Quest is a yearly campus-wide event during which faculty, staff, and students at SUNY Oswego present their research and their creative projects. This provides an opportunity for faculty, students, and staff to share their scholarly and creative efforts and communicate across disciplines. Each year approximately 170 talks, demonstrations, and other activities are presented at Quest. Further information about the event is at www.oswego.edu/quest. If you have any questions contact Jack Gelfand, Chair of Quest, gelfand@oswego.edu.

Quest will be held on Wednesday, April 23, 2008 from 9:00 A.M. to 9:00 P.M. There are no classes on this day so that faculty and students can attend. Any member of the campus community may submit a presentation for inclusion in the Quest program. You can do this in the form of talks, posters, panel discussions, performances, demonstrations or competitions. The form for submitting a presentation at Quest can be found on the web page. The submission dates are from January 21, 2008 to February 22, 2008.

This year all of the activities at Quest will be held in the new Campus Center. The new Campus Center has many different spaces and environments which will accommodate any type of scholarly activity. Please explore possible spaces for presentations in the Campus Center and you may request a particular location on the submission form.

You can find the Quest program for previous years by clicking on the links on the web page. Titles and abstracts from 2006 and 2007 can be found there.

We encourage submissions of any type of scholarly or creative activities. Some types of presentations are discussed below:

**Talks**

A standard talk is a fifteen-minute presentation in front of an audience. Talks of different lengths are permissible.

(Continued on page 18)
2007-2008
Curriculum Innovation Grants

PURPOSE AND SCOPE OF PROGRAM:

This program supports the creation of new courses needed to keep our disciplinary, interdisciplinary and general education programs up-to-date in content, quality, and delivery. Once again this year preference will be given to proposals that address the college’s commitment to expanding student knowledge and skills related to international and intercultural issues. The focus of such proposals should be on expanding awareness of growing global interconnectedness and developing skills and expertise for meeting challenges directly linked to this trend. For example, courses might be designed to include a study abroad component or to prepare students for study abroad in their field. Or, courses might provide comparative perspectives to help students develop knowledge and skills for cultural understanding. Courses might expand students’ understanding of another culture.

-These grants will support course creation for current programs and for new programs that have been approved through the program approval process.
-These grants may support pervasive changes in pedagogical approaches that require significantly greater faculty effort than would be considered a normal part of the responsibilities of a faculty member in his/her own areas of expertise, such as when a course is being designed for on-line teaching for the first time; when a faculty member must seek external partners for service learning, internships, field trips, etc; or when a department requests that a faculty member create a course outside one’s current area of expertise.

(Continued on page 19)
A Word from the Director —

This month we will consider a commonly overlooked aspect of funding strategy. Most faculty are primarily concerned with the presentation of their intellectual interests or activities. A substantial effort is spent on proper literature citations, research plans and budget justifications. These are all very important, however, they are concerned with the details of the proposed project from your point of view. Most proposal writers neglect to take into consideration the goals of the agencies or foundations to which they are applying. It is very important to keep in mind that the potential donor has an agenda. In addition to convincing the reviewers that your proposal has some merit, the program manager of the agency or foundation must have a clear view of what your project is about and how it fits into his or her program goals. It is helpful if you make an effort to show how your proposed project fits into the funding program.

Two things to keep in mind when considering this issue are the internal management organization and program organization in an agency or foundation. Typically they have an overall program of funding to support. In the larger agencies these programs are divided into subsections, each of which is headed by a program manager. A program manager presents a plan to the upper management each year to fund projects, which achieve a particular set of sub-goals within this overall plan. A sub-goal might be to investigate the cause of a particular illness or a chemical mechanism in combustion. It could also be to support a particular social or educational cause. The program manager usually aims to fulfill this by funding a number of grants addressing a specific target or topic. For example they might be,

- Fifteen minority scholarship programs in the northeast
- Two collaborations with foreign universities
- Three plays on historical topics
- Three different methods to determine the cosmological distance scale.

Another very important factor is that funders typically organize their programs to have a limited period, usually 3 - 5 years. Program managers must report progress each year in terms of their specific targets.

These organizational characteristics suggest an approach to your funding efforts. First, the obvious approaches to a topic tend to be funded early in a program. It is very difficult to receive support for a standard approach after the second year, of a program. Second, it is much easier to get funded in the first year of a new program. Agencies sometimes do not receive enough proposals to cover their goals in the first year. It is a big mistake to say that you will wait and submit a proposal in the second year when you get some higher quality preliminary data. It is much better to submit a well-written proposal with a smaller amount of data in the first year rather than wait.

What can you do to educate yourself about the program goals of an agency? Carefully read the web page or other announcements in order to find out what they are trying to accomplish. Don't hesitate to call the program manager and discuss your proposal with them. They are all very helpful and may give you some hints on how to pitch your proposal in the optimum direction. Remember that their success is judged on the number of good proposals that they receive so they are just as interested in your success as you are.

ORSP Professional Development Workshops —

The following workshops will be held in Room 123 in Penfield Library.

Understanding Budgets
Tuesday, February 19 from 12:45 to 2:00

How to do Research With Undergraduates
Tuesday, March 11 from 12:45 to 2:00

What Are Your Objectives, and How to Write Them Effectively
Tuesday, April 1 from 12:45 to 2:00

White Papers & Elevator Talks
Tuesday, May 6 from 12:45 to 2:00

We understand it’s not always possible for you to have time to attend these workshops. In order to keep everyone informed we will post the power point presentation on the ORSP website.
An Eye on Funding—Current Funding Opportunities

ARTS

Theatre Communications Group, New Generations -- Future Collaborations - TCG/ ITI International Fellowships [93931]
Deadline: 03/17/08
Scope: The sponsor offers travel grants of $3,000 that will be awarded in the fall/winter and spring/summer seasons to theatres and theatre professionals for unrestricted international travel, enabling them to share ideas and techniques and/or collaborate with their colleagues around the world.
Objectives: The Sponsor offers travel grants to theatre professionals who wish to initiate, continue and/or deepen relationship(s) with theatre professionals and/or theatre companies outside of the U.S.

Graham (Elizabeth Firestone) Foundation [48257]
Deadline: 03/15/08
Scope: Support is provided to foster awareness and appreciation of contemporary visual art, particularly through catalogues and other publications that document art produced by emerging or under-recognized artists.
Funding: Grant amounts typically range from $5,000 to $20,000. Requests for projects that take place within one year of the request will be given priority consideration.
Objectives: The sponsor is interested in projects that attempt to bring together artists and the community, support artists from marginalized populations, and provide exposure to contemporary art where it may not otherwise be seen. Funding is available for: exhibition catalogues and brochures, publications related to the grantees organization and its programs or collections, exhibitions and installations (on- or off-site), visiting artist programs, and film projects in their final completion phase.

EDUCATION

Sun Microsystems, Inc., Academic Excellence Grant Program [61268]
Deadline: 05/05/08
Scope: The sponsor grants equipment to eligible organizations who have developed creative projects that address the sponsor’s investment priorities and create partnerships for success. The primary investment priorities are higher education and kindergarten through twelve education.
Funding: Grants are in the form of hardware donations only.
Objectives: The sponsor grants equipment to eligible organizations who have developed creative projects that address the sponsor’s investment priorities and create partnerships for success. The primary investment priorities are higher education and kindergarten through twelve education.

NYFA, Career Advancement Mini-Grants--Special Opportunity Stipends (SOS) [11733]
Deadline: 05/28/08
Scope: Small cash grants are provided to help individual artists of all disciplines take advantage of unique opportunities that will significantly benefit their work or career development. Literary, media, visual, music and performing artists may request support for specific, forthcoming opportunities that are distinct from work in progress.
Funding: Awards range from $100 to $600.
Eligibility: Eligible applicants must be eighteen years of age or older, and show proof of full-time New York State residency in one of the participating counties for one year prior to the application date. Graduate, undergraduate and high school students enrolled in a degree program at the time of application are not eligible.
Objectives: Small cash grants are provided to help individual artists of all disciplines take advantage of unique opportunities that will significantly benefit their work or career development. Literary, media, visual, music and performing artists may request support ranging from $100 to $600 for specific, forthcoming opportunities that are distinct from work in progress.

