Some Insight into the Making of Scientists by Brad Wray

To the seasoned scientist, being a scientist becomes second nature. Consequently, it is easy to forget that scientists are socialized into the culture of science. The young student of science must acquire skills and knowledge in order to become an effective scientist.

In an effort to better understand the socialization of scientists I proposed to study a key stage in this socialization process with the aid of a grant from the Rice Creek Associates. Given that students pursuing a career in science inevitably work as research assistants for a scientist, I wanted to follow scientists-in-training as they go through this critical stage in their socialization. Just as ethnographers study distant cultures, I proposed to examine the socialization process as an outsider looking in. Understandably, the committee reviewing my proposal expressed some unease about what it was that I was proposing to do. Consequently, I am grateful for their willingness to take a chance on my rather unusual project. What I found is interesting, and it may shed light on the ways in which students of science can and should be educated.

I discovered that there is a tension in students’ initiation into the research process. On the one hand, the young scientists in training are unknown commodities. Their skills, knowledge and character are relatively unknown. On the other hand, the data they collect will be treated as reliable. Hence, though they may have proved themselves by performing well in laboratory courses, the data they now collect will be used in their supervisor’s research.

Dr. Peter Rosenbaum graciously allowed me and my research assistant to follow him and the seven research assistants he employed last summer as they embarked upon this stage of their development. Like ethnographers studying a strange culture, we watched the scientists in training interacting with each other, with Peter, and with the turtles and snakes they collected from the traps. My aim was to make sense of the process. Together, my research assistant and I took notes and photographs of the scientists at work. My assistant accompanied them to the bog where the traps were set. I met them in the lab as they measured and weighed the turtles, gathering the data that will

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ARTS

Graham (Elizabeth Firestone) Foundation [48257]
Deadline: 03/15/06
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.
Funds: Grant amounts typically range from $5,000 to $20,000.
Objective(s): The foundation 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 grantee organization and its programs or collections; exhibitions and installations (on or off site); visiting artist programs, and film projects in their final completion phase.

Residencies Program for Artists (MAAF) [68674]
Deadline: 01/20/06
Scope: Artists & Communities is a program that offers support for partnerships between visiting artists and nonprofit organizations engaged in community-based creative projects. The program supports residencies by visiting artists from New Jersey, New York, and Pennsylvania at organizations located in the region served by the Mid Atlantic Arts Foundation, a region that comprises Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, the U.S. Virgin Islands, and West Virginia.
Objective(s): Artists & Communities will support residency projects designed by artists and organizations in partnership. Creative artists (choreographers, composers, poets, writers, filmmakers, media, and visual artists of all kinds) will be supported in collaborative partnerships with arts and community organizations. These projects will serve to motivate and encourage people to examine issues of importance in their community. The program is specifically designed to support artists whose work is informed by or developed in conjunction with community participation. It is not intended to merely support workshops, classes, performances, or instructional programs. Nonprofit organizations must apply in partnership with the artist(s) they wish to host in the residency described in the application, and the project must be designed collaboratively by the artist and the host organization. Grant funds are administered by the host organization. Only artists who are residents of New Jersey, New York, or Pennsylvania are eligible as visiting artists through this program in 2006-07. Eligible nonprofit organizations (host sites) must be tax-exempt nonprofit corporations, or units of government. In addition, host organizations must be located in Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia, or the U.S. Virgin Islands. College and university departments, school programs etc., are also eligible to apply. Note, however, that Artists & Communities is not intended to be an arts-in-education program.
Visit the Mid Atlantic Arts Foundation for complete program guidelines, including information on finding a host or identifying potential visiting artists.

Charles Lafitte Foundation – The Arts [84895]
Deadline: Open
Scope: The mission of the Arts Program is to foster the growth of new artists, invest in established artists and expand access to the arts. As one of the primary outlets of human creativity, art is a vital resource in developing and maintaining healthy communities. As school budgets are often short on cultural opportunities, the foundation will favor educational programs that encourage students to release their creativity, inspire them to learn and empower them with achievement. The Foundation supports innovation and creativity in the arts, and is particularly interested in encouraging emerging artists and inspiring the development of new artistic work.

Puffin Foundation [84985]
Deadline: 12/30/05
Scope: The sponsor provides funding to encourage emerging artists in the fields of art, music, dance, photography, theater, and literature whose works, due to their genre and/or social philosophy might have difficulty being aired.
Funds: Average grants range from $1,000 to $2,500.

