



# ACS-GHS September Seminar



## *Benign by Design from the Nanoscale to the Human Scale*

### **ABSTRACT:**

The nanoparticles we make today to address problems in energy and human health will enter the environment tomorrow. But will they be benign or will they lead to deleterious downstream effects to our environment? The Center for Sustainable Nanotechnology is developing and benchmarking design principles for sustainable nanoparticles. Our group contributes the theoretical and computational frameworks to bridge the molecular scale structure and motion to macro and meso scale behavior of nanoparticles in heterogeneous environments. This includes contact with model membranes and other constituents found in the cellular matrix.



***When: Thursday, 27 September, 2018; 7:00 pm***

***Where: RICE University***

***Dell Butcher Hall DBH180,  
6100 Main St., Houston, TX 77005***

Directions: Dell Butcher Hall is located on the corner of Campanille Road and Alumni Drive on the RICE campus. Room #180 is located across the small courtyard outside the lobby.

Parking: Visitors parking is available at the North lot and North Annex lot. Both lots can be accessed via Entrance 20 off Rice Blvd.

### **BIO:**

Dr. Rigoberto Hernandez is the Gompf Family Professor in the Department of Chemistry at the Johns Hopkins University as of July 2016, and remains as the Director of the Open Chemistry Collaborative in Diversity Equity (OXIDE) since 2011. Before Hopkins, he was a Professor in the School of Chemistry and Biochemistry at Georgia Tech, and Co-Director of the Center for Computational Molecular Science and Technology he co-founded. 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). His research area can be broadly classified as the theoretical and computational chemistry of systems far from equilibrium. His current projects involve questions pertaining to the diffusion of mesogens in colloidal suspensions and liquid crystals, the structure and dynamics of assemblies of Janus and other patchy particles, fundamental advances in transition state theory, design principles for sustainable nanotechnologies and the dynamics of protein folding and rearrangement.

### **RSVP:**

[https://docs.google.com/forms/d/1dmtDRxf4ZYCZanp1AnT4z19dBgokWuskBHZ\\_437ZHTg](https://docs.google.com/forms/d/1dmtDRxf4ZYCZanp1AnT4z19dBgokWuskBHZ_437ZHTg)