National Endowment for Financial Education [71994]
Deadline: 06/03/08
Scope: The sponsor is dedicated to the mission of helping Americans acquire the information and gain the skills necessary to take control of their financial lives. The grants program seeks innovative research and research-based development projects that can make a profound contribution to the field of financial literacy.
Funding: Recent grant awards for research projects have ranged from $100,000 to $208,000. Grant durations generally range from twelve to thirty-six months.
Objectives: The sponsor seeks innovative research and research-based development projects that can make a profound contribution to the field of financial literacy. Inquiries from disciplines in fields as diverse as behavior, economics, neuroscience, sociology, psychology, marketing, finance, education, change theory, decision sciences, and others are encouraged. Project outcomes should be actionable in the field of financial literacy, directly relevant to the financial well-being of the public and have the ability to be applied broadly. The sponsor seeks projects whose outcomes can improve the public’s ability to achieve personal and household financial well-being. Of particular interest are pro-active research projects initiated from one of a broad spectrum of scholarly disciplines whose findings may cultivate critical thinking in the financial literacy community. Also of interest are development projects that actuate research rec-
ommendations. Project outcomes must be capable of achieving traction and measurable impact with audiences such as financial education intermediaries, researchers, practitioners, decision makers, and others who can achieve effective outreach to a target population with an unmet financial literacy need or to the general public.

HUMANITIES

American Society of Forensic Odontology, Research Grant [71509]
Deadline: 07/01/08
Scope: The sponsor provides funds to support research in Forensic Dentistry.

Early American Industries Association [60792]
Deadline: 03/15/08
Scope: The sponsor provides support for research projects for the study of early American industries in homes, shops, farms or at sea.
Funding: The maximum grant is $2,000.

NHC, Summer Institutes in Literary Studies [71706]
Deadline: 03/07/08
Scope: The sponsor will offer two seminars on literary understanding. Open to scholars who have received a Ph.D. within the last ten years and who teach in departments of literature or other relevant disciplines, the seminars will concentrate on the detailed operations of literary texts.
Funding: Participation in an institute carries a stipend of $1,500. The sponsor will cover the cost of travel, lodging, meals and texts.
Objectives: Each institute will combine extensive seminar discussion with small group work and individual consultation with the seminar leader. In 2008, topics of study include Chaucer: Past, Present and Future; and Forms of Life in Emily Dickinson's Poetry.

Kaplan (J.M.) Fund, Furthermore Grants in Publishing [79270]
Deadline: 03/15/08, 09/15/08
Scope: Support is provided for writing, research, editing, design, indexing, photography, illustration, and printing and binding.
Funding: Grants range from $500 to roughly $15,000.
Eligibility: Book proposals to which a university press or trade publisher is already committed and for which there is a feasible distribution plan are usually preferred. In geographical reach the sponsor is drawn— but in no way limited— to New York City and to New York State and its Hudson Valley. Applicants must be 501(c)3 organizations. They have included civic and academic institutions, museums, independent and university presses, and professional societies. Trade publishers and public agencies may apply for Furthermore grants in partnership with an eligible nonprofit project sponsor.
Objectives: This program is concerned with nonfiction book publishing about the city; natural and historic resources; art, architecture, and design; cultural history; and civil liberties and other public issues of the day.

NEH, Institutes for Advanced Topics in the Digital Humanities [95366]
Deadline: 04/09/08
Scope: As part of the Endowment-wide Digital Humanities Initiative, these grants support national or regional (multi-state) research and training programs on approaches in humanities computing. Through these programs, the NEH seeks to increase the number of humanities scholars using digital technology in their research and broadly disseminate knowledge about advanced technology applications relevant to the humanities. The projects may be a single opportunity or offered multiple times to different audiences, although the duration of a program should allow for full and thorough treatment of the topic.
Funding: Awards normally range from one to three years and from $50,000 to a maximum of $250,000. Successful applicants will be awarded a grant in outright funds, federal matching funds, or a combination of the two, depending on the applicant's preference and the availability of NEH funds. Matching funds are released when a grantee secures gift funds from eligible third parties.
Objectives: The goals of the Institutes for Advanced Topics in the Digital Humanities program are the following: bring together humanities scholars and digital technology specialists from different disciplines to share ideas and methods that advance humanities research through the use of digital technologies; reflect on, interpret, and analyze new digital media, multimedia, and text-based computing technologies and integrate these into humanities research; prepare current and future generations of humanities scholars to design, develop, and use cyber-based tools and environments for research; devise new and creative uses for technology that offer valuable models that can be applied specifically to research in the humanities.

NHPRC, Electronic Records Projects [83379]
Deadline: 04/01/08, 06/02/08
Scope: The Commission seeks ways to ensure that records created today will be usable with tomorrow's technology. As society moves record-keeping from paper to electronic records, it is essential that electronic records retain their authenticity and are preserved. The NHPRC supports efforts by archivists and other records managers to meet the challenges of a proliferation of electronic records.
Funding: Awards normally are for one, two, or three years and may range from $20,000 to $400,000. The Commission provides no more than 50 percent of project costs for Electronic Records Projects.
Objectives: The NHPRC especially welcomes projects that build institutional capacity, promote professional development and education in the field, and help create and support consortia.
THIRTEENTH ANNUAL SMALL GRANTS PROGRAM

RESEARCH, EDUCATION AND PUBLIC SERVICE PROJECTS

Rice Creek Associates (RCA) invites proposals from scholars, scientists, educators and students for the 2008 Rice Creek Associates Small Grants Program. RCA’s small grants program is intended to support and encourage research, education and public service projects at Rice Creek Field Station (RCFS), particularly in areas of field biology and the natural sciences.

RCFS is a unit of SUNY-Oswego dedicated to the support of academic instruction, research and public service, especially in the natural sciences and environmental education. The mission of Rice Creek Associates is to support the educational, research and service aims of Rice Creek Field Station.

Located about 1 1/2 miles south of Lake Ontario and the main campus, RCFS properties include approximately 300 acres of varied habitats with open fields, mature forests, and land in various stages of succession. The property is bisected by Rice Creek and 26 acre Rice Pond. Facilities include labs, a classroom, a small library, collection storage, and small boats. Lodging is available on the main campus.

Proposals oriented toward basic and applied research in field biology, the natural sciences, education, and/or service projects will be considered. Past projects have included such things as small mammal surveys, non-invasive subsurface geological exploration techniques, identification and flight season determination of butterfly populations, turtle population surveys, breeding bird surveys, and collection renovation.

ELIGIBILITY:

Applicants need not be affiliated with RCFS or SUNY Oswego. However, the work must be done at Rice Creek Field Station.

FUNDING:
Most awards will be between $500 and $1,000. Additional funds in support of living expenses for visiting scholars may be available at the discretion of the RCA Board of Directors. Grant funds may be used for stipends, travel, supplies, equipment, publication costs or secretarial support. No indirect costs will be considered. RCA encourages grant applicants to seek matching funds from appropriate sources.

SUBMISSION OF PROPOSALS:

An original and 5 copies of each proposal should be submitted by mail to: Rice Creek Associates Small Grant Review Committee Rice Creek Field Station SUNY-Oswego Oswego, N.Y. 13126

Proposals are due by March 15, 2008. Awards will be announced on or about April 15, 2008.

CONTENTS OF PROPOSALS:

Proposals should consist of a cover page, text, and vitae of the Principal Investigators. The text should include the following sections:

1. **Background and Need:** Indicate the rationale for the project. Include a review of literature, if relevant, to show your clear understanding of the subject matter and grasp of related research.

2. **Objectives:** Clearly and succinctly state what will be accomplished.

3. **Method:** Indicate the steps and techniques that will be followed, the experimental research design or project management plans and the expected data sources.

4. **Schedule:** Indicate the date work will begin and the schedule for its completion.

5. **Personnel:** Describe the role of study participants.

6. **Significance:** Detail how the project will further the educational and scientific mission of Rice Creek Field Station.

7. **Literature Cited in Proposal:**

8. **Itemized Budget:** The budget should include:

   A. Amount requested from RCA.

   B. Matching funds applied (if applicable). Proposals may be of any length necessary to describe the proposed project but may not exceed 15 double spaced pages, excluding vitae.

PROPOSAL REVIEW:

All proposals will be reviewed by the Small Grant Review Committee of Rice Creek Associates. The Board of Directors of Rice Creek Associates will make the final determination of awards. The Small Grant Review Committee &/or the Board of Directors of RCA may solicit peer review. Applicants are encouraged to suggest reviewers.

For more information about this program, contact:

Dr. Peter A. Rosenbaum
(315) 312-2775
EMAIL par@oswego.edu
FAX (315) 312-3059

OR

Dr. Andrew P. Nelson
(315) 312-7961
EMAIL anelson@oswego.edu
FAX (315) 312-7347
An Eye on Funding (Continued from page 4)

and other cooperative programs. Eligible Activities Include: Program Evaluation and Planning Projects; Program Start-Up Projects; Program Expansion Projects; and Cooperative Networks and Service Providers Projects.

INTERDISCIPLINARY

DOA, Strengthening Awards—Standard Research Project Awards (NRICGP) 44627

Deadline: 03/05/08, 06/05/08

Scope: Support is provided to faculty with appointments at small and mid-sized degree-granting institutions to conduct research pertaining to the sponsor's areas of interest.

