



INSTITUTION

University of California, Los Angeles

EDUCATION

University of California, Los Angeles

Duke University School of Medicine

OLUJIMI A. AJIJOLA

Dr. Ajijola is an Assistant Professor in the departments of Medicine-Cardiology, and Molecular, Cellular, & Integrative Physiology at the University of California – Los Angeles (UCLA). Dr. Ajijola received his B.A. with Distinction from the University of Virginia, his medical degree from Duke University, and his Ph.D. in Molecular, Cellular, and Integrative Physiology from UCLA. His clinical training in internal medicine and cardiovascular diseases/cardiac electrophysiology were performed at the Massachusetts General Hospital/Harvard Medical School and at UCLA, respectively.

Dr. Ajijola's clinical and research interests revolve around innovative methods to control life-threatening cardiac arrhythmias by modulating the autonomic nervous system. His lab utilizes electrical, chemical, and computational tools to examine how cardiac injury remodels the autonomic nervous system, and how this dysregulation drives arrhythmogenesis. He is also an alumnus of the Howard Hughes Medical Institute's Medical Fellows Program, a recipient of the NIH Director's New Innovator Award (DP2), and a Young Physician Scientist Award from the American Society for Clinical Investigation.



INSTITUTION

University of California,
Merced

EDUCATION

University of California,
Berkeley
Michigan State University
University of Asmara

ASMERET ASEFAW BERHE

Prof. Berhe is an Associate Professor of Soil Biogeochemistry at the Life and Environmental Sciences unit, University of California, Merced. Prof. Berhe received her Ph.D. in Environmental Sciences, Policy, and Management (emphasis area Biogeochemistry) from the University of California, Berkeley; M. Sc. in Resource Development (emphasis on Political Ecology of Land Degradation) from Michigan State University, and B. Sc. in Soil and Water Conservation from University of Asmara, Eritrea. Dr. Berhe was a University of California President's Postdoctoral Fellow (2006-2008) at University of California, Berkeley and University of California, Davis. Her research focuses on biogeochemical cycling of essential elements (esp. carbon and nitrogen), in particular in systems that experience physical perturbations (ex. erosion, fire, changes in climate). Prof. Berhe is a recipient of several awards including the National Science Foundation's CAREER award, the Young Investigator Award from Sigma Xi, and the Hellman Family Foundations award for early career faculty.

Prof. Berhe currently serves: as the Chair of the US National Committee on Soil Science at the National Academies; in the Leadership board of the Earth Science Women's Network; and as Associate Editor for the scholarly journals Biogeochemistry and SOIL.



INSTITUTION

University of Virginia

EDUCATION

University of Virginia

Columbia University

University of Missouri

JOEL P. BAUMGART

Joel P. Baumgart is the Senior Research Program Officer in the Office of the Vice President for Research at University of Virginia, Adjunct Assistant Professor of Pharmacology at Cornell University Weill Medical College, and Associate Editor of the journal *Science & Diplomacy*. Prior to his current position, he was a U.S. Fulbright Scholar in Tanzania. Before his time abroad, Joel was an AAAS Science & Technology Policy Fellow in the Office of the Director at the NIH and a Mirzayan Science and Technology Fellow at the National Academy of Engineering.

In addition to his policy experience, Joel was a faculty member of the W.E.B. Du Bois Scholars Institute at Princeton University, a New York Academy of Sciences Education Fellow, an Epilepsy Foundation Predoctoral Fellow, Visiting Scholar at the Université de Montpellier, Visiting Associate Professor at the Catholic University of Health and Allied Sciences, and a writer at the Core Knowledge Foundation. Joel is a Diplomate of the American Board of Toxicology and was the recipient of the Eric W. Lothman Award for Outstanding Achievement in Neuroscience and the Award for Excellence in Scholarship in the Sciences & Engineering from UVA, and received the Zora Neale Hurston Thesis Award for the Social Sciences from Columbia University.



INSTITUTION

Northwestern University

EDUCATION

University of Illinois at
Urbana-Champaign

MICHELLE BIRKETT

Dr. Michelle Birkett is an Assistant Professor in the Department of Medical Social Sciences at Northwestern University and the Director of the CONNECT Complex Systems and Health Disparities Research Program in the Institute for Sexual and Gender Minority Health and Wellbeing. Dr. Birkett uses network and quantitative methodologies to understand the social contextual influence of stigma on the health of marginalized populations, in particular, sexual and gender minority youth. Her research is grounded in a multilevel perspective of health that considers direct and indirect social, relational and environmental influences. This multilevel approach underlies her interest in network data and her commitment to conducting research that advances social change to eliminate health disparities.

