin where he directed the Biological and Chemical Countermeasures Program and the Sustaining and Enhancing High OpTempo Performance of Soldiers. He is currently a research professor of neurology at the Dell Medical School at the University of Texas Austin. Steve was a member of the Army Science Board 2004-13 and of the BSEG 2008-present.



**Ellen Lathi, MD** is the Co-Director of the Elliot Lewis Center and a well-known speaker on treatment issues and wellness in MS. She participates in numerous clinical trials at the Center related to the treatment of MS, and she is widely recognized for her clinical expertise and comprehensive, personalized approach to patient care. She believes that the relationship between patient and physician should be an intimate one, where there is an ongoing dialogue with in depth patient education.

Dr Lathi, a board certified neurologist since 1980, has been recognized as a teacher of residents and medical students at Tufts University. She also directs the MS Service Dog Program, sponsored by the NMSS, in which Labrador retrievers are trained to assist patients with multiple sclerosis. She is a member of the American Academy of Neurology, Chairman of the Clinical Advisory Committee of the Greater New England Chapter of the National MS Society, and a member of the Consortium of MS Centers.



**Michael Levy, MD, PhD**, is an Assistant Professor of Neurology at the Johns Hopkins University and Director of the Neuromyelitis Optica Clinic. He completed the MD/PhD program at Baylor College of Medicine in Houston, TX with a focus on neuroscience.

Dr. Levy came to Johns Hopkins in 2004 for a one-year internship in the Osler Medicine program, then a three- year residency in the Hopkins neurology program and a two year fellowship in Neuroimmunology. In 2009, Dr. Levy was appointed to the faculty as Assistant Professor.

Dr. Levy specializes in taking care of patients with rare neuroimmunologic diseases including neuromyelitis optica, transverse myelitis, recurrent optic neuritis. In the laboratory, Dr. Levy's research focus is on the development of animal models of neuromyelitis optica with the goal of identifying new targets for therapies.



**Doris Lill, Sr. Manager of Access to Care and Operations Director**, graduated from Florida State University in 1999 with a degree in communications and journalism. In 2001 Doris began her career at the Mid Florida Chapter of the National MS Society in fundraising, eventually transitioning to developing programs and services.

In 2012 Doris left the chapter and began developing programs nationwide for the Society eventually becoming the Sr. Manager of Access to Care. Doris helps facilitate all aspects of the Fellows Difficult Case Webinar series and resides in Tampa, Florida.



**Robert P Lisak, MD, FRCP (E), FAAN, FANA** is Parker Webber Chair in Neurology, Professor of Neurology and Professor of Microbiology, Immunology and Biochemistry at Wayne State University School of Medicine. He served as Chair of Neurology from 1987-2012 and as Neurologist-in-Chief of the Detroit Medical Center from 1987-2011 and Chief of Neurology at Harper University Hospital from 1987-2012.

Dr. Lisak received his undergraduate degree from the University College of Arts and Sciences of New York University and his MD from the College of Physicians and Surgeons of Columbia University. He trained in Internal Medicine at Montefiore Hospital and Bronx Municipal Hospital (Albert Einstein College of Medicine of Yeshiva University) and in Neurology and Allergy and Immunology at the Hospital of the University of Pennsylvania. Dr. Lisak was a Research Associate at the National Institute for Mental Health in Bethesda. He was a faculty member in Neurology and in the Immunology Graduate Group at Penn as well as an Associate Member of the Institute of Neuroscience before becoming chair at Wayne State University.

Dr. Lisak as served on multiple grant review committees and editorial boards and was the Editor-in-Chief of the Journal of the Neurological Sciences from 1997-2013. He has been an invited speaker in the field of Neuroimmunology on numerous occasions and it the author or co-author of 233 original papers, 184 chapters, books, reviews and signed editorials and 319 published abstracts. Dr. Lisak has won teaching awards from students and residents/fellows at both the University of Pennsylvania and Wayne State University.



**Ashlea Lucas, PA-C** is a physician assistant with the MS and Neuroimmunology Center at Dell Medical School at the University of Texas at Austin.

Ashlea received her undergraduate degree in Biology at the University of Texas Arlington in 1996 and completed the Physician Assistant program at UT Southwestern Medical Center in 1999. Since that time, she has been employed in a variety of areas, but has enjoyed assisting in the care and management of neurology patients since 2007. She has worked both in the inpatient and outpatient neurology settings and has more recently transitioned to the MS and Neuroimmunology Center in an effort to deepen her knowledge and understanding of caring for this special population of patients.