Objectives: The sponsor's areas of interest include: Plant Biosecurity; Managed Ecosystems; Soil Processes; Water and Watersheds; Global and Climate Change; Air Quality; Bioactive Food Components for Optimal Health; Human Nutrition and Obesity; Food Safety and Epidemiology; Animal Reproduction; Animal Growth and Nutrient Utilization; Animal Genome; Animal Protection and Biosecurity; Microbial Genomics; Arthropod and Nematode Biology and Management; Microbial Biology; Biology of Weedy and Invasive Species in Agroecosystems; Plant Genome; Plant Biology; Agricultural Markets and Trade; Rural Development; Agricultural Prosperity for Small and Medium-Sized Farms; Improving Food Quality and Value; Biobased Products and Bioenergy Production Research; and Nanoscale Science and Engineering for Agriculture and Food Systems.

NSF, International Research and Education: Planning Visits and Workshops [79941]

Deadline: 02/20/08, 05/20/08

Scope: The sponsor supports the early phases of developing and coordinating a research and education activity with a foreign partner(s).

Funding: Support for workshops will be for a maximum of two years and a maximum total budget of $60,000 over the duration of the award. Support for planning visits will be for a maximum of two years and a maximum total budget of $20,000 over the duration of the award. Support is primarily for travel and subsistence expenses for U.S. participants. An administrative allowance, limited to ten percent of direct costs, is allowed for International Planning Visit/Workshop Awards in lieu of indirect costs.

Objectives: Support is provided for the following:

Planning visits to assess foreign facilities, equipment, or subjects of research, and to have detailed discussions with prospective foreign partners to finalize plans for cooperative research. Visits typically range from seven to fourteen days.

Joint workshops designed to identify common research priorities, focused on a specific, well-defined area of research collaboration. U.S. and international co-organizers collaboratively design the agenda around a disciplinary or inter-disciplinary theme, and invite individuals who will uniquely contribute to the workshop’s objectives. Workshops may be held at either a U.S. or foreign location. Workshop results should include recommendations to the research community about possible areas for future collaboration and should be broadly disseminated. The pool of U.S. participants should include junior researchers, women and members of underrepresented groups, and, where appropriate, graduate and/or undergraduate students.

NIJ, Crime and Justice Research [78487]

Deadline: 03/05/08

Scope: The sponsor is seeking applications for funding of social and behavioral research on, and evaluations related to, crime and justice topics relevant to State and/or local criminal and juvenile justice policy and practice.

Funding: It is anticipated that up to a total of $4 million may become available for awards made through this solicitation, a potential doubling of support over prior years. Under this solicitation, the sponsor may consider proposals for research projects of up to $1 million or more per award. Additionally, as in previous Crime and Justice Research solicitations, the sponsor intends to consider proposals for research projects at lower levels of funding, typically ranging from $100,000 to 400,000 per award.

Objectives: This program is an open solicitation for social and behavioral research and evaluation on topics relevant to State and/or local criminal and juvenile justice policy and practice. Most crime and justice topics that are relevant to policymakers and practitioners are eligible for consideration. Potential applicants are encouraged to read the sponsor's targeted solicitations as they are released to determine which solicitation is most appropriate for their proposal and to get an indication of NIJ’s areas of interest. A list of anticipated solicitations is posted on the NIJ Web site. Under this Crime and Justice Research solicitation, priority will be given to applications for funding of research in areas that do not duplicate NIJ’s targeted solicitations, or applications that could be considered under those targeted solicitations but require substantially higher levels of funding.

Within applications proposing evaluation research, funding priority will be given to experimental research designs that use random selection and assignment of participants to experimental and control conditions. When randomized designs are not feasible, priority will be given to quasi-experimental designs that include contemporary procedures like Propensity Score Matching and Regression Discontinuity Design to address selection bias in evaluating outcomes and impacts. Proposed evaluation research designs with multiple units of analysis and multiple measurements will also be given priority. Design aspects that contribute to the validity of results are necessary to effectively address issues of generalizability and representativeness of findings. Finally, applications that include addi-
national costs/benefits analysis will be given priority. Costs/benefits analysis is viewed by NIJ as an effective way to communicate and disseminate findings from evaluation research.

Entertainment Software Association Foundation [92412]
Deadline: 04/15/08
Scope: The sponsor offers support for positive programs and opportunities that make a difference in the quality of life, health and welfare of America’s youth. The sponsor seeks to harness the collective power of the interactive entertainment industry to create positive social impact in our communities. The interactive entertainment industry supports geographically diverse projects and programs that benefit American youth of all races and denominations and both genders.

Objectives: The sponsor supports specific projects or programs that are or will be in two or more states in the United States and serve youths ages 7-18, and that provide youth programs in one or more of the following areas: Skills & Personal Development; General Health & Welfare; Risk Behavior Prevention; Education; and Multimedia arts/technology related or applied.

Electronic Data Systems Foundation [83264]
Deadline: 02/25/08, 06/30/08, 10/13/08
Scope: The sponsor provides support to non-profit organizations involved in education, health and human services, and arts & culture. The sponsor will also focus on supporting comprehensive technology solutions that increase performance and productivity in educational institutions and community organizations globally. Program elements include: access to technology; content; technical infrastructure; professional development; and evaluation.

Funding: Organizations based outside of the United States require a minimum request of $10,000. The Foundation does not approve multi-year grants, but organizations may re-apply annually.

Objectives: The sponsor is interested in supporting programs that provide solutions for narrowing the "digital divide." Program elements would include: access to technology (only in combination with the following program elements); content; technical infrastructure; professional development; and evaluation.

Other program categories include: arts and culture (i.e. arts education and outreach programs that support exhibitions, special performances, concert series, and exhibits); health and human services (i.e. programs that support perinatal care, immunization, illness prevention, education on health care, access to health care, etc.); and general education (i.e. after-school programs, mentoring, tutoring, etc.).

America Honda Fd. [09372]
Deadline: 05/01/08
Scope: The sponsor provides grant support for projects in the areas of youth and scientific education.

Funding: Average grants range from $10,000 to $100,000 per year.

Objectives: Programs related to youth and scientific education should be: dedicated to improving the human condition of all mankind; soundly managed and administered by enthusiastic and dedicated individuals who approach their jobs in a youthful way; look to the future or foresightful programs; and innovative and creative programs that propose untried methods which ultimately may result in providing solutions to the complex cultural, educational, scientific and social concerns currently facing the American society.

SCIENCES

NSF, Particulate and Multiphase Processes Program [89638]
Deadline: 03/01/08, 09/15/08
Scope: The sponsor provides funding to support fundamental and applied research on mechanisms and phenomena governing particulate and multiphase processes, including granular and granular-fluid flows, particle/bubble/droplet interactions, aerosol science and technology, suspensions, micro- and nano-structured fluids, self- and directed-assembly of nanostructures and related instrumentation and diagnostics.

Funding: The duration of unsolicited awards is generally one to three years. The average annual award size for the program is $80,000.

Objectives: The program supports fundamental and applied research on mechanisms and phenomena governing particulate and multiphase processes, including granular and granular-fluid flows, particle/bubble/droplet interactions, aerosol science and technology, suspensions, micro- and nano-structured fluids, self- and directed-assembly of nanostructures and related instrumentation and diagnostics. Innovative research is sought that contributes to improving the basic understanding, design, predictability, efficiency, and control of particulate and multiphase processes with particular emphasis on: new frontiers in nanotechnology, novel manufacturing techniques, nano-meterology, multiphase transport in biological systems, environmental sustainability, critical infrastructure systems and complex engineering systems. Collaborative and interdisciplinary proposals are encouraged; proposals that include a combination of experimental and theoretical approaches are more likely to receive funding than solely theoretically or experimentally oriented work. Highly reviewed projects generally demonstrate a strong scientific basis together with clear practical applications. Current research focus areas include: multiphase flow phenomena (particle/bubble/droplet dynamics), structured fluids (colloids, ferro-fluids), and self and directed assembly of particles into functional devices; granular and granular-fluid flows (flow and mixing of powders, effects of particle cohesion, fluidization, particle transport systems); particle science and technology.
An Eye on Funding (Continued from page 8)

(aerosols, production of particles with engineered properties, assembly of particles into functional materials and devices, environmental issues, nanotoxicology); multi-scale models of multiphase systems (emphasis on novel approaches connecting micro- and nanoscale phenomena and properties with process-level variables); and multiphase transport in biological systems (emphasis on applications of functionalyzed nanostructures in clinical diagnostics and therapeutics).