EDUCATION

American Educational Research Association [64551]
Deadline: 03/01/06
Scope: The sponsor provides support for research studies of education policy or practice using quantitative methods which include the analysis of data from at least one of the large-scale, national or international data sets supported by NCES or NSF.
Funds: Awards for Research Grants are up to $20,000 for one-year projects, or up to $35,000 for two-year projects.
Objective(s): The sponsor invites educational policy-related research proposals using NCES, NSF, and other national data bases. Research topics may cover a wide range of policy-related issues that include but are not limited to: school persistence and career entry; teachers and teaching, including supply, quality, and demand; policies and practices related to achievement; policies and practices that influence student and parental attitudes; contextual factors (individual, curricular, and school related) in education; education in middle schools; educational participation and persistence (kindergarten through graduate school); at-risk students; early childhood education; US education in an international context; school finance; materials (curriculum) development, research and informal science education; undergraduate science, engineering, and mathematics education; the supply (pipeline) of students taking mathematics and science courses from K-12; research career development; the quality of educational institutions; and methodological studies.

Education Program Grants (NIDDK) [80659]
Deadline: 02/01/06, 06/01/06, 10/01/06, 02/01/07, 06/01/07
Scope: The sponsor provides support for the development of flexible, curriculum-driven programs which aim to create educational opportunities that will attract undergraduate and graduate students and postdoctoral fellows to careers in areas of biomedical or behavioral research of particular interest to the sponsor and foster their career development.
Funds: This PAR will use the NIH Education Project Grant (R25) award mechanism. Applicants may request up to five years of support to develop a specific education program. The total annual requested direct costs on the R25 grant are limited to
An Eye on Funding (continued)

Deadline: 01/03/06
Scope: The Institute's goal is to help develop a critical mass of U.S. educational researchers using National Center for Education Statistics (NCES) and National Science Foundation (NSF) data sets for basic, policy, and applied research. The Institute provides hands-on training for researchers in the use of large-scale national data sets, with special emphasis on using these data sets for policy-related research in education.

Funds: Those selected for participation will receive support covering the Institute's fees, housing, and per diem for the period of attendance. Reimbursement for travel expenses is not included in this award.

Objective(s): The AERA Institute on Statistical Analysis for Education Policy is divided into three parts. The first part develops knowledge and skills in the use of NCES' and NSF's data sets, with focus on a different data base each year. Hands-on training of educational researchers in the use of data sets will significantly reduce the amount of time needed to learn how to use the data sets in general and to adapt them to particular research purposes. NCES technical staff provide this expertise during the Institute. The second component provides the methodological training appropriate to analysis of large-scale, often longitudinal, data sets pertinent to educational policy research. AERA members provide this part of the training. The third part of the Institute addresses current issues of policy and practice for which the focal data base is relevant. AERA members, NCES staff, and outside experts, as needed, jointly provide this portion of the training. The Institute is especially suited for doctoral candidates and new doctorates.

Obesity in Women (HRSA) [2941]
Deadline: 12/02/05
Scope: The Health Resources and Services Administration invites proposals to develop and demonstrate creative and innovative approaches that are effective in reducing the prevalence of overweight/obesity in women by increasing the number of women who attain healthy diets and active lifestyles;Signed to reduce the prevalence of obesity in childhood.

Funds: This PA will use the NIH Research Project Grant (R01), Small Grant (R03) and Exploratory/Developmental Grant (R21) award mechanisms. The small grant (R03) research mechanism should be used for support of pilot and/or feasibility studies for concepts that are sound and justifiable, but not sufficiently developed for the R01 mechanism. The R21 mechanism is intended to encourage new exploratory and developmental research projects and/or exploration of novel hypotheses and strategies.

Objectives: This initiative encourages evaluative comparisons of different intervention strategies, as well as the use of methods to detect synergistic interactions between different types of interventions. Possible areas within the school system that might be targeted for controlled interventions include the content of school curricula, teaching methodologies, staff education, physical education programs, the school environment, school food service programs, food service worker education, content and availability of vending machine snacks in school, school administrators, and parents.

Examples of research projects that would be responsive to this solicitation include, but are not limited to: curriculum changes designed to improve knowledge of healthy food choices and active lifestyles, and behavioral modification programs designed to attain healthy diets and active lifestyles; Specifically, this initiative encourages academic institutions and school systems to work together to develop and implement

Institute on Statistical Analysis for Education Policy (AREA) [72512]
ultimately find its way into Peter’s research. We also interviewed both the students and Peter in an effort to get their perception of the process.

