

Navigating Starting a Career in Academia or Industry Panel

Society for Biomaterials Regional Meeting

September 20th, 2024 1-2:30PM



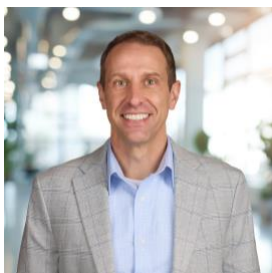
Vitaly Kheyfets, PhD

Associate Professor of Pediatrics, Critical Care Medicine and Cardiovascular Pulmonary Research

University of Colorado Denver, Anschutz Medical Center

Department of Pediatrics, School of Medicine

I am an associate professor in the department of Pediatrics, section of critical care medicine. My official training is in mechanical engineering with a focus on finite element analysis and computational modeling. During my graduate studies, I was flipping through a physiology textbook at a friend's house, who was a student in medical school, and I became so enthralled with the material that I read the entire thing in a weekend. I didn't want to be a clinician, so I changed my focus to biomechanics and joined a lab working on non-Newtonian biofluid mechanics. As I was writing my dissertation, I applied for an NSF GK12 fellowship, which allowed me to dip my toe into teaching, and I immediately fell in love with it. My path to this point has been messy with many detours, some disappointments, some successes, and a lot of all-nighters. In the end, I chose a much lower paying job in academia over a generous offer in industry, and I only regret it about 20% of the time ... so not bad.



Michael Mestek, PhD

Senior Director and Head

Medtronic

Clinical Research and Medical Science

Michael Mestek currently serves as the Senior Director and Head of Clinical Research and Medical Science for Medtronic's Acute Care and Monitoring Operating Unit. He joined Medtronic in 2009 and progressed through positions of increasing responsibility in Research and Development, Global Marketing, and Clinical Research and Medical Science. In addition to his role in industry, he is an Adjoint Assistant Professor in Bioengineering at the University of Colorado Anschutz School of Medicine. He also serves on the Johns Hopkins Center for Bioengineering Innovation & Design External Advisory Board and is the Chair of the Board of Directors for the Colorado BioScience Institute, an educational non-profit. Prior to joining Medtronic, he was a Research Fellow and National Institutes of Health trainee in the Department of Integrative Physiology at the University of Colorado at Boulder. Michael holds a PhD in Exercise Physiology from Auburn University.



Matthew Pink, PhD

Vice President of Business Development

Biodesix, Inc.

Matthew Pink is VP of Business Development at Biodesix. He joined the Company in November 2020. Matthew has over 12yrs of BD, licensing, and strategy experience in the life-sciences sector with an academic background in Biology, having received his PhD in Neuroscience from the University of Colorado. Prior to joining Biodesix, Matthew served as US Director of Research External Innovation and US Director of Business Development, Licensing and Strategy at CSL Behring, a global therapeutics company with a portfolio of plasma-derived, recombinant protein, and cell and gene therapies. Prior to his work at CSL, Matthew spent time at the University of

Pennsylvania and the University of Colorado, driving the commercialization of technologies emerging from academic research. Over his career, Matthew has led the successful negotiation and signature of 100+ agreements including in-licensing and out-licensing agreements, revenue generating service agreements, and an acquisition agreement. Matthew is also passionate about making a difference in the treatment of brain cancer. After losing his father to glioblastoma in 2013, Matthew and his family established the Madison Brain Tumor 5K, an annual charity run/walk held in Madison, WI to raise awareness and funding for glioblastoma research. All money raised is donated to the National Brain Tumor Society.



Justin Shaffer, PhD

Associate Dean of Undergraduate Students and Teaching Professor

Colorado School of Mines

Department of Chemical and Biological Engineering and Quantitative Biosciences and Engineering

Justin Shaffer, PhD, is the Associate Dean of Undergraduate Studies and a Teaching Professor in Chemical and Biological Engineering and in Quantitative Biosciences and Engineering at the [Colorado School of Mines](#). Dr. Shaffer is the author of the forthcoming book *High Structure STEM Course Design* which gives practical hands-on advice for creating STEM courses that engage students in and out of the classroom and improve student outcomes. Dr. Shaffer is an [award-winning educator](#) who has taught 8500+ students since 2012 in the areas of chemical engineering, biomedical engineering, biology, and anatomy and physiology and has published 25+ peer-reviewed journal articles and teaching materials on the efficacy of high structure courses, active learning, and related topics. Dr. Shaffer is the founder of [Recombinant Education](#) where he provides professional development and consulting services to faculty, future faculty, and administrators in the areas of course and curriculum design, evidence-based teaching practices, and discipline-based education research. Dr. Shaffer has been an editor for four discipline-based education research journals, has written op-eds for [Inside Higher Ed](#), and has been featured on several podcasts including [Teaching in Higher Ed](#).



Wyatt Shields, PhD

Assistant Professor

University of Colorado Boulder

Department of Chemical and Biological Engineering

Wyatt Shields joins us as an Assistant Professor in the Department of Chemical and Biological Engineering at the University of Colorado Boulder. He received his B.S. from the University of Virginia in 2011 and Ph.D. from Duke University in 2016. He performed a postdoc at NC State with Orlin Velev and a second postdoc at Harvard University with Samir Mitragotri. He started his research group at CU Boulder in 2020 and has national gained recognition for his work with awards such as the NSF CAREER award, ONR young investigator award, and NIH MIRA award. In 2022, he became a Packard Fellow in Science and Engineering and a Pew Biomedical Scholar. He also received the Camille Dreyfus Teacher-Scholar award in 2024 for his contributions to research and education. Dr. Shields's group focuses on developing field-responsive and active particles as vehicles for next-generation biosensing, drug delivery, and immunoengineering.



Amanda Weaver, PhD

Senior Scientist

Biodesix

Amanda Weaver is a Sr. Scientist in the Applied Research and Technology group at Biodesix who is dedicated to meeting unmet clinical needs in lung disease. Amanda has focused her career on new methods evaluation and assay development utilizing MALDI-ToF and QQQ mass spectrometers, ddPCR, and NGS platforms. Currently, Amanda's key responsibilities are in early technology assessment and assay feasibility, verification, and validation, as well as external collaborator projects. A critical contribution that Ms. Weaver has made to Biodesix' mission and vision includes leading multiple technology transfer projects internationally.