



## 2017-2018 Recently Appointed Professors

Appointed as of November 1, 2017 through March 31, 2018

Faculty of Medicine reception held on May 14, 2018



**Galit Alter, Ph.D.**

Dr. Alter is Professor of Medicine at Massachusetts General Hospital. Her research is focused on the development of systems biology tools to define the correlates of immunity against infectious diseases. Her work points to unexpected mechanisms of protection against HIV, malaria, and tuberculosis and has led to the development of novel diagnostics to monitor chronic infections/diseases.



**Steven E. Arnold, M.D.**

Dr. Arnold is Professor of Neurology at Massachusetts General Hospital where he is the Translational Neurology Head in the Interdisciplinary Brain Center. As a neurologist and psychiatrist, Dr. Arnold's current research focuses on early phase and proof-of-concept clinical trials for novel therapeutics in Alzheimer's disease and related neurodegenerative dementias. He is also working toward the discovery of biofluid biomarkers of dementia diagnosis, staging and mechanisms of disease.



**William G. Austen, Jr., M.D.**

Dr. Austen is Professor of Surgery at Massachusetts General Hospital where he is Chief of the Division of Plastic & Reconstructive Surgery and Chief of the Division of Burn Surgery. The focus of his laboratory is on translational research in the field of plastic and reconstructive surgery, particularly in fat regeneration, vascular biology, and device development. He has a diverse clinical practice that includes aesthetic surgery, breast reconstruction, repair of cleft lip and palate, and is an authority in the field of the surgical treatment of migraine headaches.



**Christopher M. Bono, M.D.**

Dr. Bono is Professor of Orthopedic Surgery at Brigham and Women's Hospital where he is Chief of the Orthopaedic Spine Service, Co-Director of the Comprehensive Spine Center, and Director of the MGH-BWH Orthopaedic Spine Surgery Fellowship. He is an expert in spine surgery including spinal trauma. His clinical research interests are outcome studies for degenerative spinal disorders using large datasets.



**Athos Bousvaros, M.D., M.P.H.**

Dr. Bousvaros is Professor of Pediatrics at Boston Children's Hospital where he is Associate Director of the Inflammatory Bowel Disease (IBD) Center and Associate Chief of the Division of Gastroenterology. His field of expertise is the evaluation and treatment of children with complex cases of Crohn's disease and ulcerative colitis. Scientific contributions include the study of medications to treat severe IBD, evaluating how immune compromised children respond to vaccines, development of educational comic books for children with chronic illness, and the studies of the intestinal microbiome in IBD.



**Miriam A. Bredella, M.D.**

Dr. Bredella is Professor of Radiology at Massachusetts General Hospital where she is Director of Musculoskeletal Research. She is recognized for her multidisciplinary research in metabolic imaging that examines the effects of different fat depots on bone, insulin resistance and cardiovascular risk in subjects with obesity, growth hormone disorders, and anorexia nervosa. She is also renowned for providing care for patients with disorders of the musculoskeletal system.



**Andrew T. Chan, M.D., M.P.H.**

Dr. Chan is a Professor of Medicine at Massachusetts General Hospital where he is Chief of the Clinical and Translational Epidemiology Unit and Program Director for fellowship training in the Division of Gastroenterology. He is a leading investigator in the epidemiology of colorectal cancer and other digestive diseases. His work has contributed substantially to the evidence base supporting the anti-cancer effects of aspirin, which has culminated in a formal recommendation by the U.S. Preventive Services Task Force for the use of low-dose aspirin for the prevention of colorectal cancer for many adults.



**Philip A. Cole, M.D., Ph.D.**

Dr. Cole is Professor of Medicine at Brigham and Women's Hospital where he is Director of Chemical Biology. His research interests relate to the chemical biology of protein post-translational modifications. He has also developed widely used chemical methods and tools to analyze cell signaling proteins and epigenetic enzymes.