What I was struck by was the fact that the students aimed to conform. That is, in their efforts to be effective at gathering data, they sought to get the same results as their peers. Indeed, differences were perceived as failure. To deviate too far from what the others got in their measurements suggested that one was not measuring their turtles correctly. On the other hand, Peter was looking for ways to distinguish the students, one from the other. Peter’s concern was to determine who was best suited for a career in science. To this end, he offered the students opportunities to assist with various tasks, like taking blood samples from the turtles. These invitations served two purposes. First, they provided a means to determine who had the initiative required for a successful career in science. Second, they provided Peter with an opportunity to assess the abilities of the students. Not everyone can take a blood sample from a bog turtle successfully.

One of the key things I learned about the socialization of scientists is that, to a large degree, it is a selection process. Many students express interest in a career in science, but not all of them can sustain the interest or have the abilities to become a scientist. This vital stage in the socialization process, the first opportunity to work as a research assistant, plays a significant role in the sorting process.

Though the students I watched ranged greatly in their abilities and initiative all of them described the experience of working on Peter’s research project as transformative. A research opportunity such as this could play a vital part of undergraduate science education. Students get immersed in science in a way that the classroom experience, even with the lab component, fails to accomplish. For example, students expressed a real appreciation for the journal literature. As a result, they came to understand that the journal literature is a resource that can aid them in solving problems they encounter as they are researching.

Peter was very open with me about his research. One of the things I was struck by was the fact that over the years he has collected vast quantities of data about a variety of species of turtles. Much of that data remains largely unprocessed. In this I see a great opportunity for another intensive learning experience for students of science, one that would further aid in the selection process of determining which of our students has what it takes to make a career in science. During the fall and spring terms, when the traps are not in the field, Peter could run a seminar course that focuses on data processing. Advanced undergraduates could design research projects that could be effectively addressed using the vast store of data that Peter has gathered. Form example, different techniques could be employed to estimate the population of various species of turtles at the various sites he has been studying and caring for. Students would learn both how to articulate a question that can be answered effectively, as well as how to use data to get an answer to an interesting question.

SMALL GRANTS PROGRAM RESEARCH, EDUCATION AND PUBLIC SERVICE PROJECTS

Rice Creek Associates (RCA) Small Grants Program is intended to support and encourage research 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

The next round of proposals will be due in March 2006. Awards will be announced in April 2006.

CONTENTS OF PROPOSALS:
Proposals should consist of a cover page, text, and vitae of the Principal Investigators. The text should include the following information:

(Continued on page 7)
Campus News—Student SCAC Awards

Graduate & Undergraduate Scholarly & Creative Activity Awards

This program is to support and foster graduate and undergraduate student scholarly and creative activities done in collaboration with a SUNY Oswego faculty or staff sponsor.

**Eligibility:** Graduate students formally accepted into a graduate program and undergraduate students in their freshman, sophomore, junior or senior years at SUNY Oswego may apply.

**Deadline:** Monday, November 14, 2005, 4:30 p.m. The link to the on-line application form will not be available after this time.

**Funds:** The maximum award will be $1,000. Funds may be used for supplies, stipends, software, equipment or other expenses directly related to the proposed scholarly and creative activity.

**Notes:** The on-line form can be found at [http://www.oswego.edu/administration/ORSP/](http://www.oswego.edu/administration/ORSP/). Click on “Campus Grants & Awards”, then “Students”, then “0506 Graduate & Undergraduate Scholarly & Creative Activity Awards”.

Students must secure a faculty sponsor and provide them with the Faculty Sponsor form which can be found with the application.

Any proposal that also meets the criteria for the Helen Bohmer Daly Memorial Research Grant, will also be considered under these criteria.

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Campus Grants Timeline

For information and application materials for campus grants, visit our web site [http://www.oswego.edu/administration/ORSP/index.html](http://www.oswego.edu/administration/ORSP/index.html) and look under Campus Grants & Awards.

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behavioral interventions designed to increase children’s physical activity and/or decrease the amount of time that children devote to sedentary activities, such as watching television or playing computer games. Such interventions might involve curriculum changes or curriculum changes coupled with periods of increased physical activity, either before, during or after school. Interventions also might be designed to induce and maintain long-term behavioral change regarding eating habits, food choices, exercise habits, and lifestyle; evaluations of various controlled dietary interventions would also be responsive to this PA, for example, changes in school food service programs for school breakfast and/or school lunch. Intervention programs designed for parents who prepare their children’s lunches would also be responsive.