NSF, Thermal Transport Processes [93840]
Deadline: 03/01/08, 09/15/08
Scope: The sponsor provides funding to support research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal phenomena underlying energy conversion, the synthesis and processing of materials, cooling and heating of buildings and equipment, the interaction of industrial processes with the environment, the propulsion of air and land-based vehicles and thermal phenomena in biological and environmental systems.
Funding: The duration of unsolicited awards is generally one to three years. The average annual award size for the program is $90,000.
Objectives: The program supports research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal phenomena underlying energy conversion, the synthesis and processing of materials, cooling and heating of buildings and equipment, the interaction of industrial processes with the environment, the propulsion of air and land-based vehicles, and thermal phenomena in biological and environmental systems. The program supports fundamental research and education in transport processes that occur by thermal gradients and thermal history, and their manipulation to achieve engineering goals. This engineering science forms an important part of the intellectual infrastructure of a number of modern technologies.
Basic research in flow and convective processes with and without phase change, heat and mass transfer at nano- and molecular scales, radiative transport, and the fundamental characterization of material properties important to these processes are especially relevant to this program. Priority is given to innovative, insightful investigations of fundamental problems with broad applications and to novel use of heat transfer principles to meet the engineering needs of the nation.
Some examples of critical new fundamental areas include: thermal transport in energy conversion processes, including environmental interactions, is of interest to reduce the nation’s dependence on petroleum and to enhance the nation’s sustainability; heat and mass transfer at small scales covering phenomena with length and/or time scales from the molecular to the continuum, is a subject of continuing importance to energy conversion, biotechnology, microelectronics and biochemical detection; and the fundamental understanding of the interaction of energetic beams, such as lasers, with solid surfaces is vital to the evolution of advanced micro- and nano-manufacturing techniques.

NSF, Chemical and Biological Separations Program [93838]
Deadline: 03/01/08
Scope: The sponsor provides funding to support fundamental research on novel methods and materials for separation processes.
Funding: The duration of unsolicited awards is generally one to three years. The average annual award size for the program is $80,000.
Objectives: The program program supports fundamental research on novel methods and materials for separation processes. These processes are central to the chemical, biochemical, materials, energy and pharmaceutical industries. A fundamental understanding of the interfacial, transport, and thermodynamic behavior of multiphase chemical systems as well as quantitative descript
The sponsor provides funding for research focusing on the structure, function, and regulation of plant, animal and microbial cells and their interactions with the environment and with one another. Objectives: Areas supported include studies of the structure, function, and assembly of cellular elements, such as the cytoskeleton, membranes, organelles, intracellular compartments, intranuclear structures, and extracellular matrix, including eukaryotic and prokaryotic cell walls and envelopes. In addition, support is provided for the study of intracellular and transmembrane signal transduction mechanisms and cell-cell signaling processes, including those that occur in biofilms. Research on cellular recognition and self-defense mechanisms is included. Research utilizing both traditional and innovative methodologies, multidisciplinary approaches, technique development, computation and modeling, and approaches that exploit genomic information is encouraged. Multi-disciplinary approaches to the study of cellular systems, including research carried out at the interfaces of biology, physics, chemistry, mathematics and computer science and engineering are also encouraged. The Microbial Observatories and Microbial Interactions and Processes competition is also housed in this cluster. This expanded activity supports integrative studies that explore novel microorganisms, their interactions in consortia and communities and aspects of their physiology, biochemistry and genomics in relationship to the processes that they carry out in the environments.

**NSF, Cellular Systems Cluster [93830]**
**Deadline:** 07/12/08
**Scope:** The sponsor provides funding to support studies on genomes and genetic mechanisms in all organisms, whether prokaryote, eukaryote, phage or virus.
**Objectives:** Funding is provided to support studies on genomes and genetic mechanisms in all organisms, whether prokaryote, eukaryote, phage or virus. Proposals on the structure, maintenance, expression, transfer, and stability of genetic information in DNA, RNA and proteins and how these processes are regulated are appropriate. Areas of interest include genome organization, molecular and cellular evolution, replication, recombination, repair and vertical and lateral transmission of inheritable information. Of equal interest are the processes that mediate and regulate gene expression, such as chromatin structure, epigenetic phenomena, transcription, RNA processing, editing and degradation and translation. The use of innovative in vivo and/or in vitro approaches, including biochemical, physiological, genetic, genomic and/or computational methods, is encouraged, as is research at the interfaces of biology, physics, chemistry, mathematics and computer science and engineering.

**NSF, Developmental Systems [91742]**
**Deadline:** 07/12/08
**Scope:** The sponsor supports research aimed at understanding how interacting developmental processes give rise to the emergent properties of organisms. A systems level approach to understanding these processes, at the molecular, cellular and organismal levels of organization, requires the use of molecular, genetic, biochemical and physiological techniques as well as techniques from outside biology. The Developmental Systems Cluster is also particularly interested in understanding how emergent properties result in the development of complex phenotypes and lead to the evolution of developmental mechanisms. Funding is provided in the following areas:

- **Plant, Fungal and Microbial Developmental Systems--The Plant, Fungal and Microbial Development programmatic area supports research that addresses developmental processes in plants from algae to angiosperms, microbes and fungi.**
- **Animal Developmental Systems--Animal Developmental Systems programmatic area supports research that seeks to understand the processes that result in the complex phenotype of animals. Because different organisms may be more amenable to certain approaches than others, analyses of development in a wide range of different species are encouraged.**
- **Evolution of Developmental Systems--The Evolution of Developmental Systems programmatic area supports research to discover the developmental processes shared by all organisms and those singular ones that produce diversity (phenotypic variation within a species and/or between species). What developmental changes have given rise to new phenotypes? How are gene networks modified to generate different phenotypic outcomes? To answer these and other evolutionary questions will likely require inter-disciplinary and collaborative approaches using a wide range of model systems.**

**NSF, Environmental Technology [90488]**
**Deadline:** 03/01/08, 09/15/08
**Scope:** The sponsor provides support to develop and test new technologies.
An Eye on Funding (Continued from page 10)

across the range of sub-areas and activities in the field of environmental engineering. These include new devices and systems for more effective pollutant removal from air and water, as well as new technologies that minimize or avoid the pollutant generation inherent in older commercial and domestic processes and activities. Fundamental and basic research is solicited in establishing and understanding results in topical areas sought. The program also supports research on the development and refinement of sensors and sensor network technologies that can be used to measure a wide variety of physical, chemical and biological properties of interest in characterizing, monitoring and understanding environmental systems.

Objectives: The program fosters engineering research with the goals of: reducing adverse effects of pollutant discharges from human activities, and enhancing the quality and integrity of the natural environment that provides essential ecological services to humans. The program emphasizes engineering principles underlying pollution avoidance as well as pollution treatment and remediation. Innovative production processes, waste reduction, recycling and industrial ecology technologies are important to this program. The program supports research on innovative techniques to restore polluted land, water and air resources. Current areas of support include: nanotechnology, environmental, health and safety implications and applications; environmental cyberinfrastructure; sensor and sensor network technologies as they relate to the natural ecosystem health; mitigation of human impacts, including those resulting in pollution of the environment (including the effects to water, land and air), and technologies as employed by phytoremediation and other methods to identify and understand the contamination product, control and elimination encouraged; treatment technologies for hazardous and solid waste; and mitigation of environmental impacts of both natural and man-made disasters.

NSF, Environmental Engineering [90485]
Deadline: 03/01/08, 09/15/08
Scope: The sponsor provides funding to support research and educational activities across the broad field Environmental Engineering serves, with the goal of applying engineering principles to understand and reduce adverse effects of solid, liquid and gaseous discharges into land, inland and coastal waters and air that result from human activity and that impair the ecological and economic value of those resources. Objectives: The Environmental Engineering program supports research and educational activities across the broad field it serves, with the goal of applying engineering principles to understand and reduce adverse effects of solid, liquid and gaseous discharges into land, inland and coastal waters and air that result from human activity and that impair the ecological and economic value of those resources. It fosters cutting-edge research based on fundamental science and four types of engineering tools—measurement, analysis, synthesis and design. Major areas of interest and activity in the program include: developing innovative biological, chemical and physical treatment processes to remove and degrade pollutants from water and air; measuring, modeling and predicting the movement and fate of pollutants in the environment; and developing and evaluating techniques to clean up polluted sites, such as landfills and contaminated aquifers, restore the quality of polluted water, air and land resources, and rehabilitate degraded ecosystems. The program fosters environmental sustainability through the development of techniques to minimize or avoid generating pollution. Research may be directed toward improving the cost-effectiveness of pollution avoidance, as well as developing new principles for pollution avoidance technologies. Research for new and improved sensors of environmental conditions and innovative waste reduction and recycling processes also are important components of this program.

