

Special Grant Program in the Chemical Sciences

<u>Institution</u>	<u>Awardee</u>	<u>Department</u>	<u>Project</u>	<u>Award</u>
2009				
Arizona State University	Anne K. Jones	Chemistry and Biochemistry	Development of a student interest driven course "Topics in Sustainable Chemistry"	\$25,000
Clemson University	Melanie M. Cooper	Chemistry	Organic Pad: A Tablet PC-Based Interactivity Tool for Teaching Chemistry	\$25,000
Drexel University	Daniel B. King	Chemistry	Development of Hands-On, Everyday Chemistry Experiments	\$20,000
Earth & Sky, Inc.	Ryan Britton	Earth & Sky, Inc.	Profiles in Green Chemistry: Innovators toward 21st Century Sustainability	\$45,000
EdVenture Children's Museum	Susan E. Bonk	Education	Chemistry From A to Z (Aluminum to Zinc) – Exploring the Chemical Sciences at EdVenture	\$45,000
Iowa State University	Nicola L. Pohl	Chemistry	Connecting Chemistry to Biology and the Everyday in the Modern Undergraduate Chemistry Lab	\$20,000
Iowa State University	Connie P. Hargrave	Curriculum and Instruction, Science Bound	Fostering Interest in the Chemical Sciences via Peer-Led Outreach: Chemistry Ambassadors	\$25,000
Kennesaw State University	Marina C. Koether	Chemistry and Biochemistry	Pharmaceutical Chemistry Track: A Pathway for the Pre-Pharmacy Students	\$5,745
Mount Holyoke College	Maisie J. Shaw	Chemistry	Passport to Chemistry Adventure for Elementary School Students and their Parents	\$25,980
Museum of Science and Industry	Rachel Hellenga	Project Director, Science Storms	Create a Chemical Reaction	\$125,000
North Dakota State College of Science	William R. Shay	Mathematics and Science	A Multi-faceted Laboratory Approach to Increase Student Achievement and Retention	\$5,000
Pratt Institute	Eleonora Del Federico	Math and Science	Expanding Pratt's Mobile Laboratory for Studying Artists' Materials and Artifacts: Capturing Students' Interest in Chemistry at an Art and Design College	\$99,575
Princeton University	William F. Brinkman	Physics	Study of the capture of CO ₂ directly from the atmosphere and from flue gas that will be done under the sponsorship of the Panel on Public Affairs of the American Physical Society.	\$40,000
Texas A&M University	Bryan O. Boulanger	Civil Engineering	Promoting chemistry through secondary school education programs designed to raise awareness of community potable water challenges	\$30,000
The Ohio State University	Glenda La Rue	College of Engineering	CheMe and YOU @ OSU summer program	\$50,000
The University of Wisconsin-Madison	John W. Moore	Chemistry	Making Chemistry and Nanoscience Larger Than Life: Building a Carbon Playground	\$30,000
University of California, Irvine	Pierre F. Baldi	Computer Science	Reaction Explorer for Chemical Education	\$31,000

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University of California, Santa Barbara	Craig J. Hawker	Materials	Materials Research Facilities Network (MRFN): A National Research and Education Resource for the STEM Disciplines	\$25,000
University of Illinois at Urbana-Champaign	Alexander Scheeline	Chemistry	Retargetable Modules for Instrumental Analysis Across Cultures and Learning Styles	\$4,300
University of Massachusetts, Amherst	Craig Martin	Chemistry	Interactive 3D Molecules in Architectural Spaces	\$45,000
Utah Science Center Foundation	Joseph Andrade		Water, Light and Chemistry: Wet and Dry Stuff	\$30,000