Dr. Birkett has led multiple NIH-funded projects, including a project focused on understanding network, multilevel and contextual influences on racial disparities in HIV within young men who have sex with men (K08 DA037825) and a project to develop a software suite, Network Canvas (R01 DA042711), to simplify the collection and management of complex social data. She hopes to utilize her experience bridging health and computational social science to inform the use of big data to better address large-scale health challenges – particularly those experienced by underserved and marginalized population.



INSTITUTION

Aquacycl, LLC

EDUCATION

University of Southern
California

University of Northern
Arizona

ORIANNA BRETSCHGER

A native of the Southwest, Orianna Bretschger grew up appreciating water issues. She received a B.S. in Physics and Astronomy at the University of Northern Arizona; and after a career in aerospace and government consulting, she subsequently found her way back to water while completing a Ph.D. at the University of Southern California. During her graduate work, she studied how microbes remove pollutants from water and produce electricity at the same time. Her time at USC also instilled a passion for education and mentorship. In 2008, Dr. Bretschger accepted a position at the J. Craig Venter Institute in San Diego where she continued her research and developed outreach programs highlighting microbiome activities in wastewater treatment and the importance of understanding the water cycle from a local and global perspective.

To-date, Dr. Bretschger's research has resulted in 31 publications, over 1000 citations, 3 book chapters, and 4 patents. Her research also led to technology development and in 2016, Dr. Bretschger founded Aquacycl LLC with her partners. Aquacycl is now commercializing sustainable wastewater treatment systems for industry, agriculture and emerging markets. Dr. Bretschger holds Adjunct Associate Professor positions at USC and San Diego State University to advance water research, technology, and education.



INSTITUTION

Jasper Consulting

EDUCATION

Brandeis University

University of Puerto Rico

FRANCES COLÓN

Dr. Frances Colón is the CEO of Jasper Consulting, a boutique firm that provides science, environment and technology policy advice to higher education institutions as well as state and national-level policy-makers. She is Mayor Francis Suarez's appointee to the City of Miami Sea Level Rise Committee and the former Deputy Science and Technology Adviser to the U.S. Secretary of State (2012-2017).

As a science diplomat in Washington D.C., Dr. Colón led the re-engagement of scientific collaboration with Cuba and coordinated climate change policy for the Energy and Climate Partnership of the Americas announced by President Obama. Dr. Colón is the founder of Cenadores Puerto Rico, a non-profit platform that facilitates collaboration between the Puerto Rican diaspora and civil society on the Island. In the aftermath of Hurricane Maria, Cenadores became a go-to for connecting experts, donors and policy-makers assisting Puerto Rico. In 2016, Dr. Colón was named one of the 20 most influential Latinos in technology by CNET and was a 2015-2016 Google Science Fair judge. Dr. Colón earned her Ph.D. in Neuroscience in 2004 from Brandeis University and her B.S. in Biology in 1997 from the University of Puerto Rico.



INSTITUTION

Data-Driven Institute

EDUCATION

Imperial College London

University of the West Indies

TYRONE GRANDISON

Dr. Tyrone W A Grandison is the Founder of the Data-Driven institute, which is a public health non-profit that helps communities and businesses transform raw data into insights, products, policy, and application. Dr Grandison is also a 2018 Zhi-Xing Eisenhower Fellow. Dr. Grandison was the first-ever Chief Information Officer (CIO) of the Institute of Health Metrics and Evaluation at the University of Washington.

Dr. Grandison advises the Government of Jamaica on their Information Technology strategy - as a member of the National Information and Communications Technology Advisory Council (2016-18). He was the Deputy Chief Data Officer (dCDO) at the US Department of Commerce (2015-16), where he co-founded the Commerce Data Service - a data startup within the Department that supported its twelve bureaus - and led the successful rollout of its first 15 products. He was also a White House Presidential Innovation Fellow (2014-15) working with the US Department of Labor and the US CENSUS Bureau on their data and API (application programming interface) initiatives.



