2016 Cottrell Scholars

Through its Cottrell Scholar program, Research Corporation for Science Advancement nurtures outstanding teacher-scholars recognized for innovative, high-quality research as well as academic leadership skills. In addition to the 24 new scholars awarded $100,000 each this year, two accomplished Cottrell Scholars have received RCSA's TREE Award (Transformational Research and Excellence in Education). The TREE Award celebrates integration of outstanding research and science education at America's universities and colleges.

"RCSA believes the right combination of high-caliber research integrated with modern, interactive educational tools creates the perfect environment for scientific breakthroughs and outstanding learning outcomes for the next generation of U.S. scientists."

Robert Shelton, President, Research Corporation for Science Advancement

2016 Cottrell Scholar Awardees

NANDINI ANANTH
Assistant Professor of Chemistry, Cornell University
Quantum Dynamic Investigations of Photo-induced Electron Transfer Catalyzed by Transition Metal Complexes

JOHN M. ANTOS
Assistant Professor of Chemistry, Western Washington University
Structural Characterization of Substrate Promiscuity in Bacterial Sortases

TAMARA BOGDANOVIC
Assistant Professor of Physics, Georgia Institute of Technology
Shedding Light on Supermassive Black Holes

EVA-MARIA SCHOETZ COLLINS
Assistant Professor of Physics, University of California, San Diego
Unraveling the Role of Mechanics for Tissue Self-organization In Vivo

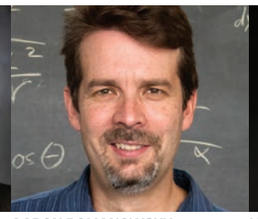
KATHRYN L. HAAS
Assistant Professor of Chemistry, Saint Mary's College, Indiana
Transporting Cu(I) as Cargo and Using Cu(III) as a Killer Cofactor

ELIZA KEMPTON
Assistant Professor of Physics, Grinnell College
Atmospheric Structure and Emission Spectrum Calculations for Extrasolar Super-Earths: Looking Toward JWST and Beyond

DUŠAN KEREŠ
Assistant Professor of Physics, University of California, San Diego
Using Cosmological Hydrodynamic Simulations to Constrain Evolution of Galaxies and Their Gaseous Halos

DMYTRO KOSENKOV
Assistant Professor of Chemistry, Monmouth University
Exciton Energy Transfer in Light Harvesting Proteins with Covalently Bound Pigments: The Role of Molecular Vibrations

WILLIAM C. K. POMERANTZ
Assistant Professor of Chemistry, University of Minnesota, Twin Cities
Fluorinated Peptides and Proteins for ^{19}F MRI and Integrated Research Experiences in an Organic Chemistry Lab Course



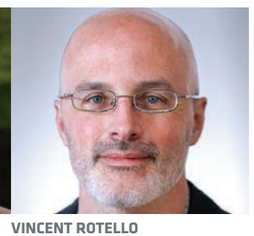
AARON ROMANOWSKY
Assistant Professor of Physics, San Jose State University
The Nature and Nurture of Galaxies: Dynamics, Dark Matter, and Data Mining

MICHAEL J. ROSE
Assistant Professor of Chemistry, University of Texas at Austin
Imparting Precious Metal Properties to First-Row Metals with Heavy Atom Ligands

SCOTT K. SHAW
Assistant Professor of Chemistry, University of Iowa
Characterization and Control of Molecular Architectures within Thin Fluid Films

2016 TREE Awardees

RIGOBERTO HERNANDEZ
Chemistry, Georgia Institute of Technology, Cottrell Scholar 1999



VINCENT ROTELLO
Chemistry, University of Massachusetts, Amherst, Cottrell Scholar 1996

JAHAN DAWLATY
Assistant Professor of Chemistry, University of Southern California
A New Handle in Solar-to-Fuel Light Harvesting: Creating Protons Where They are Most Needed

RAFAEL M. FERNANDES
Assistant Professor of Physics, University of Minnesota, Twin Cities
A Tale of Two States: Interplay between Magnetism and Superconductivity in Quantum Materials

SERGEY FROLOV
Assistant Professor of Physics, University of Pittsburgh
Experimental Investigation of One-Dimensional Topological Phases

SHARON GERBODE
Assistant Professor of Physics, Harvey Mudd College
Interactions between Impurities and Dislocations in Small Colloidal Crystals

AARON LECONTE
Assistant Professor of Chemistry, The Claremont Colleges
Biochemical Characterization and Engineering of Luciferases through Statistical Coupling Analysis

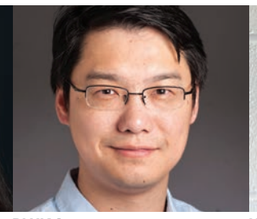
THOMAS MAIMONE
Assistant Professor of Chemistry, University of California, Berkeley
Redesigning Natural Products for the Treatment of Human Disease

BRENT C. MELOT
Assistant Professor of Chemistry, University of Southern California
Design of Safe and Sustainable Materials to Enable Large-Scale Energy Storage

MAIKEN H. MIKKELSEN
Assistant Professor of Physics, Duke University
Exploring the Interplay between Nanoscale Design and Optical Properties of Materials: A Research and Educational Approach

LEVI STANLEY
Assistant Professor of Chemistry, Iowa State University
Catalyst Design and Development to Unlock the Synthetic Potential of Olefin Hydroacylation Reactions

LAUREN WATERS
Assistant Professor of Chemistry, University of Wisconsin, Oshkosh
Manganese Homeostasis in Bacteria: Characterization of a Mn-Regulated Small Protein and Identification of Novel Mn Exporters



DI XIAO
Assistant Professor of Physics, Carnegie Mellon University
Topological Excitonics in Gapped Dirac Materials

YAN YU
Assistant Professor of Chemistry, Indiana University at Bloomington
Exploiting Nanomaterials to Unravel Trafficking Inside Cells

For additional information visit
www.rescorp.org or call 520.571.1111.

RESEARCH CORPORATION
for SCIENCE ADVANCEMENT
A foundation dedicated to science since 1912.