NSF, Environmental Sustainability [90482]
Deadline: 03/01/08, 09/15/08
Scope: The sponsor provides funding to support engineering research with the goal of promoting sustainable engineered systems that support human well-being and are compatible with sustaining natural (environmental) systems, which provide ecological services vital for human survival.

Objectives: Funding is provided to support engineering research with the goal of promoting sustainable engineered systems that support human well-being and are compatible with sustaining natural (environmental) systems, which provide ecological services vital for human survival. The long-term viability of natural capital is critical for many areas of human endeavor, including agriculture, industry and tourism. Research in Environmental Sustainability considers long time horizons and incorporates contributions from the social sciences and ethics. The program supports engineering research that seeks to balance society’s need to provide ecological protection and maintain stable economic conditions. Four areas of research are supported: Industrial Ecology, Green Engineering, Ecological Engineering and Earth Systems Engineering.

NSF, Energy for Sustainability [90480]
Deadline: 03/01/08, 09/15/08
Scope: The sponsor provides funding to support fundamental research and education in energy production, conversion, and storage and is focused on energy sources that are environmentally friendly and renewable.

Objectives: Funding is provided to support fundamental research and education in energy production, conversion, and storage and is focused on energy sources that are environmentally friendly and renewable. Most world energy needs are currently met through
the combustion of fossil fuels. With projected increases in global energy needs, more sustainable methods for energy production will need to be developed and production of greenhouse gases will need to be reduced.

Sources of sustainable energy include sunlight, wind and biomass. Hydrogen and alcohols are potential energy carriers that can be derived from renewable sources. Research that generates enabling science and technologies for more efficient hydrogen and storage is supported by the program. Potential sources of hydrogen include conversion from biomass and from electrolysis, photolysis or thermolysis of water. Biomass is available from agricultural crops and residues, forest products, aquatic plants and municipal wastes. In addition to hydrogen, biomass can be a source of liquid, solid and gaseous fuels including biofuels such as ethanol. Fuel cells have the potential to convert fuels such as hydrogen and alcohols to electricity at high efficiencies and should play an increasing role in energy conversion. Critical components of low temperature fuel cells requiring additional research include catalysts, membranes and electrolytes. Development of these components also requires fundamental research on the reaction and transport mechanisms at the catalyst and membrane electrolyte interface.

Advances in these areas are needed to address key challenges in efficiency, durability, power density and environmental impacts. The engineering aspects of fuel-cell design and operation also require further study in areas such as water and thermal management. Wind power is a growing source of electrical energy. Increased efficiency requires a fundamental knowledge of the interaction of wind with the blade structure. Understanding the fluid flow, and optimizing blade design are important aspects in developing more efficient wind generators. Photovoltaic devices have the potential to supply a significant fraction of electrical energy to the power grid. Although silicon-based materials have been most widely used, other semiconducting materials and titanium dioxide also have potential. New materials and novel fabrication techniques for solar energy conversion are supported by the program.

**NSF, Biological Physics (BP) [87649]**
**Deadline:** 07/31/08

**Scope:** The sponsor provides funding to support projects in which the analytical and experimental tools of physics are applied to the study of problems originating in the living world. **Objectives:** The program supports projects in which the analytical and experimental tools of physics are applied to the study of problems originating in the living world. Both experimental and theoretical projects will be considered, although the main focus of the program is in the experimental area. Of particular interest are projects in which new experimental approaches are brought to bear on a well-identified problem. These approaches should at the same time have the potential for broad applicability to a set of similar problems, thereby adding to the set of tools the scientist has for addressing biological problems in general. While the problems under study must be important to advancing understanding of the living world in a meaningful way, particular emphasis will be placed on those projects in which the lessons learned from the application serve to foster new concepts and ideas that expand the intellectual basis of physics.

**NSF, Long Term Research in Environmental Biology (LTREB) [83113]**
**Deadline:** 07/09/08

**Scope:** The sponsor encourages the submission of proposals aimed at generating long time series of biological and environmental data that address particular ecological and evolutionary processes. The sponsor will support competitively reviewed projects that continue critical and novel long-term data collection aimed at resolving important issues in environmental biology. **Funding:** Awards are not to exceed $90,000 per year (direct and indirect costs) or $450,000 over the initial five-year (sixty month) effort. The sponsor anticipates making fifteen to twenty awards annually for a total of $2,000,000. Researchers may request up to one month of salary per year. **Objectives:** Two major components are required in a project: Long-term Research and Plan for Data Dissemination.

Long-Term Research: The sponsor recognizes that five years is not adequate to address many pressing questions in environmental biology. In response, the LTREB Program now encourages decadal research projects. This decadal perspective requires that proposers develop a conceptual framework that spans at least ten years. This framework will be a critical component of an initial five-year proposal, and questions or hypotheses outlined in this framework must guide any subsequent renewal. At least six years of data must have been collected continuously at an appropriate time interval (for example, monthly or annually) and must be documented to seek LTREB funding. Justification must be provided for continuing data collection for at least ten years beyond the initial six-year period. Although most LTREB projects involve field studies, some laboratory projects (for example, long-term selection experiments) may also be suitable for LTREB funding. The approach to data collection must be hypothesis driven. The LTREB Program does not support basic monitoring efforts.

Plan for Data Dissemination: Data from long-term research projects have value beyond the peer-reviewed and other publications generated by the investigators collecting the data. Other researchers may develop new perspectives on the same long-term data or new ideas may arise from a combination of long-term data sets. Also, long-term data are expected to be of special interest to the public. Therefore, all proposals must describe details of information management and plans for data sharing with...
the broader research community and the interested public.

**NSF, Emerging Models and Technologies for Computation (EMT)** [77715]

**Deadline:** 03/13/08

**Scope:** This program seeks to advance the fundamental capabilities of computer and information sciences and engineering by capitalizing on advances and insights from areas such as biological systems, quantum phenomena, nanoscale science and engineering, and other novel computing concepts. It is anticipated that $16 million will be available to fund twenty awards.

**Funding:** It is anticipated that $16 million in funding will be available for FY 2008. It is anticipated that twenty awards will be made: Up to 8 Small awards will be made with an average award size of $150,000/year for up to three years. Up to 8 Medium awards are anticipated with an average award size of $330,000/year for up to three years. Up to 4 Large awards will be made, each with a budget up to $1,000,000/year for up to three years.

**Objectives:** The EMT program will support research and education projects that investigate frameworks and foundations for novel computing models. Anticipated activities include, but are not limited to modeling and simulation of biological computing and communication systems; design of computing and communication models based on desirable features of biological systems; investigation of various aspects of quantum-based approaches to processing information and data communication; and investigation of innovative nanoscale science and engineering approaches that promise radical innovations in computing and communication systems.

Because of the exploratory nature of the research supported by the EMT program, the research areas described in this solicitation are illustrative of the research areas that the EMT program seeks to fund. In addition, while each research area described below deals with a set of specific topics internal to the research area, research issues inevitably straddle artificially imposed boundaries. The EMT program encourages projects that transcend the confines of each of the research areas elaborated below.

1. **Biological Systems Science and Engineering (BSSE)**--This area of the program is interested in research that explores opportunities at the intersection of biology and computer science, with a specific focus on activities that advance our understanding of computing and communication processes in biological systems in order to recreate or use them as models for, or demonstrations of, innovative new computing and communication systems.

2. **Quantum Information Science (QIS)**--The goal of this area is to explore disruptive innovations in computing and communication systems by drawing upon new insights and understanding in Quantum Information Science (QIS), ultimately leading to the stronger unification of information sciences, quantum physics, and molecular biology.

3. **Nanotechnology for Computing and Communication (NANO)**--This program area supports research that aids and advances the physical design/realization of novel, nanoscale computing, communication and information processing models. There is considerable evidence that building a physically stable structure, molecule by molecule, is quite feasible. For example, self-assembly - a method of fabrication that relies on chemicals forming larger structures without centralized or external control - is potentially an important technique for producing computing components at the nanoscale. Both theoretical and experimental research is encouraged.

4. **Other Emerging Models and Technologies for Computing and Communication (MISC)**--In addition to the three main areas of emerging models and technologies so far described in the solicitation (i.e., Biological Systems Science and Engineering, Quantum Information Science, Nanotechnology for Computing and Communication), the EMT program also supports innovative projects that apply other emerging models and technologies to create fundamentally new computing and communication systems.

**NSF, Theoretical Foundations 2008 (TF08)** [77554]

**Deadline:** 03/19/08

**Scope:** The sponsor provides support for projects designed to determine inherent limits of computation and communication, and to obtain optimal solutions within those limits.

