

Alexander Adam, PhD, JD

Alexander Adam is an intellectual property attorney at Hamilton Brook Smith & Reynolds P.C. in Boston. Dr. Adam specializes in drafting and prosecuting patent applications in the fields of computer systems, electronics, imaging software, control systems, mechanical devices, medical devices, telecommunications,

and clean energy. He also has experience in patent litigation, due diligence, and providing invalidity and non-infringement opinions. Alex advises clients on U.S. and international patent strategy. Dr. Adam's work on patent applications includes laboratory devices for the pharmaceutical industry, 3-D modeling for surgical planning, computer-controlled prosthetic devices, speech recognition technology, needle-free injection devices, fuel cell technology, and medical implants.

Dr. Adam received his B.S. in 1992, M.S. in 1995 and Ph.D. in 2003 all in Biomedical Engineering from Boston University. From 2003 to 2006, he held the position of Research Assistant Professor at the Neuromuscular Research Center at Boston University. Dr. Adam received a J.D. from Suffolk University Law School in 2009.

Dr. Adam is a member of the American Bar Association, American Intellectual Property Law Association, Boston Patent Law Association, IEEE Engineering in Medicine and Biology Society, and German American Business Council of Boston.

Walt Baxter, PhD

Dr. Baxter serves as a Senior Principal Scientist within Medtronic's Neuromodulation Division primarily within the Therapy Delivery business, helping to develop novel stimulation leads for positioning electrodes within the nervous system. Dr. Baxter has patented key

ideas and published seminal works detailing the mechanical conditions implanted medical devices are exposed to during their implant lifetimes. Prior to joining Medtronic, Dr. Baxter studied Mechanical Engineering at the Georgia Institute of Technology and later trained within the Cardiac Mechanics Research Group at the University of California, San Diego where he developed, implemented, and validated novel algorithms for elucidating the mechanics of implanted medical devices. In addition to his work at Medtronic, Dr. Baxter chairs the advisory board for the Georgia Institute of Technology's Department of Biomedical Engineering and serves on the industrial advisory boards at UC Riverside's Department of Bioengineering, UC Irvine's Department of Bioengineering, and UC San Diego's Whitaker Institute of Biomedical Engineering where he impacts and fosters meaningful academic-industrial collaboration through his board work. Dr. Baxter guest lectures in Mechanical and Biomedical Engineering courses at the University of California, Irvine, University of California, Los Angeles, University of Southern California, and San Diego State University. He mentors engineering students at North Carolina State University through a joint Neuroinnovations design program with Duke University. Dr. Baxter also speaks to student groups on University campuses about careers in the medical device industry where he seeks to attract talented students to the industry. He is an elected Fellow of the American Institute for Medical and Biological Engineering where he works to further awareness of how Medical and Biological Engineering impacts the lives of people around the world.

Colin Brenan, PhD

Colin J.H. Brenan is a serial life sciences entrepreneur and senior executive with 30 years of experience in scientific research, project management, product development, strategic marketing and financing of early-stage life science companies. Dr. Brenan is currently a Founder and Chief Commercial Officer for HiFiBio BV. Formerly he was Managing Director of the Monsanto-Atlas Seed Fund

Alliance at Atlas Venture where he identified and invested in seed and early-stage life science companies. Prior to Atlas, Dr. Brenan was Director of Strategic Relationships for the Center for Integration of Medicine and Innovative Technology where he implemented CIMIT's innovation strategy with external partners, raised \$6M in funding and launched a start-up (Organ Solutions) from the CIMIT Accelerator.

Previous to joining CIMIT, Dr. Brenan was the Founder, Chief Technology Officer and Senior Vice President, Business Development for BioTrove Inc. (Woburn, USA), a life science tools and consumables company spun-out from the Massachusetts Institute of Technology (MIT) and acquired by Life Technologies Inc. ; At Biotrove, he was responsible for development of the OpenArray™ and RapidFire™ products, expansion of the intellectual property portfolio from one patent application to 76 issued and pending patents, \$8M in strategic sales and was the lead or co-lead in raising \$30M of investment capital from corporate and venture capital partners. BioTrove is a MIT TLO Success Story, winner of the 2009 North American Frost & Sullivan Award for Growth Strategy Leadership of the Year and the acquisition of BioTrove by Life Technologies was voted one of the top ten M&A transactions of 2009 by PriceWaterhouseCooper.