**Esther Melamed, MD** completed her MD PhD training at UCLA, and Neurology residency and Neuro-Immunology Fellowship at Stanford, where she served as the Chief Resident of Education.

Dr. Melamed is currently Assistant Professor at UT Austin Dell Medical School Neurology Department. She oversees the Seton Brain and Spine Neuro-Immunology clinic in Austin, directs research in MS and Neuro-Immunology lab at UT Austin, and enjoys teaching medical students and residents at the Dell Medical School.



**Ethan Meltzer, MD** was first drawn to neurology after spending a summer working on traumatic brain injury research at UT Southwestern. His interest in neurology was reaffirmed during medical school, first during a neuroanatomy course and then during ward rotations. He became involved in clinical research at the MS center, looking at loss of function in retinal pathways in patients who had prior episodes of optic neuritis.

Dr. Meltzer completed his neurology residency at the Brigham and Women's and Mass General Hospitals combined program. Dr. Meltzer is currently an MS fellow at the Dell Medical School in Austin.



**Ellen M. Mowry, MD, MCR** is an Associate Professor of Neurology and Epidemiology at Johns Hopkins University. She completed her undergraduate degree in biology at Georgetown University, medical school at the University of Rochester, internship and neurology residency at the University of Pennsylvania, and a fellowship in MS with a master's degree in clinical research at the University of California, San Francisco.

Her research focuses on environmental factors that influence the risk and prognosis of MS as well as on improving outcome measures for use in the clinic and in clinical trials. She is also Principal Investigator (PI) or Co-PI of several investigator-initiated trials, including investigations of vitamin D for MS, intranasal insulin for cognitive impairment in MS, and the Traditional vs. Early Aggressive Therapy for MS (TREAT-MS) trial.



**Ram N. Narayan, MD** is a neurologist in the Multiple Sclerosis Program and an assistant professor of neurology in the Department of Neurology at Barrow Neurological Institute. He is certified in the evaluation and management of neuroimmunological disorders. Dr. Narayan's expertise includes the diagnosis and treatment of MS, neuromyelitis optica spectrum disorders, neurosarcoidosis, transverse myelitis, autoimmune encephalitis, and other immune-mediated and infectious disorders of the nervous system.

Dr. Narayan earned his medical degree from the PSG Institute of Medical Sciences and Research in Tamil Nadu, India. He completed his neurology residency at the University of Texas Southwestern Medical Center. He also completed a combined fellowship in adult and pediatric neuroimmunology at the University of Texas Southwestern Medical Center and the Johns Hopkins University School of Medicine. He has additional training in vestibular neurology from Johns Hopkins and in neuroinflammatory disorders from the National Institutes of Health. Dr. Narayan's research interests include developing clinical trials for autoimmune encephalitis, studying the effects of immunomodulatory medications in carcinogenesis, and studying spinal cord imaging in neuroimmunological disorders.



**Avi Nath, MD, PhD** received his MD degree from Christian Medical College in India in 1981 and completed a residency in Neurology from University of Texas Health Science Center in Houston, followed by a fellowship in Multiple Sclerosis and Neurovirology at the same institution and then a fellowship in Neuro-AIDS at NINDS. He held faculty positions at the University of Manitoba (1990-97) and the University of Kentucky (1997-02).

In 2002, he joined Johns Hopkins University as Professor of Neurology and Director of the Division of Neuroimmunology and Neurological Infections. He joined NIH in 2011 as the Clinical Director of NINDS, the Director of the Translational Neuroscience Center and Chief of the Section of Infections of the Nervous System. His research focuses on understanding the pathophysiology of retroviral infections of the nervous system and the development of new diagnostic and therapeutic approaches for these diseases.



**Amit Bar-Or, MD, FRCPC** is the Melissa and Paul Anderson Professor of Neurology and Presidential Endowed Chair at the Perelman School of Medicine, University of Pennsylvania where he Directs the Centre for Neuroinflammation and Experimental Therapeutics and serves as Chief of the Division of MS and Related Disorders. He is former Professor in the Department of Neurology and Neurosurgery, and Associate Director of the Montreal Neurological Institute and Hospital, McGill University.