**Pierre E. Dupont, Ph.D.**

Dr. Dupont is Professor of Surgery at Boston Children's Hospital where he is Chief of Pediatric Cardiac Bioengineering. His research focuses on developing robotic technologies to address unmet clinical needs in cardiothoracic surgery, general surgery, and neurosurgery. His contributions include the creation of needle-sized robotic arms for use inside the heart and brain, wireless MRI-powered robots for MR-guided interventions, and robotic implants for *in vivo* tissue regeneration.



**Gordon J. Fishell, Ph.D.**

Gordon Fishell is a Professor of Neurobiology at Harvard Medical School. He studies how brain circuits are assembled, with a special focus on the diverse populations of inhibitory interneurons. His lab has demonstrated that many of the genes required for interneuron development also represent susceptibility genes for psychiatric diseases, indicating that development perturbation of interneurons can result in psychiatric disorders.



**Nir Hacohen, Ph.D.**

Nir Hacohen is Professor of Medicine at Massachusetts General Hospital where he is Director of the MGH Center for Cancer Immunology. He has developed methods of systems biology to dissect immune cells and their molecular networks in the context of infection, autoimmunity and cancer. He has identified factors that control the immune response against tumors in humans, such as cancer neoantigens as targets of T cells and the genetic evolution of tumors to evade immune attack.



**Jeffrey M. Karp, Ph.D.**

Dr. Karp is Professor of Medicine at Brigham and Women's Hospital. His research spans the fields of drug delivery, medical devices, and stem cell therapeutics and is often motivated from concepts including bioinspiration and radical simplicity. Several of the technologies that he developed have laid the foundation for products that are either on the market or under clinical development and cover the fields of skincare, tissue adhesives, inflammatory diseases, hearing loss, and child safety.



**Marek R. Kubicki, M.D., Ph.D.**

Dr. Kubicki is Professor of Psychiatry at Brigham and Women's Hospital where he is Associate Director of the Psychiatry Neuroimaging Laboratory and Co-Director of the Center for Morphometric Analysis at MGH. He has focused on developing and validating neuroimaging biomarkers of neuropsychiatric disorders, including schizophrenia, depression, Alzheimer's, substance use and aging. His lab has developed *in vivo* biomarkers for myelin degradation and neuroinflammation that are now widely used in the field of neuroscience.



**Joseph C. Kvedar, M.D.**

Dr. Kvedar is Professor of Dermatology at Massachusetts General Hospital and is also Vice President of Connected Health for Partners HealthCare. His work focuses on leveraging personal health technologies to create new models of care delivery to better manage chronic conditions. He has established a number of innovative health tracking programs, digital health and virtual care initiatives, and clinical research programs.



**Steven A. McCarroll, Ph.D.**

Dr. McCarroll is Professor of Genetics at Harvard Medical School. His research is focused on how human genome variation shapes human biology. His lab discovered the human genome's largest influence on schizophrenia; discovered a common pre-cancerous condition of human blood; and invented Drop-seq, a technology that enables the simultaneous analysis of gene expression in tens of thousands of individual cells.



**Nathan J. McDannold, Ph.D.**

Dr. McDannold is Professor of Radiology at Brigham and Women's Hospital. His research is focused on the interaction between acoustic energy and living tissue which is being investigated for numerous therapeutic applications including noninvasive surgery and targeted drug delivery. His work on the use of ultrasound in the brain has led to research on new therapies for brain tumors and other disorders of the central nervous system.



**Mari Mino-Kenudson, M.D.**

Dr. Mino-Kenudson is Professor of Pathology at Massachusetts General Hospital where she serves as the Director of Pulmonary Pathology. She is an expert in the diagnosis and subtyping of lung cancer and a leader in the field of predictive biomarker assessment for lung cancer. She is also internationally recognized for classification and risk stratification of pancreatic neoplasms and her clinical and translational research has contributed to improving treatment decision-making for patients with lung cancer and those with pancreatic neoplasms.