Dr. Brenan is the inventor on 17 US and 18 foreign patents, and published +50 peer-reviewed journal articles, book chapters and reports in the fields of bio-microsystems, confocal microscopy, spectroscopic imaging and microsurgical robotics. He has over a decade of experience in consulting for the US National Institutes of Health and is a reviewer for IEEE, IEE, and AIP journals. Dr. Brenan is a Senior Member of the IEEE-EMBS, the Founder and former Chair of the EMBS Boston Chapter (2002-2007), the EMBS Region 1 Representative (2002-2005), the EMBC 2011 co-Chair and is Editor-in-Chief of IEEE PULSE Magazine (2013-present). He received his B.Sc. (Honors Physics), M. Eng. (Electrical), and Ph.D. (Biomedical Engineering) from McGill University (Montreal, Canada) and completed post-doctoral training at MIT (Cambridge, USA).

Michael Dempsey, BSEE

Mike is an Entrepreneur in Residence at CIMIT. His primary responsibility is to lead the CIMIT Accelerator Program which is focused on finding, funding and facilitating innovations that are to be handed off to industry within twelve to eighteen months. Mike and his team work closely with the project teams to not only advance the technology, but also to develop and execute a complete strategy for getting the innovation into practice.



Mike has been working in the field of medical devices for more than 25 years; during this time, he has invented or worked on products that have treated over twenty million people. He was a co-founding of Radianse, a venture-backed company that develops indoor positioning systems for hospitals. Prior to founding Radianse, Mike worked as a technical strategist for wireless solutions at Hewlett-Packard/Agilent Technologies (now Philips Medical Systems). He has helped to develop and introduce dozens of successful products, holds over 40 patents in wireless medical device communications and has ten more patents pending. Mike received a special citation from the Commissioner of the FDA for "exceptional initiative and leadership to protect the public health." He has a BSEE from The University of Michigan.

Omid Farokhzad, MD

Omid Farokhzad is an Associate Professor at Harvard Medical School (HMS) and a physician-scientist in the Department of Anesthesiology at Brigham and Women's Hospital (BWH) where he directs the Laboratory of Nanomedicine and Biomaterials. He is a faculty member of the Brigham Research Institute Cancer

Research Center and a member of the Dana Farber/Harvard Cancer Center Programs in Prostate Cancer and Cancer Cell Biology. Dr. Farokhzad's research is focused on the development of therapeutic nanoparticle technologies; most notably, he pioneered the high throughput combinatorial development and screening of multifunctional nanoparticles for medical applications. Dr. Farokhzad has authored approximately 130 papers and holds more than 140 issued/pending US and International patents. The technologies that Dr. Farokhzad has developed with collaborators at HMS and MIT formed the basis for the launch of four biotechnology companies: BIND Therapeutics, Selecta Biosciences, Tarveda Therapeutics (formerly Blend Therapeutics), and Koan Biotherapeutics, which are translating the aforementioned academic innovations toward commercialization and societal impact. Dr. Farokhzad has served in various capacities on the Board of Directors and the Scientific Advisory Board of these companies.

Dr. Farokhzad has received multiple awards including the Ernst & Young Entrepreneur of the year in 2012, the RUSNANOPRIZE in 2013, the Golden Door Award from the International Institute of New England in 2014, and the Ellis Island Medal of Honor in 2016 for his scientific, societal and economic contributions to America as an immigrant. In 2015, he was named as one of The Worldview 100 by Scientific American, which recognized visionaries who shape biotechnology around the world. Dr. Farokhzad was elected to the College of the Fellows of the American Institute of Medical and Biological Engineering. He was selected by Thomson Reuters among the Highly Cited Researchers in 2014 and 2015. The Boston Globe selected him among the top innovators in Massachusetts and the Boston Business Journal selected him among the Health Care Champions for his innovations.