**Funding:** Approximately $35 million is available to fund sixty to seventy-five awards. Approximately fifteen small awards at $60,000/year (up to three years) or less will be made. For example, projects by new faculty may require NSF support for only one student or for summer salary. Most small awards will go to (or preference will be given to) PI's who have not previously been a PI or coPI on an NSF award. Up to fifty-five awards will be made with an average grant size of $125,000/year for durations up to three years. Up to five awards of up to $500,000/year for well-integrated projects of larger scope are anticipated. No more than one three-year award will be made with a budget up to $1,000,000/year.

**Objectives:** The TF program comprises five program elements: Communications Research; Numeric, Symbolic and Geometric Computing; Signal Processing Systems; Scientific Foundations for Internet's Next Generation (SING); and, the Theory of Computing. The program supports research within the purview of these elements as well as research that spans multiple areas.

1. **Communications Research:** The cluster seeks advances in theory and techniques, as well as supporting software and hardware, for the efficient representation, transmission and reception of digital and analog information over a variety of channels (e.g., wired, mobile multi-antenna wireless, optical, and biological channels.) Research and education contributions to a)
theory, b) algorithms, and c) applications based on new theoretical foundations are sought.

2. Numeric, Symbolic and Geometric Computing: This element investigates the application of computing to mathematical objects, such as differential equations, algebraic structures, and geometric constructs. The goal of NSG projects is increased understanding of computing through investigations in this domain. The NSG program element is sub-divided into three areas: a) numerical computing and optimization; b) symbolic and algebraic computation; and c) computational geometry. However, new ventures that combine numerical, algebraic, symbolic, and computational paradigms are especially welcome.

3. Signal Processing Systems: element supports basic research in signal processing algorithms and supporting software and hardware systems that ensure signal processing remains an enabling technology for information systems and serves as a catalyst for new technological and theoretical innovations. Specific research topics of interest include, but are not limited to, the following: sampling/representation, compression and enhancement of both one-dimensional and multidimensional spatial-temporal data; statistical signal and array processing; multimedia and multimodal signal processing precipitated by the needs of surveillance as well as the entertainment industry; signal processing for wireless communications; collaborative/distributed signal processing for sensor networks and other distributed systems; novel biometric signal/image processing methodologies for national security; signal processing for biomedical applications; signal processing methods inspired by fundamental biological processes including sequencing as well as cellular communication. Also of interest is research in new paradigms that enlarge the scope of signal processing from the domain of the linear to the realm of the non-linear – from linear algebra to algebra, from Euclidean to curved spaces, from uniformly to highly non-uniformly time and space sampled processes, to signal processing on graphs. Research that will develop efficient power aware and hardware-friendly algorithms and research on signal processing algorithms for the new network science of distributed, decentralized, and cooperative algorithms that avoid global communications is encouraged. The exploration of new approaches to manage massive datasets, such as compressive sampling, also promise advances in the field.

4. Scientific Foundations for Internet's Next Generation (SING)--The theory of networked computing is a new formulation of state-of-the-art problems faced by computer networks. Control, especially feedback problems, is expected to play an increasing role in the Internet. Models hinging on temporal and spatial distribution of information and power are sought. Network theory is likely to provide new insights into the theoretical foundations of social networks, game theory, and auction theory. Further, mobile information sources are likely to inspire new insights in the theory of computing. Fundamental theoretical and algorithmic studies involving coordination and cooperation are encouraged. Scalability, complexity, and interactivity problems need to be addressed. Tradeoffs between communication and computation and storage are of vital interest. Applications based on new theoretical foundations require investigations ranging from the role of location from spatial behavior of propagation to "place." In general, applications of sensing and control over the network, along with the theoretical underpinnings, are of interest.

5. Theory of Computing--Specific areas in the theory of computing element of TF include but are not limited to: design and analysis of algorithms (probabilistic, approximation, sublinear, parallel/distributed, on-line, etc.); data-structures; computational complexity; randomness and derandomization; cryptography; discrete and computational geometry; games, economics, and auctions; combinatorics, combinatorial optimization, algorithmic graph theory; hardness of approximation; mathematical learning theory; logic and formal methods; quantum computation; networks and the theory of network computation; computational biology; and coding and information. Work in the theory of computing that is directed towards applications in other areas of computer science, or in other areas of science, is welcome. This is the case especially when the application necessitates the development of new theory.

DOA, Arthropod and Nematode Biology and Management--Conference Grant (NRCGP) [77439]
Deadline: 03/14/08
Scope: Support is provided for scientific conferences focusing on fundamental and applied research at the organismal and population level to address the problem of managing invasive and re-emerging pests and enhancing use of beneficial organisms.

Funding: Applications may be submitted by any State agricultural experiment station, college or university, other research institution or organization, Federal agency, national laboratory, private organization, corporation, or individual. Multidisciplinary research is encouraged, including collaborations between departments and institutions that integrate relevant scientific disciplines.

Objectives: The sponsor provides funding in the following four elements: Organismal and Population Biology; Suborganismal Biology; Tools, Resources, and Genomics; and Protection of Managed Bees. The intentional or accidental introduction of arthropod or nematode pests into the U.S. is a major threat to the security of agricultural systems, our food supply, and communities. To combat these threats, conventional agricultural chemicals are the primary means to control most of these pests, despite concerns about adverse effects.
on public health, non-target organisms, and natural resources. Environmentally safer alternatives have been developed in some systems, such as the use of biological control organisms (e.g. parasites, predators, and microbes), semio-chemicals, resistant plant varieties, and genetically modified crops that resist attack by pests. However, fundamental knowledge of arthropod and nematode biology, which could lead to better usage of these alternatives or novel approaches to management, is still lacking in many areas. In addition, growing demands for organically-grown commodities in the U.S. has led to increased needs for biologically-based approaches to managing pests. Also, the health of pollinator populations could be greatly improved if the mechanisms that affect susceptibility to pests, diseases, disorders, and environmental stressors were better understood. To meet these identified needs of agriculture, the long-term (10-year) goals of this program area are to 1) improve our understanding of the biotic and abiotic factors associated with establishment and distribution of pests and beneficial species; and 2) develop the scientific and technological framework for environmentally sound pest management strategies. Examples of promising outcomes include genetically modified arthropods or nematodes for pest control, improved utilization of biological control organisms, development of novel pheromone blends or biologically-based pesticides, and adoption of pest-resistant strains of managed bees.

DOA, Arthropod and Nematode Biology and Management—Standard Research Grant (NRCGP) [77437]
Deadline: 03/14/08
Scope: This program invites both fundamental and mission-linked proposals for innovative research in the area of organismal and population biology of arthropods and nematodes. The sponsor provides funding to support research in the following systems: Horticultural and field crops, forests, rangelands, urban landscapes, livestock, and food or feed transported and stored for human consumption. Pest organisms are limited to insects, mites, ticks, plant-parasitic nematodes, and weeds in the context of a biological control agent. Beneficial species include biological control organisms (e.g. insects, microbes, or nematodes) of the above pests and pollinators. Arthropods, which vector plant or livestock diseases important to agriculture, are also appropriate.

Funding: Under Organismal and Population Biology, proposed research budget requests must not exceed $350,000 for single-investigator projects and $450,000 for multi-institutional or multidisciplinary projects for project periods of 2-4 years (including indirect costs). Under Suborganismal Biology, proposed research project budget requests must not exceed $400,000 for project periods of 2-4 years (including indirect costs). For the Tools, Resources, and Genomics elements, proposed research project budget requests must not exceed $750,000 for project periods of 2-4 years (including indirect costs). For the Protection of Managed Bees Coordinated Agricultural Project (CAP), proposed integrated project budget requests must not exceed $1 million per year, not to exceed 4 years, providing a total award of $4.0 million (including indirect costs).

Objectives: The sponsor provides funding in the following four elements: Organismal and Population Biology; Suborganismal Biology; Tools, Resources, and Genomics; and Protection of Managed Bees.

The intentional or accidental introduction of arthropod or nematode pests into the U.S. is a major threat to the security of agricultural systems, our food supply, and communities. To combat these threats, conventional agricultural chemicals are the primary means to control most of these pests, despite concerns about adverse effects on public health, non-target organisms, and natural resources. Environmentally safer alternatives have been developed in some systems, such as the use of biological control organisms (e.g. parasites, predators, and microbes), semio-chemicals, resistant plant varieties, and genetically modified crops that resist attack by pests. However, fundamental knowledge of arthropod and nematode biology, which could lead to better usage of these alternatives or novel approaches to management, is still lacking in many areas. In addition, growing demands for organically-grown commodities in the U.S. has led to increased needs for biologically-based approaches to managing pests. Also, the health of pollinator populations could be greatly improved if the mechanisms that affect susceptibility to pests, diseases, disorders, and environmental stressors were better understood. To meet these identified needs of agriculture, the long-term (10-year) goals of this program area are to 1) improve our understanding of the biotic and abiotic factors associated with establishment and distribution of pests and beneficial species; and 2) develop the scientific and technological framework for environmentally sound pest management strategies. Examples of promising outcomes include genetically modified arthropods or nematodes for pest control, improved utilization of biological control organisms, development of novel pheromone blends or biologically-based pesticides, and adoption of pest-resistant strains of managed bees.

