

## BIOGRAPHIES

### KEYNOTE & FEATURED SPEAKER



**Lauren S. Hughes, MD, MPH, MSc, FAAFP**, is a practicing family physician and Deputy Secretary for Health Innovation in the Pennsylvania Department of Health. Prior to joining the Department, she was a Robert Wood Johnson Foundation Clinical Scholar at the University of Michigan where she studied health services research. Dr. Hughes served as the national president of the American Medical Student Association for one year prior to completing her residency at the University of Washington in Seattle. She has volunteered through AmeriCorps in a federally qualified health center, worked for Iowa Senator Tom Harkin, and studied medicine and health systems in Brazil, Sweden, Tanzania, and Botswana. Dr. Hughes has also been a visiting scholar at the Robert Graham Center, ABC News Medical Unit in New York City, the Center for Medicare and Medicaid Innovation, and The Commonwealth Fund. In 2015, she was named a regional finalist in the White House Fellows program, and in 2016, a recipient of the Women Leaders in Medicine Award from the American Medical Student Association and the Early Career Achievement Award from the University of Iowa Carver College of Medicine.



**Dr. Abiodun Ilumoka** serves as a National Science Foundation Program Director: Improving Undergraduate STEM Education: Education and Human Resources. The fields of science, technology, engineering, and mathematics (STEM) hold much promise as sectors of the economy where we can expect to see continuous vigorous growth in the coming decades. STEM job creation is expected to outpace non-STEM job creation significantly, according to the Commerce Department, reflecting the importance of STEM knowledge to the US economy. Dr. Ilumoka will highlight how NSF funding, through authentic research experiences in student education, makes an impact.

### INDUSTRY PANEL



**Terry Talbot** is the Vice President and General Manager at Siemens Healthcare. Mr. Talbot has spent more than 35 years in Healthcare and has held numerous executive level positions. Early in his career, Terry sailed the world as a naval cadet at the Maritime Academy, and was an Air Traffic Controller. He has taken advantage of these varied experiences to build a unique, colorful career and skill set.

With a deep background in Healthcare Information Technology and Medical Equipment, Terry has been a keynote speaker and presenter at numerous National Healthcare conferences, including America's Essential Hospitals, U.S. News and World Report CEO Conference, Association of University Radiologists, and The Radiological Society of North America. His observations and recommendations for the organization of Healthcare Institutions have been published in the Journal of Healthcare Information Management Solutions.

Additionally, Terry has served as a Director on several Healthcare Institutional, Healthcare Research, Charitable Boards and Governance groups. Currently, he serves as a Director on 5 varied Boards. Terry has also served as an executive advisor to the Munich, Germany school district, and a troubled Pennsylvania school district.

Innovation and organizational excellence are both the result and the building blocks of Terry's career success. Organization structure, constructing the right team, and communication to drive metrics, are the focus of his internal coaching and external teaching. The customer and customer intimacy are always at the locus.

Terry has negotiated of over 350 complex agreements, as well as mediating numerous complex disputes, both inside healthcare and out. His stated goal in these potentially stress filled endeavors is to build a stronger bond and relationship between the parties, and believes strongly in the credo, "Strength and partnership through adversity". He has lectured in education forums on a variety of topics, including the art and mechanics of negotiation, persistence, and leadership building.

In his personal life, Terry utilizes these same skills and coaching techniques in his work as a Guardian ad Litem (representing abused and neglected children in the court system), soccer coach and proud father of four.

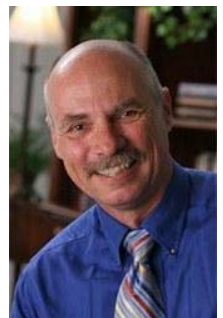


**Robert Marsh** is the Chief Technology Officer for NLP Logix. Robert began his business and technology career at Scientific Games, an Atlanta-based software company that supported state lotteries, where he gained early exposure to integrating probabilistic computing results into a production environment. Over the course of the next ten years Robert worked in senior software development including engineering team leadership roles at NextGen, a large provider of electronic healthcare records; Intelligenxia, an advanced text analytics integration provider; DMEautomotive, a leader in direct marketing and message optimization; and MDI, where he was Director of Software Development, leading a team of software professionals developing and integrating auto-adjudication solutions into workflows within the healthcare industry. Robert was raised in Augusta, Georgia and holds a Bachelor's Degree in Management Information Systems from the University of Georgia – Terry College of Business. He and his wife Shelley have been married over 15 years, have two children and reside in Ponte Vedra Beach, Florida.



**Douglas Barker** is the Chief Operating Officer at Energid Technologies. He manages project teams focused on Energid commercial service contracts and product development for Actin® robotic control software. Previously, he was a Lead Project Engineer at the Naval Surface Warfare Center and has been the Principal Investigator (PI) for multiple NASA and DARPA projects. Douglas received a Ph.D. from the University of Illinois at Urbana-Champaign on the development of a real-time particle tracking system for large-scale 3D flow-field measurement.