2008

American Chemical Society	Mary Kirchhoff	Membership and Scientific Advancement	American Chemical Society Scholarship Program for Underrepresented Minority Undergraduate Students in the Chemical Sciences	\$140,000
American Institute of Physics	Alicia M. Torres	Media and Government Relations	Discoveries and Breakthroughs Inside Science (DBIS): Bringing Chemistry Science and Engineering Research to Local TV News	\$60,000
Colorado State University	Bruce A. Parkinson	Chemistry	A Distributed Combinatorial Search for Water Splitting Photocatalysts	\$45,000
Education Foundation of Harris County	Douglas H. Kleiner	President / CEO	Science Fiction: Teaching Chemistry with Children's Literature	\$50,350
Florida Institute of Technology	Kurt J. Winkelmann	Chemistry	Nanotechnology for Freshmen: Learning Chemistry through Nanomaterial Synthesis and Applications	\$33,000
Georgia College & State University	Rosalie A. Richards	Science Education Center	Chemistry Rocks! Summer Institute for High School Teachers	\$30,627
John Jay College of Criminal Justice	Gloria Proni	Sciences	Chemistry is All Around Us	\$31,180
Museum of Science, Boston	MJ Morse	Current Science & Technology	Connecting the Public to Chemistry	\$200,000
Nobel Web Education Fund	Adam Smith	Editorial	Nobel Prize Narratives in Organic Chemistry	\$45,000
Polytechnic University	Jin K. Montclare	Chemical and Biological Sciences	Mentored Chem-Bio Technology Lab: From Virtual Small Molecules to Biomolecules	\$50,000
Smith College	Kate Queeney	Chemistry	Achieving Excellence in Math, Engineering and Science, a focus on chemistry	\$36,000
State University of New York College at Oneonta	Jacqueline S. Bennett	Chemistry & Biochemistry	Integrating Green Photochemistry into the Undergraduate Chemistry Curriculum	\$29,928
Texas A&M University	Victor M. Ugaz	Chemical Engineering	DNA to Go: Do-it-Yourself PCR Thermocyclers	\$44,000

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The Johns Hopkins University	Linda E. Brody	Center for Talented Youth (CTY)	Focusing on the Chemical Sciences on Cogito.org, a Web site and Online Community for Gifted Pre-college Math and Science Students	\$40,000
The Metropolitan Museum of Art	Marco Leona	Scientific Research	Advanced Raman Spectroscopy Techniques in Art and Archaeology: An Undergraduate Chemistry Research Project	\$40,000
The New York Academy of Sciences	Karin E. Pavese	Physical Sciences & Engineering	Soft Materials Discussion Group at The New York Academy of Sciences	\$17,000
The Science Television Workshop	Jo Ann Caplin		The Science and Art Project: The Hours on Forensic Chemistry, Chemistry of Paints, and Tracking Down Frauds and Fakes	\$48,175
University at Buffalo	Valerie A. Frerichs	Chemistry	Dissemination of Research-Based Introductory Chemistry Laboratory Curricula	\$40,000
University of California, Berkeley	John Arnold	Chemistry	Materials Chemistry in the Undergraduate Laboratory: Synthesis, Characterization and Properties	\$50,000
University of Illinois	Doug Mills	Chemistry	A Multimedia Studio for the Production of Web-based Course Materials for the Chemical and Biological Sciences at UIUC	\$40,000
University of Notre Dame	Olaf Wiest	Chemistry and Biochemistry	Chemistry in a Digital Visualization Theatre	\$20,000
University of Richmond	Jeffrey I. Seeman	Chemistry	Science Fair Projects in Chemistry: A Visual Step-by-Step Educational and Motivational Tool	\$40,000
University of Texas at El Paso	Keith H. Pannell	Chemistry	Science Studio	\$15,000
University of Utah	Jack Simons	Chemistry	Creating a Structure for U.S. Summer Schools on Theoretical Chemistry	\$60,000
Wake Forest University	Roy R. Hantgan	Biochemistry	Molecules to Medicines. Enable promising students, Dreyfus Discoverers, to complete internships in the pharmaceutical and biotechnology industries.	\$15,000
West Texas A&M University	Mark J. Olsen	Mathematics, Chemistry, and Physics	Novel Chemistry Displays and Assessment for the Panhandle Plains Historical Museum	\$33,000