INSTITUTION

University of Washington

EDUCATION

University of Connecticut

National University of Singapore

Indian Institute of Technology

FAISAL HOSSAIN

Faisal Hossain enjoys interacting with students at all levels and disciplines as part of his day job as a faculty in the Department of Civil and Environmental Engineering at the University of Washington. His night job where he devotes an equal amount of energy is about film-making and communication of science. He uses these to build bridges between communities and solve pressing problems for society. His research group at University of Washington focuses on improving livelihoods in challenging environments through sustainable application of earth science, remote sensing and advanced information technology to improve security for water, energy and food at local and regional scales.

His capacity building and education initiatives involving satellite remote sensing has resulted in several independently-owned satellite management system for Governments of several Asian nations for improved water, food and energy security. Currently, he serves as Editor for Journal of Hydrometeorology and Applications lead for Science Team of Surface Water Ocean Topography (SWOT) Satellite Mission that is scheduled for launch in 2021. He initiated the Engineering Student Film Contest at University of Washington in 2017 that is now planned as the nation's first and bi-annual student film festival for STEM majors as a way to explore the arts.



INSTITUTION

Oak Ridge National
Laboratory

EDUCATION

University of Tennessee,
Knoxville
University of Notre Dame
Hope College

COLLEEN IVERSEN

Colleen Iversen is an ecosystem ecologist who uses a variety of field and laboratory techniques to understand and predict how ecosystems are shaped by environmental change. Her work takes her from upland forests to soggy peatlands to thawing arctic tundra, chasing a better understanding of the secret lives of roots hidden beneath the soil surface. She works at the millimeter scale to answer a global question: how will ecosystems respond to the climate of the future? Iversen is a Senior Staff Scientist in the Environmental Sciences Division at Oak Ridge National Laboratory, and serves as a Theme Lead in the Climate Change Science Institute.

She has published more than 50 papers in high-impact journals ranging from *New Phytologist* to the *Proceedings of the National Academies of Sciences*. She serves on the Editorial Advisory Board for the journal *New Phytologist* and is an elected Early Career Fellow of the Ecological Society of America. Iversen sees science communication as the foundation for a shared understanding of society's future, and she has shared her scientific vision on Public Radio International's 'Science Friday', and in the Alda School's 'Flame Challenge', as well as in organized symposia, sessions, and workshops. For more information, visit www.colleeniversen.com.



INSTITUTION

IBM Research – Almaden

EDUCATION

University of Michigan
Tsinghua University

YUNYAO LI

Yunyao Li is a Master Inventor, Research Manager, and Research Staff Member with IBM Research - Almaden, where she manages the Scalable Natural Language Processing group. She is also a member of IBM Academy of Technology. Her expertise is in the interdisciplinary areas of databases, natural language processing, human-computer interaction, and information retrieval. She is a widely recognized expert in these areas both within IBM and in the external research community, with 40+ research publications and 20+ patents granted/filed in these areas. She received her PhD degree and master's degrees from the University of Michigan, Ann Arbor and undergraduate degrees from Tsinghua University, Beijing, China.

Yunyao is passionate about improving the diversity for the STEM field. She has been actively mentoring women and under-represented minorities for over ten years. She has been serving on the MentorNet Mentor-Protégé Council since 2013 and the External Advisory Board for the Computer Science Department of the San Jose State University since early 2016. She also has cofounded and currently leading Almaden Women's Interest Network Group, aiming to provide a networking forum for technical women in IBM Almaden Research Center, advance women in technology and enhance the diverse work force.



INSTITUTION

University of Southern
California
DiD AI Labs

EDUCATION

Carnegie Mellon University

YAN LIU

Yan Liu is an associate professor in Computer Science Department at University of Southern California, and the Chief Scientist in DiD AI Labs. She is Director of USC Machine Learning Center (MASCLE) and holds Philip and Cayley MacDonald Endowed Early Career Chair. Before joining USC, she was a Research Staff Member at IBM Research. She received her Ph.D. degree from Carnegie Mellon University in 2007.

Her research interest is developing scalable machine learning models for time series data and structured data with applications to health care, transportation and social media analysis. She has received several awards, including NSF CAREER Award, Okawa Foundation Research Award, ACM Dissertation Award Honorable Mention, Best Paper Award in SIAM Data Mining Conference, 6/9 Yahoo, IBM and Facebook Faculty Award and the winner of several data mining competitions, such as KDD Cup and INFORMS data mining competition.