## PENN STATE LEADERSHIP



**Dr. Neil A. Sharkey** was appointed interim vice president for research at Penn State on August 1, 2013, and vice president for research on September 19, 2014. In this role, Sharkey is responsible for overseeing a research enterprise with annual expenditures consistently exceeding \$800 million dollars. Sharkey joined the faculty at Penn State as a professor of kinesiology, orthopaedics and rehabilitation in 1997. In August 2007, he was appointed associate dean for research and graduate education in the College of Health and Human Development. Prior to that appointment, Sharkey served as director of research in the Department of Kinesiology from 2004 to 2007. He also served as acting director of the Center for Locomotion Studies in the Department of Kinesiology from 2002 to 2004.

Sharkey received a bachelor's degree in physiology and a Ph.D. degree in comparative pathology, both from the University of California-Davis. His research is aimed at advancing orthopedic medicine through improved understanding, better diagnosis and more efficacious surgical procedures. Sharkey has been well funded throughout his career by the National Institutes of Health and various foundations. He has published extensively in peer-reviewed journals and has delivered innumerable professional presentations pertaining to orthopedic medicine, skeletal tissue mechanics and musculoskeletal biomechanics.

Sharkey has served on a variety of college and university committees in addition to national committees and panels pertaining to his areas of research. He is a member of the Huck Institutes of the Life Sciences at Penn State, and he holds numerous professional memberships, including in the American Society of Biomechanics, the Orthopaedic Research Society and the American Society for Bone and Mineral Research. He is a council member of the Oak Ridge Associated Universities (ORAU) Council of Sponsoring Institutions.

**Source:** please visit [here](#) for more info.



**David J. Gray** has served as Senior Vice President for Finance & Business/Treasurer at The Pennsylvania State University since February 2012. As Senior Vice President for Finance & Business, David is responsible for the management of Finance & Business and the strategic planning process for the unit, which includes the offices of Auxiliary and Business Services, Commonwealth Operations, Corporate Controller, Diversity and Inclusion, Enterprise Project Management, Ethics and Compliance, Human Resources, Information Technology, Internal Audit, Investment Management, Physical Plant, and University Police and Public Safety. He also leads financial, endowment management, business and administrative activities at all Penn State campuses. In this capacity, he serves as a member of the Board of Directors for the Penn State Health, the University's academic medical enterprise. In addition, David serves as a member of the President's Council and the Board of Directors for the Corporation for Penn State, and chairs the Penn State Investment Council.

**Source:** please visit [here](#) for more info.

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**Dr. Leslie Parent** graduated from Dartmouth College in 1983 and earned her MD at Duke University School of Medicine in 1987. During medical school, she was a Howard Hughes Medical Institute Research Scholar at the National Institutes of Health, and she was elected into Alpha Omega Alpha.

She completed her residency in the clinician-investigator pathway in internal medicine at Duke.

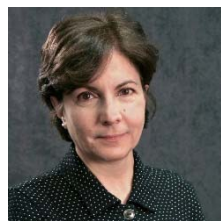
In 1991, she arrived at the College of Medicine as a fellow in infectious diseases, and in 1995 she was appointed as an assistant professor.

Throughout the years, she rose through the ranks until achieving her current position as a tenured professor of medicine with a joint appointment in microbiology and immunology and Chief of the Division of Infectious Diseases and Epidemiology.

She has served in several leadership roles, including co-director of the MD/PhD Program, co-leader of pilot studies in the Penn State Clinical and Translational Science Institute, chair of the College of Medicine Promotion and Tenure Committee, and co-chair of the Scientific Review Committee. She has been recognized with numerous honors and awards, including the Hinkle Society Outstanding Junior Investigator Award; Dean's Award for Excellence in Teaching; the Excellence in Mentoring Award from the Department of Medicine; and being named a fellow in the American Academy of Microbiology, American College of Physicians, and the Infectious Disease Society of America.

Dr. Parent is a highly respected physician-scientist whose research focuses on understanding how retroviruses, including the human immunodeficiency virus, co-opt cellular machinery to assemble new virus particles to spread infection. She has been funded by the National Institutes of Health since 1993, and she currently has an R01 and a project on a P50 Center grant to support her research laboratory. She has served on NIH study sections, and she is on the editorial board of the Journal of Virology. **Source:** please visit [here](#) for more info.

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**Dr. Janis Terpenny** is the Peter and Angela Dal Pezzo Department Head of the Harold and Inge Marcus Department of Industrial and Manufacturing Engineering at Penn State. Prior to joining Penn State in 2015, Dr. Terpenny was the Joseph Walkup Professor and chair of the Department of Industrial and Manufacturing Systems Engineering at Iowa State University. She was also the director of Iowa State's Center of e-Design, a National Science Foundation (NSF) Industry University Collaborative Research Center, and she served as the technical lead of the Digital Manufacturing and Design Innovation Institute's Advanced Manufacturing Enterprise Area. Dr. Terpenny has held faculty positions at Virginia Tech and the University of Massachusetts. She also served as the program director for the NSF Division of Undergraduate Education. **Source:** please visit [here](#) for more info.