Dr. Bar-Or's clinical focus is MS and related disorders in both adults and children for which he is cross-appointed at the Children's Hospital of Philadelphia (CHOP) and co-directs the age-span program in MS with long-standing collaborator Dr. Brenda Banwell. He runs a cellular and molecular Neuroimmunology lab studying principles of immune regulation and immune-neural interaction in the context of injury and repair of the human central nervous system. He is past President of the Canadian Network of MS Clinics; past member of the Board of Directors, and ongoing member of the Education Committee, of the Federation of Clinical Immunology Societies; current member of the Board of Directors of the Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS) and on the Steering Committee of the NIH Immune Tolerance Network. Dr. Bar-Or is also a long-standing member of the Scientific Advisory Board, and now serving as President, of the International Society of Neuroimmunology.



**Robert Pace, MD** is a neurologist who specializes in MS and neuroimmunology at the Memorial Institute for Neurosciences and Multiple Sclerosis in Michigan, where he also serves as fellowship director. He received his medical degree from the Ohio State University and completed residency training at the University of Michigan. He completed a fellowship in Neurology and Neuroimmunology at the University of Michigan, where he then stayed on as faculty. During this time he was given several awards for excellence in teaching, and continues to find teaching to be one of the most rewarding aspects of his career.

Dr. Pace has been involved in numerous clinical trials for MS, and his research interests include early induction therapy in MS, measurement of neuronal atrophy in demyelinating disease, and advanced neuroimaging techniques. He is fascinated with the changing landscape of MS treatments and the associated therapeutic challenges. Despite these challenges, he contends that medical decision-making is far less complicated than figuring out how to get his three young children to go to bed. Aside from neurology and his family, he enjoys playing music, woodworking, and drawing.



**David Paydarfar, MD** is Professor and inaugural Chair of the Department of Neurology at the Dell Medical School at The University of Texas at Austin. He previously served as Professor and Executive Vice Chair of the Department of Neurology at the University of Massachusetts Medical School, and as Associate Faculty of the Wyss Institute for Biologically Inspired Engineering at Harvard University. Paydarfar received his B.S. in Physics (summa cum laude) from Duke University and M.D. from the University of North Carolina at Chapel Hill, and completed his residency training in neurology at the Massachusetts General Hospital and Harvard Medical School. He is a Fellow of the American Neurological Association and an Investigator of the Clayton Foundation for Research.

Paydarfar's clinical research program seeks to develop novel biosensors, signal-processing algorithms, and user interfaces that will enable clinicians and researchers to track and predict the health of individual patients as well as entire populations. Paydarfar's basic research program seeks to understand mechanisms underlying disease states associated with abnormal behavior of neural oscillators, such as apnea, circadian dysrhythmias, and epilepsy, as well as the co-ordination of pacemakers with other physiological and behavioral functions. His research is funded by the NIH, NSF, and the Clayton Foundation for Research.



**Sara Qureshi, MD** is the director of the Billings Clinic. She graduated from the King Edward Medical College in Lahore Pakistan and completed her residency in neurology at Albert Einstein College of Medicine and Beth Israel Medical Center.

Most recently, Qureshi completed a fellowship in neuroimmunology and MS from the University of Texas Southwestern in Dallas, TX.

Prior to joining the Billings Clinic, she practiced at Mount Sinai School of Medicine with Aaron Miller, MD and Fred Lublin, MD. She's currently the PI for a PCORI comparative effectiveness trial.



**Danny Reich MD, PhD** is Senior Investigator at NIH/NINDS, where he directs the Translational Neuroradiology Section and leads clinical studies focusing on multiple sclerosis (MS). He studied math and physics at Yale and earned his MD from Cornell and his PhD in neurophysiology from The Rockefeller University. His training includes a fellowship in diagnostic neuroradiology and residencies in radiology and neurology at Johns Hopkins.

He is a founder of the North American Imaging in MS cooperative and serves on the Advisory Committee of the Americas Committee for Treatment and Research in MS and the Scientific Advisory Board of the Race to Erase MS. He is an elected member of the American Society of Clinical Investigation, the 2015 winner of the American Neurological Association's Derek Denny-Brown Young Neurological Scholar Award, the 2016 winner of the National MS Society's Barancik Award for Innovation in MS Research, and a 2017 winner of the NIH Graduate Partnership Programs Outstanding Mentor Award. Research in Dr. Reich's lab develops advanced MRI techniques to understand MS and adapts those techniques for clinical trials and patient care. The lab harnesses noninvasive imaging modalities to dissect biological mechanisms of tissue damage, both by performing longitudinal studies on time scales relevant for disease processes and by examining radiological-pathological correlations in autopsy tissue and animal models. In 2018, Dr. Reich's lab reported that human and nonhuman primates have a lymphatic system in the membranes covering the brain and showed how that system can be imaged noninvasively with MRI.