Dr. Farokhzad completed his post-graduate clinical and post-doctoral research trainings, respectively, at the BWH/HMS and MIT in the laboratory of Institute Professor Robert Langer. He received his M.D. and M.A. from Boston University School of Medicine and his M.B.A. from the MIT Sloan School of Management.

Rosemarie Hunziker, PhD

Rosemarie Hunziker, Ph.D. is the Director of Tissue Engineering and Regenerative Medicine at the National Institute of Biomedical Imaging and Bioengineering (NIBIB) within the National Institutes of Health (NIH) in the US Department of Health and Human Services (DHHS). Dr. Hunziker brings a diverse

background to this broad sphere of research. After receiving a Bachelor of Science in Microbiology from the Philadelphia College of Pharmacy and Science (now the University of the Sciences in Philadelphia), she set off to study the complex antigenic profile of bovine lymphocytes and earn a Master of Science in Immunogenetics from Ohio State University. Her Ph.D. work with Tom Wegmann at the University of Alberta involved analysis of the cell surface immunogens at the maternal-fetal interface. Post-doctoral training at the Laboratory of Immunology, National Institutes of Allergy and Infectious Diseases (NIAID/NIH) focused on the generation of transgenic mouse models of histocompatibility antigen variants to study mechanisms of immune recognition and tolerance. Rosemarie set up the NIAID's Transgenic Mouse Facility at the FCRDC in Fort Detrick, MD to supply intramural scientists with mouse lines engineered to express their protein of choice. After organizing and running that effort for seven years, she left NIH to join the Advanced Technology Program (ATP) at the National Institute of Standards and Technology (NIST, Department of Commerce). ATP awarded grants to for-profit companies for high-risk R&D. There she was a Program Manager in the Chemistry and Life Science Office, with responsibilities to monitor and advance the life science portfolio, with particular emphasis on Tissue Engineering.

After a brief stint in private consulting advising biotechnology companies on strategic use of federal research grants to advance their business goals, Rosemarie returned to NIH in 2004 to help accelerate technology transfer at the National Institute of Dental and Craniofacial Research (NIDCR) and oversee the Dental Biomaterials portfolio. In January, 2007 she moved to her current position at the NIBIB. She is committed to nurturing discovery science and realizing the practical benefits of the exciting developments at the forefront of cell-based tools and therapies.

Todd Landsman, PhD

Todd Landsman is the Engineering Manager at DEP Shape Memory Therapeutics, Inc. (SMT), which was founded to create medical devices and technology based on novel polyurethane shape memory polymers (SMPs) that were

created in a joint effort between Texas A&M University (TAMU) and Lawrence Livermore National Laboratory. As the Engineering Manager at SMT, he has led the design and development of a peripheral embolization device (PED) for the past two years. While working with SMT for the past two years, Dr. Landsman was also a graduate student at TAMU pursuing his Ph.D. in Biomedical Engineering as a member of the Biomedical Device Laboratory. During his dissertation, he designed the PED technology and has become an expert on the functionality, testing procedures, design, and material characteristics of the device. Dr. Landsman received his B.S. in Mechanical Engineering and his M.S. in Biomedical Engineering from Cal Poly State University.

Tiffani Lash, PhD

Dr. Tiffani Bailey Lash serves as a Program Director/Health Scientist Administrator at the National Institutes of Health. She manages the research portfolios for the Biosensors, Platform Technologies, and mHealth programs at the National Institute of

Biomedical Imaging and Bioengineering (NIBIB). Dr. Lash is also the Program Director for the NIBIB Point of Care Technologies Research Network, consisting of three centers charged with developing point-of-care diagnostic technologies through collaborative efforts that merge scientific and technological capabilities with clinical need.