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2007				
Brigham Young University	Adam T. Woolley	Chemistry and Biochemistry	Microchip Separations in Undergraduate Chemistry Laboratories	\$40,000
California Science Center	Sue L. Neuen	Amgen Center for Science Learning	Orange County Middle School Physical Science Symposium & Professional Development Program	\$17,652
Chemical Heritage Foundation	Stephen Lyons	Moreno/Lyons Productions, LLC	Today's Chemical Explorers	\$49,700
Columbia College Chicago	Zafra Lerman	Science Education	"Workshop to develop a Middle East K-16 curriculum through environmental education"	\$25,000
Columbia University	Darcy B. Kelley	Biological Sciences	Developing Chemistry Modules for "Frontiers of Science" Course at Columbia University	\$45,000
Howard University	Charles M. Hosten	Chemistry	Science and Public Policy for an Undergraduate Curriculum	\$45,000
Iona College	Sunghee Lee	Chemistry	Dynamic Video Microscopy in Undergraduate Chemistry Education	\$25,000
Molecular Frontiers Foundation	Richard N. Zare	Department of Chemistry	Molecular Frontiers Best Question Competition	\$25,000
Mount Holyoke College	Sean M. Decatur	Chemistry	Assessing and Strengthening the Pipeline of Underrepresented Minorities into Successful Undergraduate Science Degrees	\$36,000
Museum of Science, Boston	M.J. Morse	Current Science and Technology Center	Connecting the Public to Chemistry	\$20,000
Northeastern University	Patricia A. Mabrouk	Chemistry & Chemical Biology	Web-GURU: Web-Based Guide to Research for Undergraduates	\$47,754
Oklahoma School of Science and Mathematics	A.K.Fazlur Rahman	Chemistry	Exploring Alternative Energy Resources : A Research Project for High School Students	\$5,900
Oregon Museum of Science and Industry	Marilyn Johnson	Education	Chemistry in the K-8 Classroom	\$45,000
Portland State University	Scott M. Reed	Chemistry	Chem Map: Mapping the Chemistry of Everyday Materials	\$30,000
Rensselaer Polytechnic Institute	Sara L. McIntosh	Chemistry and Chemical Biology	"Whodunit?" The Science of Crime Scenes"	\$11,616
Sciencenter	Rae E.M. Ostman	Education	Science Museum Chemistry Programs for School and Family Audiences	\$30,943
Simmons College	Leonard J. Soltzberg	Chemistry	Extending the Research Experience into Early Undergraduate Chemistry Laboratories	\$33,000
Stanford University	Michael D. Fayer	Chemistry	Retaining and Revitalizing Chemistry Teachers Through Summer Research Fellowships	\$25,000

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The Discovery Museums	Denise LeBlanc	Science Discovery Museum	Community Chemistry: Engaging K-8 Students with Hands-on chemistry to Find the Extraordinary in the Everyday from Molecules to the Professions	\$17,614
The New York Academy of Sciences	Karin E. Pavese	Programs	Green Science & Environmental Systems Discussion Group at The New York Academy of Sciences	\$23,900
The Pennsylvania State University	Andrew L. Zydney	Chemical Engineering	Hands-On Product Design Experience in Chemical Engineering at The Pennsylvania State University	\$39,000
The Rockefeller University	Bonnie Kaiser	Precollege Science Education	Synergy through Inquiry: A Pilot Project of The Rockefeller University Science Outreach Program to Test and Track Inquiry-Based Approaches to Chemistry Learning	\$75,000
The University of North Carolina	John M. Papanikolas	Chemistry	Virtual Substance: A Tool for Teaching Science Inquiry from Middle School to Physical Chemistry	\$30,000
The University of North Carolina	Todd R. Boyette	Morehead Planetarium and Science Center	Science 360: Today's Chemistry	\$50,000
University of California, Berkeley	Jay D. Keasling	Chemical Engineering	Addressable cell-cell communication in Escherichia coli	\$49,000
University of Pennsylvania	Larry Gladney	Physics	A seed grant for the design and implementation of Concept-Focused Short Courses for continuing content preparation of secondary school chemistry teachers	\$58,800
Western Washington University	David L. Patrick	Chemistry	Beyond the Individual Molecule Paradigm: Introducing Nanomaterials Across the Curriculum	\$28,000
WGBH	Jessica Cashdan	Foundation Development	The Percy Julian Collection: Multi-Media Resources for Teachers and Students	\$47,112
Whitman College	Frank M. Dunnivant	Chemistry	An Analytical Instrumentation Center for the Natural Sciences – Purchase of an Inductively Coupled Plasma Mass-Spectrometer System	\$50,000