**Rebecca S Romero, MD** is the founder and director of the MS and Clinical Neuroimmunology Clinic at UT Health at San Antonio where she serves as an Associate Professor in the department of neurology. Dr. Romero completed medical school in 2004 at UT Health San Antonio and completed her neurology residency as chief resident. She then completed a 2-year MS fellowship at the University of Chicago, under the direction of Dr. Anthony Reder.

After fellowship, she returned to Texas and established the first MS Society Comprehensive MS clinic in San Antonio in 2016. She is currently PI in several MS and NMO clinical trials.



**Shiv Saidha, MD** specializes in the diagnosis, management, and treatment of MS, as well as other neuroimmunological disorders of the central nervous system. Dr. Saidha received his medical degree, as well as his postgraduate Doctor of Medicine, from the National University of Ireland, Galway, Ireland. He completed residency training in general internal medicine at Galway University Hospitals, Ireland. Subsequent to this he completed residency training in neurology at Galway, Cork, and Beaumont University Hospitals, Ireland. He then completed three years of specialized fellowship training in neuroimmunology and neuroinfectious diseases at Johns Hopkins University School of Medicine, Baltimore, Maryland.

Dr. Saidha's research interests to date have predominantly focused on the non-invasive interrogation of retinal structures using optical coherence tomography (OCT) in MS, in order to identify and investigate novel outcome strategies for assessing and monitoring neuroprotection and neurorestoration in MS, as well as to further our understanding of the pathobiology of MS, including how retinal pathology in MS may be related to more global central nervous system disturbances. His work to date has been primarily structurally focused (both within the retina using OCT, as well as more globally within the central nervous system through the assessment of brain substructure volumes, diffusion tensor imaging & magnetization transfer ratio metrics within specific pathways in MS). He also has expertise in the functional assessment of the anterior visual pathway in MS through the application of multifocal electroretinography and pupillometry techniques amongst others. He has published first author papers in Lancet, Lancet Neurology, Brain, Neurology, JAMA neurology, Archives of Neurology and Multiple Sclerosis Journal amongst others.



**James Stankiewicz, MD** is an Assistant Professor of Neurology at Harvard Medical School and the Clinical Director of the Partners Multiple Sclerosis Center. He is neurology clerkship director at Brigham and Women's Hospital and co-directs the MS fellowship program at the Partners MS center.

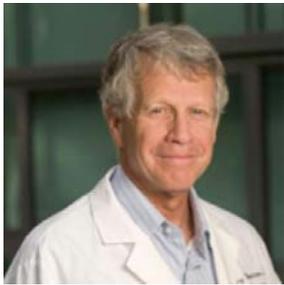
Dr. Stankiewicz received his AB from the University of Chicago in 1993 in the Biological Sciences with a specialization in Neurosciences, graduating Phi Beta Kappa. He earned his MD at Loyola University. He completed medical internship at Mt. Auburn hospital and neurology residency at Tufts. He was a post-doctoral research fellow in the neuroimaging of MS under the guidance of Rohit Bakshi, MD.

He is a topic co-chair American Academy of Neurology's annual meeting scientific program for MS and CNS Inflammatory Disease. He serves on the medical advisory board of The Assistance Fund and co-edits Multiple Sclerosis: Principles of Diagnosis and Treatment. He has been named a Top Doctor by Castle-Connolly and Boston Magazine.



**Adnan M. Subei, DO**, a board-certified neurologist, earned his doctorate in osteopathic medicine at Lake Erie College of Osteopathic Medicine. He completed a fellowship in neuro-visual disorders (clinical neuro-ophthalmology) at Michigan State University Department of Neurology and Ophthalmology, where he also completed his internship and neurology residency. He then pursued a MS Society fellowship with emphasis on neuro-ophthalmology at the Cleveland Clinic Mellen Center for Multiple Sclerosis Treatment and Research.