Prior to her current position, Dr. Lash worked within the NIH's science policy administration. During that time, she worked at the National Institute of General Medical Sciences and National Heart Lung and Blood Institute, as well as the NIH Office of the Director. Dr. Lash has been selected as a science policy fellow for both the American Association for the Advancement of Science (AAAS) and the National Academy of Engineering. She also has a background in small business innovation and intellectual property. Dr. Lash earned her Ph.D. in Physical Chemistry from North Carolina State University via a collaboration between the Departments of Chemistry and Chemical and Biomolecular Engineering. Her interdisciplinary research interests include microfluidics, biopolymers with controlled molecular architecture, and biosensor technologies.

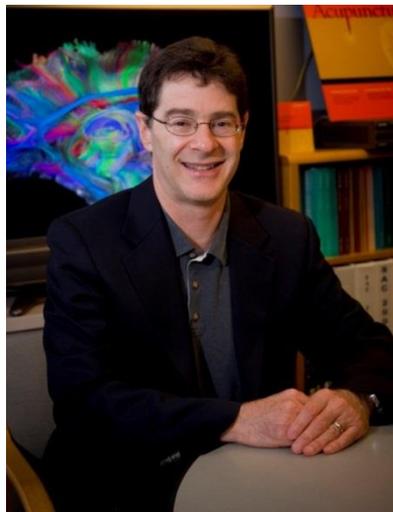
Christopher J. Medberry, PhD

Dr. Christopher J. Medberry is Senior Regulatory Affairs Specialist at the DePuy Synthes Companies of Johnson and Johnson currently supporting Biomaterials and Front End Innovation. He completed his Ph.D. in Bioengineering at the McGowan

Institute for Regenerative Medicine at the University of Pittsburgh. His research focused on the development and application of novel biomaterials, including hydrogels and scaffolds derived from nervous tissue extracellular matrix, and multiple preclinical models of traumatic central nervous tissue injury to investigate the mechanisms of biomaterial mediated tissue repair. His postdoctoral research explored therapeutic approaches that modulate the default healing response to prevent scarring and preserve or restore vision following injury and disease. Beyond the laboratory, Dr. Medberry worked as a Postdoctoral Fellow with the Coulter Translational Research Partners II Program at the University of Pittsburgh where he provided technical expertise and aided in the development of regulatory documents and in industry where he worked on medical device research, design, and development. He most recently completed the AIMBE Scholars Program, which is a Policy Fellowship Program at the U.S. Food and Drug Administration. As an AIMBE Scholar, Dr. Medberry utilized his technical background to influence decisions and help create policy within the Office of the Center Director, Center for Devices and Radiological Health. His long-term goal is to utilize his regulatory and policy background to foster innovative strategies for medical device development that improve patient care, and clinical outcomes.

Todd Merchak, BS

Todd Merchak is a Program Specialist in the Office of Program Evaluation and Strategic Partnerships at the National Institute of Biomedical Imaging and Bioengineering (NIBIB). He has been managing the NIBIB Small Business (SBIR/STTR) programs for the past 12 years and helps lead the Institute's strategic partnership activities. He also serves as a liaison for health disparities research, as well as a Science Officer for the Point-of-Care Technologies Research Network. Mr. Merchak received his B.S. degree in Biomedical Engineering from Yale University.

Bruce Rosen, MD, PhD

Dr. Rosen is a Professor of Radiology at Harvard Medical School, Laurence Professor of Radiology at Harvard Medical School and Professor of Health Sciences and Technology at the Harvard Medical School-Massachusetts Institute of