**Dost Öngür, M.D., Ph.D.**

Dr. Öngür is Professor of Psychiatry at McLean Hospital where he is Chief of the Division of Psychotic Disorders. His clinical and research interests focus on the causes and treatments of psychotic disorders such as schizophrenia and bipolar disorder. His work using magnetic resonance spectroscopy has contributed to our understanding of neurotransmission and bioenergetic abnormalities in these conditions.



**Leo E. Otterbein, Ph.D.**

Dr. Otterbein is Professor of Surgery at the Beth Israel Deaconess Medical Center. He pioneered the concept that carbon monoxide is a naturally occurring bioactive gas, generated by all cells, and involved in the regulation of molecular processes that befit the physiologic needs of the organism. His research findings have translated into numerous clinical trials and solidified the field of gasotransmitters, and he continues to study how CO imparts its homeodynamic immune modulatory effects aimed at disease tolerance.



**Mark R. Proctor, M.D.**

Dr. Proctor is Professor of Neurosurgery at Boston Children's Hospital where he is Neurosurgeon-in-Chief. His areas of clinical expertise within pediatric neurosurgery include craniofacial malformations, congenital spinal abnormalities, and brain and spinal cord injury. He is an international leader in the minimally invasive treatment of craniosynostosis, as well as the correction of complex congenital spinal deformity.



**Reza Rahbar, M.D., D.M.D.**

Dr. Rahbar is Professor of Otolaryngology at Boston Children’s Hospital, where he is the Associate Chief and Director of the Pediatric Otolaryngology Education and Fellowship Program. His clinical expertise is best exemplified by his leadership of two cross-departmental collaborative initiatives: the Center of Airway Disorders and the Program for Head-Neck and Skull Base Surgery. He is one of the leaders in pediatric airway surgery who is working to advance minimally invasive surgery.



**Laurence G. Rahme, Ph.D.**

Dr. Rahme is Professor of Surgery at Massachusetts General Hospital where she is Director of the Molecular Surgical Laboratory. She is recognized for developing anti-virulence therapeutics against Gram negative bacterial pathogens and developing non-vertebrate models of infection that permit high-throughput interrogation and screening for virulence factors. She is also a pioneer in revealing the role of bacterial quorum sensing signaling molecules in host tolerance/resilience to infection and in developing prognostic biomarkers of hyper-susceptibility to infection in trauma patients.



**Jayaraj Rajagopal, M.D.**

Dr. Rajagopal is Professor of Medicine at Massachusetts General Hospital where he is Director of the Stanbury Physician Scientist Track. His research is focused on developmental and stem cell biology of the lung, including seminal work on the role of cellular plasticity in regeneration. His work has broad implications for the cellular basis of lung disease.



**Colleen M. Ryan, M.D.**

Dr. Ryan is Professor of Surgery at Massachusetts General Hospital where she is the Director of Burn Outcomes at the Fraser Outpatient Burn Center. She is a recognized leader in the field of burn surgery as a result of wide-ranging work in burn injury prevention, development of objective estimates of mortality from burns, disaster preparedness, critical care and surgical techniques for burn care and the prevention and treatment of infections. Her work developing cutting edge metrics for the assessment of quality of life following burns has laid the foundation for the description of the health needs of burn survivors and the pathway to improve burn recovery.



**Pamela W. Schaefer, M.D.**

Dr. Schaefer is Professor of Radiology at Massachusetts General Hospital where she is Vice Chair of Post Graduate and Fellowship training, Clinical Director of MRI and the Associate Director of Neuroradiology. She has focused on defining the roles of advanced CT and MR imaging in acute ischemic stroke. Her findings have contributed to the establishment of national and international acute ischemic stroke guidelines.



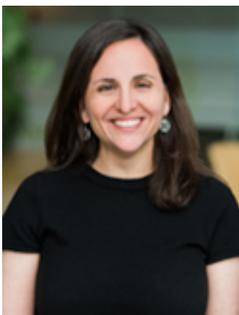
**William R. Sellers, M.D.**

Dr. Sellers is Professor of Medicine at the Dana-Farber Cancer Institute. He is a pioneer in elucidating the genetic basis for cancer and in the development of cancer therapeutics. Recent laboratory efforts are focused on leveraging large-scale functional genomics towards the discovery of novel therapeutics.