2006

Colorado State University	Anthony K. Rappe	Chemistry	Many Minds Chemistry Program	\$38,000
Exploratorium	Charles C. Carlson	Life Sciences	Biochemical Connections: New Exhibits for the Exploratorium Traits of Life Collection	\$25,000
Georgia Institute of Technology	Pete J. Ludovice	Chemical & Biomolecular Engineering	Scaffolded Molecular Modeling Educational Modules	\$32,700
Indiana State University	Stephen F. Wolf	Chemistry	Incorporation of X-ray Fluorescence Spectrometry into an Interdisciplinary Undergraduate Study of the Environment	\$29,000
Laboratories for Learning	Jeffrey M. Stern		Forensic Chemistry: Solving Crimes and Exploring Careers in the Chemical Sciences	\$5,000

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Maryland Science Center	Tonya M. Matthews	Exhibits	Innovating chemistry education and expanding the pipeline with open-access, immersive laboratory experiences at the Maryland Science Center	\$35,000
New York Hall of Science	Martin Weiss	Science	Chemistry and the Search for Life Beyond Earth—a Hands-on Discovery Lab (working title)	\$200,000
North Central College	Paul F. Brandt	Chemistry	Creative Workshops for K-12 Science Educators	\$15,622
Oregon Museum of Science and Industry	Marilyn Johnson	Education	Chemistry in the K-8 Classroom	\$20,000
Portland State University	Virginia E. Fox	Saturday Academy	Nanoscience and Chemistry Educational Outreach to Students of the Pacific Northwest	\$18,000
Purdue University	William G. Bayley	Chemistry	Science Express-Bring Research Grade Instrumentation to High Schools in Indiana	\$55,500
Science Buddies	Courtney Corda	Kenneth Lafferty Hess Family Charitable Foundation	Development and Operation of a "Chemistry Interest Area" for Science Buddies' "Topic Selection Wizard"	\$45,000
Skidmore College	Raymond J. Giguere	Chemistry	Molecules That Matter: a unique, nationally touring museum exhibition focusing on the scientific and cultural significance of organic molecules in the twentieth century.	\$55,000
The University of Chicago	Laurie J. Butler	Chemistry	The Pre- and Post-Freshman Summers: Strategic Mentoring for Careers in the Chemical Sciences	\$70,000
University of California, Berkeley	John M. Prausnitz	Chemical Engineering	Education in Humanities and Social Relevance for Chemical Engineering Students: The Bronowski Project	\$29,672
University of California, Santa Barbara	Daniel E. Morse	Molecular, Cellular and Developmental Biology	Environmental Chemical Signals Bring New Life to Coral Reefs: Development of New Interdisciplinary Teaching and Public Education	\$19,982
University of California, Santa Barbara	Dale E. Seborg	Chemical Engineering	Modernizing the Instructional Chemical Engineering Laboratory at the University of California, Santa Barbara	\$48,415
University of Colorado	Sandra L. Laursen	Ethnography & Evaluation Research (E&ER)	What Do We Know about What Works? Review of US Foundations, Programs in K-12 Chemistry Education	\$63,388
University of Delaware	Joseph M. Fox	Chemistry and Biochemistry	The Path to Synthesis, An Animated Movie of the Enantioselective Total Synthesis of (-)-Strychnine.	\$39,940
University of Massachusetts Amherst	Louis A. Roberts	Biochemistry and Molecular Biology	High-Throughput Instrumentation for a Novel Multidisciplinary Laboratory Course for Biochemistry, Chemistry, and Chemical Engineering Students	\$40,000
University of Massachusetts Amherst	Julian F. Tyson	Chemistry	Embedding Research Experiences Early in the Undergraduate Chemistry Curriculum	\$35,000