Technology Division of Health Sciences and Technology. He is Director of the Athinoula A. Martinos Center for Biomedical Imaging at Massachusetts General Hospital, MIT, and the Harvard Medical School. He received his PhD in medical physics from MIT and his MD from the Hahnemann Medical College in Philadelphia, and is board certified in radiology. Dr. Rosen's research over the past thirty years has focused on the development and application of physiological and functional NMR techniques. His studies allow researchers to better interpret fMRI signal changes and develop new ways to probe brain function; for instance, through "event related" fMRI studies. Dr. Rosen leads the activities of several large interdisciplinary and inter-institutional research and training programs that focus on the development of novel biomedical imaging technologies and their application to diverse programs of basic and clinical research including the NIH/NCRR Regional Resource Center, the Center for Functional Neuroimaging Technologies (CFNT), the Biomedical Informatics Research Network (BIRN), and others. A Gold Medal winner and Fellow of the International Society of Magnetic Resonance in Medicine, Dr. Rosen is author or coauthor of more than 250 peer-reviewed articles, book chapters, and reviews. He has mentored dozens of graduate students and research fellows through the years.

Nicole Steinmetz, PhD

Dr. Steinmetz is an Associate Professor of Biomedical Engineering at Case Western Reserve University School of Medicine, Cleveland, OH, where she leads a research laboratory interfacing bio-inspired, molecular engineering approaches with medical research and technology



development. Dr. Steinmetz trained at The Scripps Research Institute, La Jolla, CA where she was a NIH K99/R00 awardee and AHA post-doctoral fellow (2007-2010); she obtained her PhD in Bionanotechnology from the University of East Anglia where she prepared her dissertation as a Marie Curie Early Stage Training Fellow at the John Innes Centre, Norwich, UK (2004-2007). Her early training was at the RWTH-Aachen University in Germany, where she obtained her Diploma (Masters) in Molecular Biotechnology (2001-2004) after completing her pre-Diploma from the Ruhr University Bochum, Germany (1998-2001). Dr. Steinmetz serves on the Editorial Board of Wiley Interdisciplinary Reviews (WIREs) on Nanomedicine and Nanobiotechnology; and on the Advisory Editorial Board for the ACS journal Molecular Pharmaceutics. Dr. Steinmetz has chaired symposia at American Chemical Society, Materials Research Society, and Foundations of Nanosciences; and she served as Chair of the Gordon Conference of Physical Virology (2015). Dr. Steinmetz has authored more than 100 peer-reviewed journal articles, reviews, book chapters, and patents; she has authored and edited books on Virus-based nanotechnology. Research in the Steinmetz Lab is funded through grants from federal agencies, including National Institute of Health, National Science Foundation, and Department of Energy, as well as private foundations, including Susan G. Komen Foundation, American Cancer Society, and American Heart Association.

Michael Summers, PhD

Dr. Summers is a member of the National Academy of Sciences, an Investigator with the Howard Hughes Medical Institute, the Robert E. Meyerhoff Chair for Excellence in Research and Mentoring and a University Distinguished

Professor of Chemistry and Biochemistry at the University of Maryland Baltimore County. He is also co-Director of an IMSD-MBRS grant entitled "Expanding Participation by Minorities in the Biomedical Sciences, an initiative to promote cultural diversity in the biomedical sciences at the graduate level. Dr. Summers received his PhD in bioinorganic chemistry from Emory University. His research over the past thirty years has focused on understanding how viruses assemble, mature and selectively package their RNA genomes. Combination drug therapies can keep the virus at bay for extended periods, even a normal lifespan, but current therapeutic regimens are expensive, compliance can be difficult, and strains that are resistant to combination drug therapies have emerged. Thus, there are needs to develop new therapeutic approaches that target different viral components. His lab is using nuclear magnetic resonance (NMR) to study the structures and functions of the viral proteins and RNA genome of HIV-1. Their studies are yielding information on how the highly conserved viral 5'-UTR temporally regulates transcription, splicing, translation, packaging, reverse transcription, and other essential RNA-dependent activities during the viral replication cycle.