**Geoffrey I. Shapiro, M.D., Ph.D.**

Dr. Shapiro is Professor of Medicine at the Dana-Farber Cancer Institute where he is Director of the Early Drug Development Center, Clinical Director of the Center for DNA Damage and Repair and co-Leader of the Dana-Farber/Harvard Cancer Center Program in Developmental Therapeutics. He is a recognized leader in Phase 1 anti-cancer drug development, where he has focused on translational and clinical research of inhibitors of the cancer cell cycle, signal transduction and of DNA repair. His findings have informed the development of these agents as monotherapies and have translated into mechanistically based combinatorial strategies.



**Jennifer S. Temel, M.D.**

Dr. Temel is Professor of Medicine at Massachusetts General Hospital where she is Director of the Cancer Outcomes Research Program at the MGH Cancer Center. Her research focuses on improving the care and outcomes of patients with serious cancer and their family members. Her research demonstrating the benefits of early involvement of palliative care for patients with advanced cancer has changed the practice of oncology care around the world.



**Ravi R. Thiagarajan M.B.B.S., M.P.H.**

Dr. Thiagarajan is Professor of Pediatrics at Boston Children’s Hospital where he is Chief of the Division of Cardiac Critical Care. He has two decades of experience caring for children with cardiac disease requiring intensive care, and is well recognized for his research on improving outcomes for children with critical cardiac disease. His ongoing research focuses on improving care and long-term outcomes for children requiring Extracorporeal Life Support.



**Elizabeth M. Van Cott, M.D.**

Dr. Van Cott is Professor of Pathology at Massachusetts General Hospital where she is Medical Director of the Core Laboratory and Director of the Coagulation. Her clinical and academic efforts have improved the quality of coagulation testing and have helped avoid erroneous results and misdiagnoses from the interferences caused by anticoagulant therapies. She has also authored a number of coagulation guidelines that are widely utilized around the globe.



**Mark A. Varvares, M.D.**

Dr. Varvares is Professor of Otolaryngology at Massachusetts Eye and Ear where he is the Associate Chief of Otolaryngology. His clinical and research interests focus on oncologic and functional outcomes of major ablative and reconstructive surgery of cancer of the head and neck. He has made important contributions to the understanding of the impact of surgical pathology of head and neck tumors on survival and has introduced innovative approaches to improve the management of cancers of the oral cavity.



**John W. Winkelman, M.D., Ph.D.**

Dr. Winkelman is Professor of Psychiatry at Massachusetts General Hospital where he is the Chief of the Sleep Disorders Clinical Research Center. His research is focused on epidemiology, cardiovascular consequences and clinical management of restless legs syndrome, and the neurobiology of insomnia. His work has contributed to current accepted clinical guidelines for the long-term management of restless legs syndrome.



**Joanne Wolfe, M.D., M.P.H.**

Dr. Wolfe is Professor of Pediatrics at the Dana-Farber Cancer Institute where she is the Chief of the Division of Pediatric Palliative Care. Her clinical, education, and research interests have focused on easing suffering and enhancing wellbeing through studies of improved quality of life outcomes in seriously ill children and their families. As one of the thought leaders of pediatric palliative care, her contributions have greatly advanced the field and improved patient care across the world.



**Catherine J. Wu, M.D.**

Dr. Wu is Professor of Medicine at the Dana-Farber Cancer Institute. Her research focuses on how best to effectively mount human immune responses to recognize and eradicate cancer, with dedicated effort on the discovery and targeting of tumor antigens. She has initiated an integrated program of clinical research activities that focuses on dissecting the pathobiology of chronic lymphocytic leukemia (CLL), including understanding of clonal heterogeneity and the kinetics in this disease and developing personalized immunotherapies, ranging from whole tumor cell vaccines to personal neoantigen-targeting cancer vaccines.