JOHNS HOPKINS
BIOMEDICAL ENGINEERING

BME Special Seminar

Rigoberto Hernandez, PhD

Gompf Family Professor in the Department of Chemistry at the Johns Hopkins University, and the Director of the Open Chemistry Collaborative in Diversity Equity (OXIDE)

Monday, November 10, 2023

11:00 a.m., Clark 110 &

Webinar Format (Details TBA)

Faculty Host: Warren Grayson

Discipline-Based Diversity Research (DBDR) & Inclusive Excellence

Abstract: The Open Chemistry Collaborative in Diversity Equity (OXIDE) is aimed at institutional reform so as to lower inequitable barriers hindering the success of faculty from diverse groups. We implement the "top-down" hypothesis by asserting that academic middle managers---namely, department heads and chairs---held accountable for diversity and inclusion will make sustained and significant improvements in the representation and climate of their deportments. The collaborative itself is a partnership with the department heads of research-active chemistry departments, social scientists and other key stakeholders. The lowering of these barriers increases the likelihood that individuals already in the tenure pipeline will have equitable chances of success and thereby leads to changes in faculty demographics closer to those of the broader U.S. population. The creation of a more equitable climate is also expected to encourage more disadvantaged students to enter academic careers in the chemical sciences. We will report on OXIDE's approaches to increase awareness of effective policies and practices that decrease inequitable barriers and improve the diversity climate in research-active chemistry departments. We will discuss how these findings can inform the intentional management of inclusive excellence in related departments, and why the lens of discipline-based diversity (DBDR) research is needed.

Bio: Dr. Rigoberto Hernandez is the Gompf Family Professor in the Department of Chemistry at the Johns Hopkins University, and the Director of the Open Chemistry Collaborative in Diversity Equity (OXIDE). He is also a Professor in the Departments of Chemical and Biomolecular Engineering, and Materials Science and Engineering at Johns Hopkins University. Before joining Hopkins in 2016, he was a Professor in the School of Chemistry and Biochemistry at Georgia Tech for 20 years. He was born in Havana, Cuba and is a U.S. Citizen by birthright. He holds a B.S.E. in Chemical Engineering and Mathematics from Princeton University (1989), and a Ph.D. in Chemistry from the University of California, Berkeley (1993). He is a theoretical and computational chemist who originated the field of chemical dynamics in complex environments (through a biennial Telluride Workshop since 2001). He has published over 165 articles in theoretical and computational chemistry and discipline-based diversity research in chemistry. His current projects involve questions pertaining to nonequilibrium chemical dynamics in multi-scale systems, fundamental advances in transition state theory, design principles for sustainable nanotechnologies, the thermodynamics of protein unfolding and rearrangement, the design of autonomous computing materials, and the use of machine learning in energy materials discovery. His group's research is presently supported by the NSF, the DOE and the Sloan Foundation.

Dr. Hernandez is the recipient of a National Science Foundation (NSF) CAREER Award (1997), Research Corporation Cottrell Scholar Award (1999), the Alfred P. Sloan Fellow Award (2000), a Humboldt Research Fellowship (2006-07), the ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences (2014), the CCR Diversity Award (2015), the RCSA Transformative Research and Exceptional Education (TREE) Award (2016), the Herty Medal (2017), the Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences (2018), and the RCSA IMPACT Award (2020). He is a Fellow of the American Association for the Advancement of Science (AAAS, 2004), the American Chemical Society (ACS, 2010), the American Physical Society (APS, 2011), and the Royal Society of Chemistry (FRSC, 2020). He was a Phi Beta Kappa Visiting Scholar in 2015-2016. He previously served as the District IV Director on the ACS Board of Directors (2014-2019). He currently serves on the Sloan MPHD Advisory Committee (since 2013), and as the Chair of the APS Division of Chemical Physics.