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University of Puerto Rico-Arecibo Campus	Ana M. García	Physics/Chemistry	Project CHEMPRO: Incorporating Hands-On Experiences and Simulations in Chemical Processes to High School Students and Science Teachers	\$32,300
Young Science Achievers, Inc.	Jorge L. Valdes	Board of Directors	The Young Science Achievers Chemistry Program	\$10,000
2005				
Alliance for Education	Kathryn Kelsey	Exhibitions	Promoting K-12 Student Achievement in Chemistry	\$22,120
American Chemical Society	Rudy M. Baum	Chemical & Engineering News	A summer science writing internship at Chemical & Engineering News	\$6,000
American Chemical Society	Denise L. Creech	Membership Division	American Chemical Society Scholars Program, a scholarship, mentoring, and summer research program to encourage minority undergraduate students into degrees and careers in chemistry.	\$100,000
American Chemical Society	John M. Malin	International Activities	Workshop on Air and Water Quality in the Middle East - A Bridge to Peace and International Development	\$15,000
American Psychological Association	Rena F. Subotnik	Education Directorate	THE CATALYST PROGRAM: Delineating the Path to Eminence in Chemical Science for Gifted Adolescents	\$294,659
Bronx High School of Science	Fanny K. Ennever	Physical Science	Continuation of "Developing an inquiry-based laboratory curriculum for high-school chemistry courses	\$27,500
Columbia University	George W. Flynn	Chemistry	Small Wonders: A Media Project on Nanoscale Science and Technology	\$75,000
COSI Toledo	Samuel B. Dean	Exhibitions	Science Cafe	\$28,200
Elementary Institute of Science (EIS)	Amelia Cacho	Science	Chemical Science Enrichment for Children	\$25,378
Emory University	Stefan Lutz	Chemistry	Advanced undergraduate research laboratory - novel biocatalysts from combinatorial libraries of metagenomic DNA	\$25,000
Filmmakers Collaborative	Stephen E. Lyons		To support Phase 1 of The Mystery of Matter, a primetime PBS television series on the history of chemistry.	\$58,250
Grand Valley State University	Deborah G. Herrington	Chemistry	Target Inquiry - Bringing Inquiry to the Classroom Through Research, Inquiry Materials Adaptation, and Implementation: Professional Development for High School Chemistry Teachers	\$116,750
Great Lakes Science Center	Jennifer C. Radwan	Public Programs	Mission Chemistry - Stimulating Interest and Increasing Understanding of Chemical Sciences at the Great Lakes Science Center.	\$19,650
Hamilton College	Karen S. Brewer	Chemistry	Materials Chemistry Project Laboratories for Descriptive Inorganic Chemistry	\$36,500

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Harvey Mudd College	Hal Van Ryswyk	Chemistry	The Chemistry of Lead-Contamination from Vehicle Emissions: A Project in Science and Public Safety	\$20,000
Oregon State University	Christine Pastorek	Chemistry	Introducing fiber optic coupled miniature CCD spectrometers in teaching chemistry	\$28,349
Rockefeller University	Paul Nurse	President	Lederberg Chair	\$100,000
Stonehill College	Louis Liotta	Chemistry	Project SUCCESS (Stonehill Undergraduate Collaboration with Community Educators and Secondary Students)	\$28,959
The Discovery Museums	Denise LeBlanc	Education	Super Sleuths: Taking the Mystery Out of Chemistry	\$16,296
The Pennsylvania State University	Paul C. Painter	Materials Science and Engineering	Development of a "Natural History of Polymers" CD	\$18,000
University of Arkansas at Pine Bluff	Peter A. Iyere	Chemistry and Physics	Weekend/Summer Chemistry Reinforcement Program for Minority High School Students	\$8,701
University of California, Berkeley	Robert G. Bergman	Chemistry	Chemistry in the Classroom: A Collaboration between UC Berkeley Chemistry Department and Community Resources for Science	\$20,000
University of California, Davis	Mike Stieff	School of Education	Incorporating Simulations and Modeling in General Chemistry	\$34,321
University of California, San Diego	Sherry L. Seethaler	Division of Physical Sciences	Molecules for the Media (Press Workshops and Website)	\$50,000
University of California, Santa Barbara	Petra A. M. Van Koppen	Chemistry and Biochemistry	Outreach Program to Improve Educational Opportunities for K-12 students: A Hands-On Inquiry-Based Approach to Teaching Physical Science in the Fifth Grade	\$24,661
University of California, Santa Barbara	Walter Kohn	Physics	<i>The Power of the Sun</i>	\$78,060
University of Connecticut	Arthur W. Dimock	Chemistry	Summer Chemistry Blast!	\$19,400
University of Notre Dame	Douglas A. Miller	Chemistry & Biochemistry	Application of XRF spectrophotometry in a chemistry based community service course	\$20,000
University of South Dakota	Mary T. Berry	Chemistry	Bridging Native American Culture and Chemistry: Undergraduate Research in Natural Products Isolation and Derivatization.	\$25,000
Virginia Polytechnic Institute and State University	Timothy E. Long	Chemistry	Mentoring Academic Growth in our Communities (MAGIC): Teaming Research Universities with Regional Science Museums	\$48,000