Hannah Valantine, MD

Hannah Valantine is the first NIH Chief Officer for Scientific Workforce Diversity, and a Senior Investigator in the Intramural Research Program at the National Heart, Lung, and Blood Institute. Prior to starting this position in April 2014, Dr. Valantine was Professor of Cardiovascular Medicine and the Senior Associate Dean for Diversity and Leadership at Stanford, a leadership position she held since November 2004. She is nationally recognized for her transformative approaches to diversity and is a recipient of the NIH Director's Pathfinder Award for Diversity in the Scientific Workforce. She is currently leading NIH efforts to promote diversity through innovation across the NIH-funded biomedical workforce through a range of evidence-based approaches. Dr. Valantine maintains an active clinical research program that continues to have high impact on patient care. Current research extends her previous finding that an organ transplant is essentially a genome transplant, and that monitoring the level of donor DNA in a recipient's blood as a marker of organ damage will detect early stages of rejection. She is currently overseeing a multi-site consortium of mid-Atlantic transplant centers to validate these findings clinically toward the development of a non-invasive tool for detecting early signs of organ rejection

Chris Kelly, PhD

Dr. Christine A. Kelley is the Director of the Division of Discovery Science and Technology and Acting Associate Director Extramural Science Programs at the NIBIB. She received her Ph.D. degree in Cell Biology from Boston University in 1988. Her graduate research focused on the role of

pericytes in the microvasculature. From 1988-1996 Dr. Kelley conducted postdoctoral and independent research on the function and regulation of smooth muscle and nonmuscle myosin isoforms in the Laboratory of Molecular Cardiology in the National Heart, Lung, and Blood Institute (NHLBI). In 1996 Dr. Kelley became a Health Scientist Administrator in the Vascular Biology Research Group within the Division of Heart and Vascular Diseases in the NHLBI, before moving in 1998 to a position as a Health Scientist Administrator in the Bioengineering and Genomic Applications Research Group within the same Division. Dr. Kelley assumed her current position in NIBIB in March 2002.

Zeynep Erim, PhD

Dr. Zeynep Erim is a Program Officer in the Division of Interdisciplinary Training at NIBIB. Dr. Erim received a BS degree in Electrical Engineering from Istanbul Technical University in Turkey in 1983; an MS in Biomedical Engineering from Bogazici University in Istanbul in 1986; and a

Ph.D. in Biomedical Engineering from Boston University in 1992. From 1992 to 2001, she held the position of Research Assistant Professor at the Neuromuscular Research Center at Boston University, and in 2002, joined the Sensory Motor Performance Program at the Rehabilitation Institute of Chicago as a Senior Research Scientist where she later became Associate Director for Research. She also served as Research Associate Professor in the Department of Physical Medicine and Rehabilitation at the Feinberg School of Medicine, and as Adjunct Faculty at the Biomedical Engineering Department in the McCormick School of Engineering at Northwestern University. Her research interests include biomedical signal processing, motor control, and rehabilitation engineering. Dr. Erim joined NIBIB in August 2007

Richard Baird, PhD

Dr. Richard A. Baird is the Director of the Division of Interdisciplinary Training at the NIBIB. Dr. Baird obtained the B.S. in Electrical Engineering (1975) from the Massachusetts Institute of Technology and the Ph.D. in Electrical Engineering and Computer Sciences (1981) from the

University of California, Berkeley. After a postdoctoral fellowship at the University of Chicago (1981-1984), he became a research scientist (1984-1998) at the R.S Dow Neurological Sciences Institute and an adjunct faculty member of the Department of Physiology and Pharmacology at Oregon Health Sciences University in Portland, Oregon. In 1998, Dr. Baird became the Head of the Fay and Carl Simons Center for Biology and Hearing and Deafness at the Central Institute for the Deaf, Spencer T. Olin Professor in the Department of Speech and Hearing at Washington University, and an adjunct faculty member of the Department of Otolaryngology and the Department of Anatomy and Neurobiology at Washington University School of Medicine in St. Louis, Missouri. He also founded and directed the Inner Ear consortium (1999), a group encouraging collaboration among researchers working on the development, function, and regeneration of the inner ear and supporting state-of-the-art core facilities in digital imaging, electron microscopy, molecular biology, and electronic services. In 2002, he became Director of Research of the Harold W. Siebens Hearing Research Center at Central Institute for the Deaf. Dr. Baird joined the NIBIB in October 2005.