NSF, Research on Gender in Science and Engineering (GSE) [45444]
Deadline: 04/07/08
Scope: The program seeks to broaden the participation of girls and women in all fields of science, technology, engineering, and mathematics (STEM) education by supporting research, diffusion of research-based innovations and extension services in education that will lead to a larger and more diverse domestic science and engineering workforce. Typical projects will contribute to the knowledge base addressing gen-
nder-related differences in learning and in the educational experiences that affect student interest, performance, and choice of careers; how pedagogical approaches and teaching styles, curriculum, student services and institutional culture contribute to causing or closing gender gaps that persist in certain fields. Projects will disseminate and apply findings, evaluation results, and proven good practices and products to a wider community.

**Funding:** It is estimated that fifteen to twenty-two grants per year will be awarded; a mix of Research Awards, Diffusion of Research-Based Innovation Awards and Extension Services Awards. Research proposals may request up to $500,000 for up to three years, pending availability of funds. Diffusion of Research-Based Innovation budgets may request up to $250,000 for up to three years. Projects may ask for up to $100,000 more (for a total of $350,000) if they are partnering with institutions serving underrepresented populations. Extension Services proposals may request up to $500,000 each year for five years, with years four and five depending on performance. NSF expects to fund seven to ten Research proposals, seven to ten Diffusion proposals and one to two Extension Services proposals. It is anticipated that $5.0 million for new grants in all tracks will be awarded, pending the availability of funds.

**Objectives:** The program for Research on Gender in Science and Engineering seeks to build resources—developing the Nation's knowledge capital, social capital, and human capital—toward the goal of broadening the participation of girls and young women in STEM education from kindergarten through undergraduate education. Funding is provided in three areas:

- **Research Projects:** investigate factors behind the under-representation of girls and women in STEM education; formal and informal educational systems’ interaction with individuals that encourage or discourage interest and persistence in study or careers in certain fields. The sponsor's goals are to: discover and describe gender-based differences and preferences in learning science, engineering, technology and mathematics in K-16 and factors that affect interest, performance and choice of STEM study and careers in fields where there are significant gender gaps; discover and describe how experiences and interactions in informal and formal educational settings inhibit or encourage interest and performance of students based on gender; increase the knowledge about organizational models that lead to more equitable and inviting STEM educational environments in K-16; and increase the knowledge of the process of institutional change required to achieve more equitable and inviting STEM educational environments in K-16.

- **Diffusion of Research-Based Innovations:** provide a mechanism for informing a wider audience (e.g., teachers, faculty, guidance counselors, parents, etc.) about issues, research findings and strategies for changing educational practice. The sponsor's goals are to: extend to significant audiences awareness and information about research-based and demonstrated strategies and practices to increase the participation of girls and women in STEM education and workforce, in order to inform educational practice; and catalyze new thinking and future action among educational institutions by convening conferences, workshops or symposia that are not possible at regular meetings of professional societies.

- **Extension Services:** provide training and consulting services to educators and institutions, to enable them to adopt and embed proven gender-inclusive policies and practices in pedagogy, the design of curriculum materials, student support programs, educator and faculty development. Extension services employ a "train-the-trainer" model and are based on a "unified program of change." The sponsor's goals are to: integrate various findings about gender in science and engineering into a unified program of change or facilitate the interpretation of research knowledge into practice; provide training and consulting services in a certain geographic region, explaining in clear language the practical meaning and benefits of adopting programs, tools or approaches that enhance the interest and persistence of female students in STEM studies through the undergraduate level, in those fields where they are underrepresented; show educators how to adopt exemplary projects, research-based learning tools, pedagogical approaches and service or support programs; and communicate to researchers the problems that practicing educators find most urgent or troublesome in adopting the new methods or tools.

**American Honda Foundation [09372]**

**Deadline:** 02/01/08, 05/01/08

**Scope:** The sponsor provides grant support for projects in the areas of youth and scientific education.

**Funding:** Average grants range from $10,000 to $100,000 per year.

**Objectives:** Programs related to youth and scientific education should be: dedicated to improving the human condition of all mankind; soundly managed and administered by enthusiastic and dedicated individuals who approach their jobs in a youthful way; look to the future or foresightful programs; and innovative and creative programs that propose untired methods which ultimately may result in providing solutions to the complex cultural, educational, scientific and social concerns currently facing the American society.

**NSF, Industry/University Cooperative Research Centers—Planning Grants [08295]**

**Deadline:** 06/27/08 (for letters of intent)

**Scope:** Support is provided to academic institutions to plan joint industry/university research interests and to determine the feasibility and viability of developing a cooperative research center.

**Funding:** Planning Grants are made for eighteen months up to $10,000.
Objectives: This program develops long-term partnerships among industry, academia and government. Research centers are catalyzed by a small investment from the sponsor and are primarily supported by industry center members, with NSF taking a supporting role in their development and evolution. Each center is established to conduct research that is of interest to both the industry and the center. An I/UCRC contributes to the Nation’s research infrastructure base and enhances the intellectual capacity of the engineering and science workforce through the integration of research and education.

A planning grant supplies funds to study the feasibility of developing the industry/university interaction necessary to establish and support a Center. As part of this study, it is a requirement that a meeting that brings together potential members to explore opportunities and establish a research plan that fits their needs be held.

SOCIAL / BEHAVIORAL

NSF, Complexity and Interacting Systems in the Social, Behavioral and Economic Sciences [95044]
Deadline: 07/15/08
Scope: The sponsor plans to augment funding in its regular programs in order to encourage submission of proposals that advance understanding of complexity and interacting systems phenomena in SBE fields.

Objectives: Topics might include, but are not limited to: projects that advance understanding of emergent phenomena in behavioral and social systems, such as the emergence of creative breakthroughs in a scientist or artist; or of major structural shifts in the history of language; or of skilled behaviors like walking or talking; or of norms in a fictional online community; projects that examine stability and transformation in behavioral and social systems, such as the political systems tipping from stability to instability; a sudden cascade of suicidal behavior in a population of teenagers; or stability in the face of strong perturbations, such as the resilience of communities faced with serious natural disasters; projects examining complex interdependent, multi-scale and emergent behavioral, neural, cognitive, or social phenomena by building on, for example, scaling analyses; recurrence quantification; graph-theoretic, time-series, or symmetry-group techniques; and advances in theory and methods to validate results from models or simulations of complex systems.

Prospective SBE complexity proposals can involve data from field, lab or simulations. Proposals may, when submitted through our Science and Technology Studies Program, examine philosophical, sociological, ethical or policy implications of complexity in SBE fields.

NSF, Behavioral Systems [91747]
Deadline: 07/12/08
Scope: The sponsor supports research on the development, function, mechanisms and evolutionary history of behavior, with emphasis on a vertically integrated understanding of the behavioral phenotype.

Objectives: The sponsor supports research on the development, function, mechanisms and evolutionary history of behavior, with emphasis on a vertically integrated understanding of the behavioral phenotype. To foster this integrative goal, the sponsor specifically encourages projects that seek to understand how combinations of neural, hormonal, physiological and developmental mechanisms act synergistically as a system from which behavior emerges. Laboratory work or the study of animals in captivity is encouraged, to the extent that it contributes to the understanding of behavior in natural systems.

American Foundation for Suicide Prevention, Standard Research Grant [75993]
Deadline: 06/15/08
Scope: The sponsor provides support for investigators at any academic rank to conduct research on suicide from a variety of disciplines, including psychiatry, medicine, psychology, genetics, epidemiology, neurobiology, sociology, nursing, health services administration and many others.

Funding: Grants of up to $37,500 per year for a one- or two-year period are available.

Objectives: The sponsor provides support for investigators at any academic rank to conduct research on suicide from a variety of disciplines, including psychiatry, medicine, psychology, genetics, epidemiology, neurobiology, sociology, nursing, health services administration and many others.

Grant (William T.) Foundation, Major Grants [09020]
Deadline: 04/01/07
Scope: The sponsor provides support for research on how contexts such as families and programs affect youth, how these contexts can be improved, and how scientific evidence affects influential adults. It also funds various capacity-building activities to develop the infrastructure necessary to do this work. The sponsor also funds activities that encourage communication among influential policymakers, practitioners, scholars and members of the media.

