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The 2015 Cottrell Awards

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 15 new scholars awarded this year, three accomplished Cottrell Scholars are the first recipients of RCSA's new TREE Award (Transformational Research and Excellence in Education). The TREE Award celebrates the improvement of science education at America's universities and colleges.

2015 Cottrell Scholar Awardees

TIMOTHY J. ATHERTON
Physics, Tufts University
Predicting the Stability of Pickering Emulsion through Computer Simulations

MARY S. BAKER
Chemistry, University of Missouri-Columbia
Tailoring Bacterial Cellulose Nanogels for Diverse Chemical Tasks

MARK R. BALENCIA
Chemistry, Harvard University
Chemically-Guided Enzyme Discovery: An Approach to Identifying New Biological Reactions and a Tool for Inspiring Future Scientists

MARTIN J. BROWN
Chemistry, Boston College
Redox Switchable Iron Catalysts for the Synthesis of Biodegradable Polymers

JAMES A. CAMERON
Chemistry, University of North Carolina at Chapel Hill
Designing Photocathode Materials for Solar Fuel Photocatalysis: From the Lab to the Classroom

SUE H. CHAMPION
Chemistry, Columbia University
Development of Polymers for Next-Generation Single Fission Solar Cells

AARON E. ESPENSHEIDH
Chemistry, University of California, Irvine
Activation of the Innate Immune System with Light: A Chemical Biology Approach to Improving Vaccination

RAHUL GUPTA
Physics, University of Washington
Zinc Oxide Impurity-Bound Electrons for Optics-Based Quantum Information

CATHERINE L. GURAM
Chemistry, University of Delaware
Reprogramming Bacterial Cell Walls and Biochemistry Laboratory Curricula

JENNIFER M. HALLIDAY
Chemistry, University of Utah
Fluorescent Biomolecular Labeling to Image RNA Localization and Promote Independent Learning

M. LISA MARRING
Physics, Syracuse University
Using Single-Cell Mechanical Properties to Predict Pattern Formation and Mechanical Response in Biological Tissues

THOMAS E. HARRISON
Chemistry, Stanford University
Unraveling Quantum Fluctuations in Charge and Energy Transport

JESSE S. KNOWLES
Chemistry, University of Pittsburgh
Using Metal-Ligand Chemistry to Understand, Form, and Tailor Nanoscale Alloys

NICHOLAS W. MILLER
Chemistry, University of Washington
Quantifying the Conformational Landscape of a Thrombin Binding Protein

EMIL S. NITZEN
Physics, Colorado School of Mines
Engineering Asymmetry—Designing Materials for Thermoelectric Power Conversion

2015 TREE Awardees

CATHERINE J. JACOBSON
Cottrell Scholar 1996
Chemistry, University of Illinois, Urbana-Champaign

MATTHEW G. JENKINS
Cottrell Scholar 1996
Physics, University of Illinois, Urbana-Champaign

KAREN L. STACON
Cottrell Scholar 2006
Physics, Vanderbilt University

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