

# Sponsored Research Awards

## Apple Fire Blight (Michigan and New York)



**Herbert S. Aldwinckle**,  
Plant Pathology, Geneva  
\$231,055, U.S. Department  
of Agriculture

## The Global Call Center Research Project

**Rosemary Batt**,  
ILR Human Resource Studies  
\$33,025, Sloan Foundation

## Engineering Biological Interfaces to Enhance Prosthetic Integration

**Lawrence Bonassar**,  
Biomedical Engineering  
\$113,356, Department of Defense

## An Online Japanese Performing Arts Resource Center (JPARC)

**Karen W. Brazell**,  
Asian Studies  
\$178,901, National Endowment for the  
Humanities

## Center for Nanoscale Systems in Information Technologies

**Robert A. Buhrman**,  
Applied and Engineering Physics  
\$14,155,000, National Science Foundation

## Team Cornell: Autonomous Vehicle for Operations in Urban Environments



**Mark Campbell**,  
Mechanical and Aerospace  
Engineering  
\$1,000,000, Department  
of Defense

## Comparative Functional Genomics of Drosophila Obesity



**Andrew G. Clark**,  
Molecular Biology and Genetics  
\$1,523,695, National Institutes  
of Health

## GEPR: Exploiting Tomato Genomics Resources to Investigate Basal Plant Defenses against Pathogens

**Alan R. Collmer**,  
Plant Pathology  
\$2,500,000, National Science Foundation

## High-Sensitivity Biochemical Sensors



**Harold G. Craighead**,  
Applied and Engineering Physics  
\$248,000, Bio-Rad  
Laboratories, Inc.

## Development of a 20-Tesla Spectroscopic Imaging STM for Nanoscale Studies of Complex Electronic/Magnetic Materials



**James C. Seamus Davis**,  
Physics  
\$1,343,748, National Science  
Foundation

## Oxidant Stress in the Brain and Hypertension



**Robin L. Davisson**,  
Biomedical Sciences  
\$1,433,816, National Institutes  
of Health

## Feasibility Study of Free-Space Underwater Optical Communications

**Alexander L. Gaeta**,  
Applied and Engineering Physics  
\$165,795, Department of Defense

## Grinstein IPA with SEC



**Yaniv Grinstein**,  
Johnson Graduate School of  
Management  
\$210,162, U.S. Securities &  
Exchange Commission

## DHB: Dynamics of Deception in Computer-Mediated Environments



**Jeffrey T. Hancock**,  
Communication  
\$679,991, National Science  
Foundation

## Desert Water in the Atacama: Far-Traveled or Fossil?



**Teresa E. Jordan**,  
Earth and Atmospheric Sciences  
\$20,000, National Geographic  
Society

## Evolutionary Genomics of Anti-Malaria Genes in Mosquito

**Brian Lazzaro**,  
Entomology  
\$1,893,959, National Institutes of Health

## ACCEL: Advancing Cornell's Commitment to Excellence and Leadership



**Carolyn A. Martin**,  
Provost  
\$3,300,000, National Science  
Foundation

## GEPR: Exploring the Genetic Basis of Transgressive Variation in Rice



**Susan R. McCough**,  
Plant Breeding and Genetics  
\$5,481,557, National Science  
Foundation

## Advanced Microelectronics Manufacturing on Flexible Substrates: The Next Revolution in Electronics Manufacturing



**Christopher K. Ober**,  
Materials Science and  
Engineering  
\$637,500, Binghamton University

## In Vivo Effects of MHC1 Down Regulation in Herpes Viruses



**Nikolaus Osterrieder**,  
Microbiology and Immunology  
\$310,679, National Institutes  
of Health

## Private and Community Forestry for Natural Resources Management: Sustainable Strategies for Village- and Farmer-Based Forestry Initiatives



**Alice N. Pell**,  
Animal Science  
\$667,396, Agency for  
International Development

## Rural Obesity, New York

**Kathleen M. Rasmussen**,  
Nutritional Sciences  
\$172,829, U.S. Department of Agriculture

## Better Decision, Better Care: Theories of Medical Decision Making and Health

**Valerie Reyna**,  
Human Development  
\$49,006, National Institutes of Health

## Reevaluating the Molecular and Genetic Basis of Tomato Fruit Softening Using Cuticle-Associated Mutants

**Jocelyn Rose**,  
Plant Biology  
\$399,000, U.S. Department of Agriculture

## Nets-Prowin: Collaborative Research, a New Taxonomy for Cooperative Wireless Networking

**Anna Scaglione**,  
Electrical and Computer Engineering  
\$635,000, National Science Foundation

## Functional Analyses of Genes Involved in Meristem Organization and Leaf Initiation



**Michael J. Scanlon**,  
Plant Biology  
\$1,811,666, National Science  
Foundation

## Cyber Trust: Nexus, a New Operating System for Trusted Computing



**Emin G. Sirer**,  
Computer Science  
\$400,000, National Science  
Foundation

## Insecticide Action at the Local Anesthetic Receptor



**David M. Soderlund**,  
Entomology, Geneva  
\$1,211,501, National Institutes  
of Health

## Electronically Activated Ceiling Hanger: Demonstration of Capillary-Based Reversible Super-Adhesion

**Paul H. Steen**,  
Chemical and Biomolecular Engineering  
\$438,876, Department of Defense

## Stable Isotope Metabolism and Human Nutritional Requirements

**Patrick J. Stover**,  
Nutritional Sciences  
\$536,048, U.S. Department of Agriculture

## Development of a 4D Microscopy Facility for the Nanobiotechnology Center at Cornell: Extending Microscopy Imaging into Four Dimensions

**Abraham D. Stroock**,  
Chemical and Biomolecular Engineering  
\$340,000, National Science Foundation

## Factors Influencing the Nonconsumptive Effects of Predators on Herbivore Performance, Plant Damage, and Induced Resistance



**Jennifer S. Thaler**,  
Entomology  
\$383,000, U.S. Department of  
Agriculture

## Energy Recovery Linac (ERL) at Cornell University

**Maury Tigner**,  
Physics  
\$12,000,000, Empire State Development  
Corporation—New York State

## A Statistical Signal-Processing Framework for Secure Wireless Sensor Networks

**Lang Tong**,  
Electrical and Computer Engineering  
\$313,739, National Science Foundation

## Multiphoton Detection of Cancer



**Warren R. Zipfel**,  
Biomedical Engineering  
\$2,039,258, National  
Institutes of Health