INSTITUTION

Federation of American
Scientists

EDUCATION

Princeton University
Reed College

ALI NOURI

Dr. Ali Nouri is the President of the Federation of American Scientists. Until recently, he served as legislative director and national security advisor to U.S. Senator Al Franken (D-MN) where he oversaw the work of the Senator's legislative team, drafted and negotiated bills, and represented the Senator in various fora. Nouri came to Capitol Hill in 2008 and joined Senator Jim Webb's office (D-VA) first as an AAAS Congressional Science and Engineering Fellow and then as an advisor on issues related to science, energy, and environment. He currently serves as chair to the AAAS Science and Engineering Fellowship Advisory Board.

Prior to coming to Capitol Hill, he was an advisor to the office of the UN Secretary General, and a research associate at Princeton University's Woodrow Wilson School where he developed initiatives to maximize the beneficial applications of biotechnology to global health, while working to cut off pathways through which biotech can be used to develop biological weapons.

Nouri holds a B.A. in Biology from Reed College and a Ph.D. in Molecular Biology from Princeton University.



INSTITUTION

Vanderbilt University

EDUCATION

University of Pennsylvania
Massachusetts Institution of
Technology

CYNTHIA REINHART-KING

Cynthia Reinhart-King is the Cornelius Vanderbilt Professor of Biomedical Engineering at Vanderbilt University. Prior to joining Vanderbilt in 2017, she was on the faculty of Cornell University where she received tenure in the Biomedical Engineering Department in 2013. She obtained her undergraduate degrees in chemical engineering and biology at MIT and her PhD at the University of Pennsylvania in bioengineering as a Whitaker Fellow. She received postdoctoral training as an NIH NRSA postdoctoral fellow at the University of Rochester. Dr. Reinhart-King's current research interests are in cell mechanics and migration in cancer and atherosclerosis. Her lab has received funding from numerous agencies including the National Institutes of Health and the National Science Foundation.

She was awarded the Rita Schaffer Young Investigator Award from the Biomedical Engineering Society, an NSF CAREER Award, the 2010 Sonny Yau '72 Excellence in Teaching Award, a 2013 Cook Award for "contributions towards improving the climate for women at Cornell," and the 2015 Zellman Warhaft Commitment to Diversity Award from Cornell. She served on the Board of Directors of the Biomedical Engineering Society from 2014-2017. She is a fellow of the Biomedical Engineering Society and the American Institute for Medical and Biological Engineering.



INSTITUTION

The Dow Chemical
Company

EDUCATION

Virginia Tech University
University of Calcutta

ABHISHEK ROY

Dr. Abhishek Roy is a Scientist at The Dow Chemical Company with a passion for addressing global challenges of energy and water. The journey started in 2003 with fuel cells at Virginia Tech to current research at Dow (Hydrocarbons) towards energy efficient separation processes. Recipient of the prestigious Gordon E. Moore Medal from SCI, Dr. Roy's most significant contribution is reducing the energy requirements of water purification (BWRO) by 30 % and improving water quality by 40% (DOW FILMTEC™ ECO) through the invention of a breakthrough terpolymer membrane chemistry. With experience in technical and R&D leadership, customer interactions, he developed several membrane technologies enabling 10+ reverse osmosis products. A major impact is in the residential segment where these innovations are providing drinkable water in India and China.

Dr. Roy coauthored 100+ scientific articles and presentations and is an inventor of 23 granted U.S. patents. Notable awards include Edison award, Dow's presidential sustainability Innovator award, Influential Researcher IE&C, and outstanding recent graduate alumnus from Virginia Tech. He participated in Dow's Leadership In Action program for rehabilitation of Creeks in Cebu, Philippines. Born in Kolkata, India, Abhishek currently lives with his beloved wife Mou and twin boys, Aharshi and Anush in Houston.



INSTITUTION

Nike, Inc

EDUCATION

University of California,
Davis
Cornell University

ALISON SHEETS-SINGER

Alison Sheets-Singer leads a Biomechanics Team in the Nike Sport Research Lab focused on creating products and services that amplify the performance of athletes of all abilities. Prior to joining Nike, Dr. Sheets-Singer was an Assistant Professor at The Ohio State University in the Department of Mechanical and Aerospace Engineering. She received her B.S. in Mechanical Engineering from Cornell University, Ph.D. in Mechanical Engineering from the University of CA, Davis, and was Postdoctoral Researcher at Stanford University. In these roles, Dr. Sheets-Singer used experimental approaches and computer simulation, modeling, and optimization to research topics including: optimal gymnastics performance, landing dynamics, tennis serve technique, dynamics of throwing with a lacrosse stick, and quantifying human and animal motion using markerless tracking techniques.