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**Dean Justin Schwartz** received a B.S. with Highest Honors from the University of Illinois at Urbana-Champaign and a Ph.D. from the Massachusetts Institute of Technology. After serving as one of the first Science and Technology Agency of Japan Fellows at the National Research Institute for Metals, Japan, he joined the University of Illinois at Urbana-Champaign as an Assistant Professor.

In 1993, Dean Schwartz joined the newly-formed National High Magnetic Field Laboratory and the Department of Mechanical Engineering at Florida State University, where he served as the Leader of the HTS Magnets and Materials Group. In 2003, his research group, in collaboration with Oxford Instruments, established the world record for magnetic field generation by a superconducting material.

In 2009, he joined North Carolina State University as the Kobe Steel Distinguished Professor and Head of the Department of Materials Science and Engineering. In this role he led the rapid expansion of his department, guiding them upwards in the national rankings from 31st to 15th, while more than doubling the research portfolio and endowment.

He joined Penn State as the Harold and Inge Marcus Dean of Engineering in August 2017. Dean Schwartz's research interests include superconducting, magnetic and multiferroic materials and the systems they enable. He has published more than 240 peer-reviewed journal articles and has graduated 44 Ph.D. and M.S. students in six academic disciplines, including fifteen female, six under-represented minorities. Dean Schwartz is a Fellow of the IEEE, AAAS, and ASM. **Source:** please visit [here](#) for more info.

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**Dr. Conrad Tucker** holds a joint appointment as Associate Professor of Engineering Design and Industrial and Manufacturing Engineering at The Pennsylvania State University. He is also affiliate faculty of Computer Science and Engineering. His research interests are in formalizing system design processes under the paradigm of virtual design, machine learning and optimization. Dr. Tucker is currently the PI on two multi-year NSF grants that investigate the impact of computer vision systems and machine learning algorithms in providing real-time, customized feedback to designers during the engineering design process. He is also the PI and Site Director of the NSF I/UCRC Center for Healthcare Organization Transformation (CHOT), where the broader impacts of his engineering design methodologies are applied in the healthcare domain. Dr. Tucker is part of the inaugural class of the Gates Millennium Scholars program, funded by a \$1 billion grant from the Bill and Melinda Gates Foundation.



**Dr. Nilam Ram** is a Professor of Human Development and Family Studies, and Psychology in the College of Health and Human Development. His current research interests have grown out of a history of studying change. After obtaining his undergraduate study of economics, Dr. Ram was lucky enough to land a job as a currency trader. There he studied the movement of world markets as they jerked up, down and sideways. Later he moved on to the study of human movement, kinesiology, and eventually psychological processes - with a specialization in longitudinal research methodology. Generally he studies how short-term changes (e.g., processes such as learning, information processing, etc.) develop over the course of the lifespan and how intraindividual change and variability study designs (e.g., measurement bursts) might contribute to our knowledge base. Current projects include examinations of: age differences in short-term dynamics at the cognitive/affective/temperament interface; cyclic patterns in the day-to-day progression of emotions; and change in cognition and well-being over the lifespan, particularly in the oldest old. Methodologically, he is also working to develop a variety of multi-person extensions of intraindividual analytic methods and investigating how we can maintain a focus on the individual while still tackling issues of aggregation and generalizability. **Source:** please visit [here](#) for more information.



**Dr. Chris DeFlitch** is the Chief Medical Information Officer at Hershey Medical Center and Co-PI and Co-Founder of CHOT. DeFlitch served as an Emergency Physician at Hershey since 1998, after residency at UMASS and 1 yr in Private Practice. After 5 years in the role of Physician leader for Information systems for he agreed to the CMIO role to further the mission of changing healthcare by engineering the processes of care with IT. In 2009, he co-founded the Center for Integrated Healthcare Delivery Systems (CIHDS), now CHOT, as a venue for students and faculty to collaborate on the complex issue of healthcare. DeFlitch is also the Founder, CIO and Chief Executive Science Officer of Patient Flow Rx (PFRx). **Source:** please visit [here](#) for more information.



**Melissa Brannen** joined the CHOT team in May 2017. Brannen brings over 20 years of experience to CHOT in varied industries that has encompassed engineering, IT business solutions, business development, and research administration. She is currently pursuing her Masters in Organization Development and Change. Prior to joining Penn State CHOT, Brannen worked in the research administration community at Penn State. Her work on Penn State's SIMS (Strategic Information Management System) research applications at the Office of Research Information Systems developed her interest in research administration. She has worked with a diverse range of faculty and sponsors in Engineering, the College of Agricultural Sciences, and the Eberly College of Science to facilitate multidisciplinary research projects. Melissa is energized by her CHOT appointment and plans on working to leverage her previous experience to help manage and grow the Center to further the mission of creating healthcare delivery solutions through collaborative research, education, and outreach hand-in-hand with faculty, students, and industry partners.