

Bioengineering Graduate Faculty

[Nitín Agrawal](#), Assistant Professor, Department of Bioengineering. PhD: 2006, Chemical Engineering, Texas A&M University. Postdoctoral fellow: 2006-2009, Harvard Medical School, MGH Hospital and Shriners' Burn Hospital. Research interests: cell migration, microfluidics.

[Giorgio Ascoli](#), University Professor, Molecular Neuroscience Department. PhD: 2006, Biochemistry and Neuroscience, Scuola Normale Superiore, Pisa (Italy). Director Center for Neural Informatics, Structures, and Plasticity. Research interests: Neuroinformatics, computational neuroanatomy, neuronal morphology, network connectivity, hippocampus.

[Kim "Avrama" Blackwell](#), Professor, Department of Molecular Neuroscience, The Krasnow Institute for Advanced Studies. PhD: 1988, Bioengineering, University of Pennsylvania. Research interests: biophysical and biochemical mechanisms of long term memory storage studied through computational and electrophysiological techniques.

[Estela Blaisten-Barojas](#), Professor, School of Physics, Astronomy, & Computational Sciences. PhD: 1974, Université Pierre et Marie Curie (formerly Paris VI), Paris, France. Research interests: nanostructures, supramolecular aggregates, computational technologies in molecular systems of relevance to medicine.

[Laurence Bray](#), Research Assistant Professor, Department of Bioengineering. PhD: 2010, Biomedical Engineering, University of Nevada. Postdoctoral Associate: 2010-2013, University of Nevada. Research interests: computational neuroscience, modeling neural networks, virtual robotics.

[Juan Cebal](#), Professor, Department of Bioengineering. PhD: 1996, Computational Sciences and Informatics, George Mason University. Research interests: computational fluid dynamics, modeling of blood flow, applications to cerebral aneurysms.

[Parag V. Chitnis](#), Assistant Professor, Department of Bioengineering. PhD: 2007, Mechanical Engineering, Boston University. Postdoctoral fellow: 2007-2008, Boston University. Research interests: photoacoustic imaging, ultrasound biomicroscopy, image-guided therapy.

[Nelson Cortes](#), Assistant Professor, Division of Health and Human Performance, College of Education and Human Development. PhD: 2010, Human Movement Sciences, Old Dominion University. Research interests: biomechanics, muscle dynamics, injury prevention.

[Kenneth de Jong](#), Professor, Department of Computer Science, Volgenau School of Engineering; Associate Director, The Krasnow Institute for Advanced Studies. PhD: 1975, Computer Science, University of Michigan. Research interests: genetic algorithms, machine learning, artificial intelligence.

[Vasiliki N. Ikonomidou](#), Assistant Professor, Department of Bioengineering. PhD: 2002, Electrical and Computer Engineering. Visiting Fellow and then Research Fellow: 2003-2009, Neuroimmunology Branch, NINDS/NIH. Research interest: magnetic resonance imaging.

[Saleet Jafri](#), Professor, Professor and Chair, Department of Molecular Neuroscience, The Krasnow Institute of Advanced Study. PhD: 1993, Biomedical Sciences, The City University of New York. Research interests: using mathematical models to study cardiovascular physiology, cell signaling, and cell energetics.

[Wilsaan Joiner](#), Assistant Professor, Department of Bioengineering. PhD: 2007, Biomedical Engineering, Johns Hopkins University. Postdoctoral fellow: 2007-2012, NIH. Research interests: eye movement, perception, sensorimotor integration.

[Fernando Mut](#), Research Assistant Professor, PhD: 2008, Computational Sciences and Informatics, George Mason University. Research interests: finite element simulations, mesh generation, computational fluid dynamics, bio-membranes modeling, applications to cerebral aneurysms.

[Nathalia Peixoto](#), Associate Professor, Department of Electrical and Computer Engineering. Affiliate appointment in Department of Bioengineering. PhD: 2001, Electrical Engineering. Postdoctoral Fellow: 2001-2002, Stanford; 2003-2006, Center for Neural Dynamics, George Mason University. Research interests: electrical activity of the brain, electrode analysis and modeling.

[Huzefa Rangwala](#), Associate Professor, Department of Computer Science. Affiliate appointment in Department of Bioengineering. PhD: 2008, Computer Science, University of Minnesota. Research interests: bioinformatics, machine learning.

[Carolina Salvador Morales](#), Assistant Professor, Department of Bioengineering. PhD: 2007, Chemistry, University of Oxford. Postdoctoral fellow: 2007-2011, MIT. Interests: nanoparticles, immunology, entrepreneurship.

[Padmanabhan Seshaiyer](#), Professor, Department of Mathematical Sciences, College of Science. PhD: 1998, Applied Mathematics, University of Maryland, Baltimore County. Research interests: advanced scientific and parallel computing, computational biomechanics.

[Amarda Shehu](#), Associate Professor, Department of Computer Science. Affiliate appointment in Department of Bioengineering. PhD: 2008, Computer Science, Rice University. Research interest: protein structure.

[Siddhartha Sikdar](#), Associate Professor, Department of Bioengineering. Joint appointment in the Electrical and Computer Engineering Department. PhD: 2005, Electrical Engineering, University of Washington. Postdoctoral fellow: 2005-2008, Department of Bioengineering, University of Washington. Research interest: medical ultrasound.

[James C. Thompson](#), Associate Professor, Department of Psychology, College of Science. PhD: 2002, Psychology, Swinburne University, Australia. Research interests: neural basis of the perception of human actions using behavior, fMRI and EEG.

[Iosif Vaisman](#), Professor and Associate Director, School of Systems Biology. PhD: 1990, USSR Academy of Science. Research interests: protein structure and function.

[Qi Wei](#), Assistant Professor, Department of Bioengineering. PhD: 2010, Computer Science, Rutgers University. Postdoctoral fellow: 2010-2012 Northwestern University. Research interests: computational biomechanics, neuromuscular systems, motor control.