In 2015, Dr. Subei joined the Memorial Neuroscience Institute and Memorial Physician Group in Hollywood, Florida as the Medical Director for the Multiple Sclerosis Program. In 2017, Dr. Subei was appointed Founding Neurology Residency Program Director for Memorial Healthcare System. Dr. Subei also serves as an affiliate assistant professor at Florida International University and Florida Atlantic University, supervising the neurology clerkship for third year medical students. Dr. Subei's research interests include cultural influences and impact in the management of MS. Other areas of interest include investigating the impact of educational simulations on medical error disclosure and Objective Structural Clinical Examinations.



**Lawrence Steinman, MD** is Professor of Neurology, Neurological Sciences and Pediatrics at Stanford University and Chair of the Stanford Program in Immunology from 2001 to 2011. His research focuses on what provokes relapses and remissions in MS, and on the quest for antigen specific therapy in type 1 diabetes, neuromyelitis optica and myasthenia gravis. Steinman was senior author on the 1992 *Nature* article that led to the drug Tysabri, approved for MS and Crohn's disease.

Dr. Steinman graduated from Dartmouth College, Magna Cum Laude in Physics. His MD is from Harvard Medical School. He was a post-doctoral fellow in chemical immunology fellow at the Weizmann Institute of Science. After neurology residency he remained on the faculty in 1980. He has received numerous honors, including the John M. Dystel Prize in 2004, the Javits Neuroscience Investigator Award from the NINDS twice, the Charcot Prize in MS research, and the Cerami Prize in Translational Medicine. Steinman is a member of the National Academy of Sciences, and the National Academy of Medicine. Dr. Steinman holds 48 patents. He cofounded several biotech companies, including Neurocrine and Tolerion. He was a Director of Centocor from 1988 until its sale to Johnson and Johnson.



**Brian G. Weinschenker, MD** is a neurologist at the Mayo Clinic with specialty interest in MS, neuromyelitis optica and other demyelinating diseases of the central nervous system. He received his medical degree from the University of Manitoba and his residency in neurology at the University of Minnesota, followed by a fellowship in neuroimmunology and demyelinating diseases from the University of Western Ontario.

Dr. Weinschenker is the recipient of the American Academy of Neurology and the National MS Society's John J. Dystel Prize.



**Scott S. Zamvil, MD, PhD**, is a clinical neurologist and immunologist at the University of California, San Francisco who specializes in the care of patients with MS and neuromyelitis optica. Dr. Zamvil was the Principal Investigator for the first placebo-controlled trial testing a statin drug in multiple sclerosis. In his basic science research, Dr. Zamvil investigates the role of B cells and macrophages in the activation of T cells that recognize myelin autoantigens and aquaporin-4 (AQP4), the autoantigen in NMO. He has publications in

*Nature, Nature Medicine, The Journal of Clinical Investigation, The Journal of Experimental Medicine, Annals of Neurology and The Journal of Immunology.*

Dr. Zamvil received his MD and PhD in Medical Microbiology and Immunology from Stanford University, California, where he trained in internal medicine. He completed a residency in neurology at Brigham and Women's Hospital, Boston, Massachusetts, subsequently joining the Harvard neurology faculty. Since 1998, he has been on neurology faculty at UCSF where he is Professor of Neurology. Dr. Zamvil has joint appointments as a faculty member in the Program in Immunology and the Biomedical Sciences Graduate Program. In 2014, Dr. Zamvil was named the Donnie Smith Chair in Multiple Sclerosis Research.

Dr. Zamvil is Deputy Editor of *Neurology, Neuroimmunology and Neuroinflammation (N2)* and has also served on the Editorial Boards of *The Journal of Clinical Investigation, The Journal of Immunology, Neurotherapeutics* and *The Journal of Neurological Sciences*. His research is funded by the National MS Society, National Institutes of Health, Guthy Jackson Charitable Foundation, Maisin Foundation, Teva Pharmaceuticals and Biogen Idec. Dr. Zamvil is currently serving a third term on the MS Society's Peer Review Research Grant Committee, and was previously a Charter Member of the NIH Clinical Neuroimmunology and Brain Tumors grant review committee. He also serves on the Clinical Advisory Board for the Myelin Repair Foundation, the Advisory Board of the American Academy on Treatment and Research in Clinical Trials, and is an elected Board Member of the International Society for Neuroimmunology.