Funding: Awards are typically between $200,000 and $500,000 and cover two to three years of support.

Objectives: The sponsor's grantmaking is for research, program evaluation studies, policy analysis studies, communications/dissemination and capacity building which will improve the lives of young people ages eight to twenty-five. The sponsor's current research priorities are: understanding and improving how social settings affect youth; understanding and improving social settings; and understanding and improving the use of scientific evidence.
A poster is any presentation that requires a board for hanging visual materials with a space in front for the presenter. For the purpose of assigning locations and facilities we must distinguish posters that require minimal facilities and poster-like presentations that require additional equipment or space.

Activities
Artistic installations and displays
Competitions
Computer graphic displays
Dance performances
Demonstrations
Dramatic performances
Musical performances
Panel discussions
Readings
Symposia

Student Awards
- The Helen Bohmer Daly Quest Award for Undergraduate Student Scientific Research - $1000
The award is to be given to an undergraduate student who is presenting his or her original research at Quest, and whose research involves the use of the scientific method.

- The Sigma Xi and ORSP (Office of Research & Sponsored Programs) Scientific Research Award, in the amount of $100, shall be given annually to the two best research projects presented at QUEST by students.

- The Bill Bosch Best Poster Award - $100

- Motion Graphics Competition - $100

- Web Page Design Competition - $100

- Best student presentation from the School of Education - $100

- Best student presentation from the School of Business - $100

- Creative Writing Competition - $100 each in five categories of creative writing.

Additional awards may be announced. Please check this page for further information and updates.

A Brief History Of Quest

In 1979, the Scholarly and Creativity Activities Committee (SCAC), then known as the Faculty Research Committee (FRC), attempted to come up with ways to encourage research on campus. One suggestion was to have a Scholarly Activities at Oswego Conference Day, where faculty could present their research to the campus community.

The Committee decided to ask the administration for permission to hold such a conference the following spring, and FRC Chair Helen Daly took the proposal to the administration. They reluctantly agreed, adding that we should not be disappointed by lack of participation, since “Oswego is a teaching college.” Quest had an impressive 77 presentations that first year.

Helen accepted the responsibility of organizing Quest. Originally scheduled for March 25, delays in printing the programs forced the presentation date to be changed to April 23. It was decided to call the conference “Quest ’80” after our quest for knowledge and the year.

In the opening session, Helen Daly gave introductory remarks. Assistant Provost Gubbi Sachidanandan (Sachi) introduced President Virginia Radley, who spoke on “Reasons Why,” and Provost Ralph Spencer, who spoke on “Quest for What.” After the first successful Quest, the FRC petitioned administration to approve Quest Day the following year. The administration was again dubious that faculty would find enough new material to have Quest every year, but reluctantly agreed to Quest ’81. That year Quest had fewer participants, but still had an honorable 56 presentations.

After the second Quest, the administration knew Quest would be a successful annual program, and canceled classes for Quest ’82 for the first time. The following year Quest included Honors Convocation and again classes were canceled for Quest ’83, and this practice has continued ever since. Quest ’83 also offered the first President’s Award for Creative and Scholarly Activity and Research and the first Sigma Xi lecture the eve of Quest.

In 1980, all of the Quest presentations were in Hewitt Union. For Quest ’93, Lanigan was used extensively for the first time. Now Quest is spread between Hewitt Union and Lanigan Hall, with special programs offered in Tyler Hall and Penfield Library. Few students presented their work in the original Quest ’80; now students give the majority of presentations. Quest ’04
even offered a presentation by a deaf student with the help of a signer. Quest '96 was dedicated to the memory of Helen Daly, because she took the concept of Quest and turned it into reality.

After running Quest for three years, Dr. Daly asked to break in a new person for Quest '83 to take over the following year. Others that have chaired or co-chaired the Quest Subcommittee include Jack Narayan, Warren Flint, Vince D’Ambrosio, Said Atri, Joe LeFevre, Karen Nicholas, Terry Hammill, Nola Heidlebaugh, Mary Loe, Alok Kumar, Al Lackey and Sarfraz Mian. In 1995, SCAC petitioned the administration for help in running Quest, and in 1996, Bill Bosch began chairing the Quest Subcommittee in his capacity as Director of CELT. In 2007, Jack Gelfand began chairing the Quest Subcommittee in his capacity as Director of the Office of Research and Sponsored Programs (ORSP).

**Curriculum Innovation Grants due**

-These grants will not support course revisions or course development that would be considered a normal part of the responsibilities of a faculty member in his/her own areas of expertise, i.e. incorporating new active learning strategies or assessments; collaborative assignments; or creating a new course within one’s area of current expertise.

**APPLICATION DEADLINES:**

Deadlines for each signature are given on the cover sheet. It is your responsibility to ensure those deadlines are met. Please also submit an electronic copy (MS Word format or Adobe Acrobat format) of your proposal when you forward your copy to the chair. You do not need to put signatures on the routing sheet for the electronic copy. The electronic copy should be e-mailed directly to Assistant Provost Michael Ameigh (ameigh@oswego.edu)

**ELIGIBILITY:** All full-time teaching faculty (including librarians), full-time temporary faculty who have multi-year contracts and are not in their final year, and non-teaching professionals on term and continuing appointment in the Division of Academic Affairs, are eligible to apply within this category with the following restrictions: Applicants may receive a maximum of one professional development award per year (Scholarly and Creative Activity Grant, Course Innovation Grant, and Student/Faculty Collaborative Challenge Grant). No grants are awarded to individuals who will be on sabbatical at the time they would receive the grant. Faculty who have had a grant approved and funded under this program are not eligible again for another two academic years. For example, a person who was awarded this grant in Spring 2005 is again eligible in the 2007 – 2008 academic year.

**FUNDING:** A faculty member may receive funding up to $2,400 for work on one course, with a maximum summer stipend of $2,000. Funding up to a total of $3,600 (with no person receiving more than a maximum summer stipend of $2,000) may be requested for collaborative work among multiple instructors of sections of the same course; a convincing rationale and description of the responsibilities of all participants on the project must be included. Funding may be used for instructor stipend(s) or materials used by instructor(s) to prepare for the new course. Funds may not be used to purchase equipment or materials to be used by students enrolled in the course; such items must be requested and funded through normal channels (e.g., Penfield Library for curriculum materials; SCAP funding for computer and other instructional technologies; department funding for supplies and equipment; etc). The Committee on Learning & Teaching (COLT) reserves the right to recommend a reduction to the amount of the award if appropriate.

**TIMELINE:** Proposals will be solicited once in each academic year. Projects will be completed over the summer. Assigned time during the academic year will not be supported by this program.

For complete guidelines visit the Provost’s web site at [http://www.oswego.edu/administration/provost/faculty_grants.html](http://www.oswego.edu/administration/provost/faculty_grants.html)
The Office of Research and Sponsored Programs (ORSP) is responsible for the development, coordination and financial management of all contracts and grants at the College. All externally sponsored projects for research, scholarly / creative activity, curriculum development or services utilizing SUNY Oswego facilities and / or personnel must be processed and administered through ORSP.

A project is externally sponsored if a grant or contract is awarded to the College in support of a specific activity. For example, external sponsors consist of federal and state agencies, private foundations, business and industrial enterprises, local and state governments and professional organizations. Sponsored projects include, but are not limited to, research, conferences, curriculum development, workshops, meetings, special events and scholarly and creative activities.

### ORSP Pre-Award Services Available

1. Maintain a faculty/staff profile of research and special projects interests
2. Match faculty/staff projects with potential sponsors
3. Notify faculty/staff of funding opportunities appropriate to their interests
4. Maintain a current resource collection of funding sources
5. Obtain guidelines and application forms
6. Assist with interpretation guidelines and preparation of agency forms
7. Provide technical and editorial critique of proposals
8. Discuss budget categories and provide assistance with the development of an appropriate inclusive budget
9. Assist with the development of competitive proposals
10. Submit assurance reports and policies to maintain an approved institutional animal care and use committee and human subject committee in compliance with state and federal procedures
11. Review of final application
12. Obtain administrative approvals
13. Submit proposals by mail or electronically per sponsor specifications
14. Negotiate grant awards and contracts
15. Establish a Research Foundation project account

ORSP Pre-Award works in conjunction with other campus resources such as Penfield Library, Instructional Computing Center, Learning Resources, Center for Excellence in Learning and Teaching to provide necessary services to project activity and appropriate reimbursements. It is essential that Project Directors discuss their anticipated needs during budget development prior to proposal submission to ensure adequate funds are allocated for these campus services.

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### ORSP Contact Information

**PRE AWARD**

<table>
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Visit our web site [http://www.oswego.edu/administration/ORSP/index.html](http://www.oswego.edu/administration/ORSP/index.html)