Dr. Sheets-Singer is a recipient of the Andrzej Komor New Investigator Award from the International Society of Biomechanics, Technical Group on Computer Simulation for her work related to optimizing gymnastics performance. Additionally, Dr. Sheets-Singer was an invited speaker at the 2012 Japan America Frontiers of Engineering Symposium sponsored by the National Academy of Engineering.



INSTITUTION

University of North Carolina
at Chapel Hill

EDUCATION

University of Buenos Aires,
Argentina

PATRICIA SILVEYRA

Dr. Patricia Silveyra is an Associate Professor, Director of the Biobehavioral Laboratory, and Beerstecher-Blackwell Distinguished Term Scholar at The University of North Carolina at Chapel Hill School of Nursing. Her laboratory studies mechanisms of lung inflammation triggered by air pollution exposure, with an emphasis on sex differences and the role of sex hormones. She received her MSc degree in Molecular Biology and her PhD in Biochemistry from the University of Buenos Aires, Argentina, and she did her postdoctoral training at Penn State University, where she studied mechanisms of surfactant protein expression in alveolar cells. She later joined the faculty at Penn State College of Medicine as an Assistant Professor in 2013 after receiving an NIH BIRCWH award, and then promoted to Associate Professor in 2018. Currently, she holds K01 and R03 grants from NHLBI to study sex differences in air pollution-induced lung inflammation and asthma.

She is a mentor and advocate for women and underrepresented minority students. She serves in various national organizations and committees, including the American Physiological Society, the Organization for the Study of Sex Differences, and the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) where she is both Treasurer-elect and member of the Board of Directors.



INSTITUTION

Georgia Institute of
Technology

EDUCATION

University of California, San
Diego

LAUREN STEWART

Dr. Lauren Stewart is an Assistant Professor in the School of Civil and Environmental Engineering at the Georgia Institute of Technology. She received the NDSEG Fellowship from the Army Research Office to support her Ph.D. in Structural Engineering at the University of California, San Diego, where she also completed her M.S. and B.S. Dr. Stewart is Director of the Structural Engineering and Materials Laboratory at Georgia Tech, and her research employs innovative experimental strategies to investigate the behavior of structures subjected to extreme environments (e.g., blast, ballistics, earthquakes). These strategies are then further used to characterize materials, develop computational models, and create design strategies, thus improving the safety of infrastructure. Specifically, her research on explosive and shock effects has influenced various national security programs for agencies including Air Force Research Laboratory, US Army ERDC, and Office of Naval Research.

Since joining Georgia Tech, she received the CEE Research Program Development Award, the Bill Schutz Junior Faculty Teaching Award, honored as an Air Force Summer Faculty Fellow, and named a 2017 Rising Star in Structural Engineering. In 2014, Dr. Stewart started the Tech Vets program, which engages U.S. veterans and active duty military into her research programs.



INSTITUTION

MIT and Global Engineering
and Research (GEAR)
Laboratory

EDUCATION

Massachusetts Institute of
Technology
Tufts University

AMOS WINTER

Amos Winter is the Ratan N. Tata Career Development Associate Professor of Mechanical Engineering at MIT and Director of the Global Engineering and Research (GEAR) Laboratory. His research focuses on machine and product design for developing and emerging markets, with particular applications to irrigation, water purification, assistive devices, and power systems. Prof. Winter earned a BS from Tufts University (2003) and an MS (2005) and PhD (2011) from MIT, all in mechanical engineering.

He received the 2010 Tufts University Young Alumni Distinguished Achievement Award, the 2012 ASME/Pi Tau Sigma Gold Medal, was named one of the MIT Technology Review's 35 Innovators Under 35 (TR35) for 2013, and received the MIT Edgerton Faculty Achievement Award and an NSF CAREER award in 2017. Prof. Winter is also the principal inventor of the Leveraged Freedom Chair (LFC) developing world wheelchair, which was a winner of a 2010 R&D 100 award, named one of the Wall Street Journal's top innovations in 2011, received a Patents for Humanity award from the U.S. Patent and Trademark Office in 2015, and was the subject of "Engineering Reverse Innovations", winner of the 2015 McKinsey Award for the best article of the year in Harvard Business Review.