Understanding Mechanisms of Health Risk Behavior Change in Children and Adolescents (NICHD) [80160]
Deadline: 02/01/06, 06/01/06, 10/01/06, 02/01/07
Scope: The sponsors offer support for research that will enhance understanding of the factors and mechanisms that determine changes in health risk behaviors during childhood and adolescence.

Funds: This PA will use the NIH Research Project Grant (R01) and Exploratory/Developmental Grant (R21) award mechanisms. For the R21 award, the applicant may request a project period of up to two years with a combined budget for direct costs of up $275,000 for the two-year period. For example, the applicant may request $100,000 in the first year and $175,000 in the second year. The request should be tailored to the needs of the project. Normally, no more than $200,000 may be requested in any single year.

Objective(s): The concept of health risk behavior change is used in this program announcement to encompass the evolution of specific health impairing behaviors. Of particular interest are factors and processes that influence the initiation, continuation, and/or cessation of one or more of the following health risk behaviors: substance abuse; inadequate exercise and poor dietary practices as they relate to being overweight or obese; and intentional and unintentional injuries. The goal of this PA is to promote optimal physical and mental health in children and adolescents. This may be accomplished by research to enhance our understanding of the origin, evolution, and termination of health risk behaviors and, ultimately, by the development of effective prevention and intervention strategies designed to maintain healthy behaviors and prevent health risk behaviors. Interdisciplinary research is sought to explore the biological, genetic, physiological, psychological, and social/environmental factors and mechanisms that influence health risk behavior change in children and adolescents. A better understanding of theory-driven, causal pathways and recognition of mediators and moderators will aid in the identification of the etiology of health risk behaviors, precursors of health risk behaviors, and associated risk and resilience factors. The research findings will have the potential to inform the development of more comprehensive and effective prevention and intervention strategies in the fields of substance abuse, obesity, and injuries. Studies of interest may be observational, epidemiological, intervention, secondary data analyses (i.e., analysis of existing data), and cost/benefit analyses. A multidisciplinary approach is encouraged and research findings from fields such as developmental pediatrics, psychology, behavioral science, neuroscience, neuropsychology, business, education, public policy, and others will be considered. Focus areas of interest to the sponsors are: biological influences; psychological influences; contextual influences; and co-occurring health behaviors.

HUMANITIES

Faculty Humanities Workshops (NEH)
Deadline: 04/07/06
Scope: Grants for Faculty Humanities Workshops support local and regional professional development programs for K-12 teachers and faculty at post-secondary institutions.

Objective(s): Workshops should: extend and deepen knowledge of the humanities by fostering collaborative study of significant topics, texts, and issues; provide faculty with the opportunity to engage in rigorous intellectual inquiry, including reading, reflection, and discussion; involve scholars from outside the institution(s) who are experts on the topic of the workshop; use creative formats and programs to engage faculty members; and advance the study and teaching of the humanities at the participating institution(s).

We the People Challenge Grants in United States History, Institutions and Culture (NEH) [77193]
Deadline: 02/01/06
Scope: Support is provided for challenge grants designed to help institutions and organizations secure long-term improvements in and support for humanities activities focused on exploring significant themes and events in American history. The sponsor is particularly interested in projects that advance knowledge of the founding principles of the United States in their full historical and institutional context.

Funds: The requested grant amount should be appropriate to the humanities needs and the fund-raising capacity of the institution. The federal portions of We the People challenge grants will likely range between $300,000 and $1 million.

Objective(s): As part of its We the People initiative, the sponsor invites proposals for challenge grants designed to help institutions and organizations secure long-term improvements in and support for humanities activities focused on exploring significant themes and events in American history. The sponsor is particularly interested in projects that advance knowledge of the founding principles of the United States in their full historical and institutional context.

Physical Anthropology (NSF) [61319]
Deadline: 12/03/05
Scope: Support is provided to universities and colleges, nonprofit, non-academic organizations, for-profit organizations, state and local governments, and unaffiliated individuals for research in physical anthropology.

Objective(s): The sponsor supports basic research in areas related to human evolution and contemporary human biological variation. Research areas supported by the program include, but are not limited to, human genetic variation, human adaptation, human osteology and bone biology, human and nonhuman primate paleontology, functional anatomy, and primate socioculture. Grants supported in these areas are united by an underlying evolutionary framework, and often a consideration of adaptation as a central theoretical theme. Many proposals also have a biocultural orientation.

National Leadership Grants for Museums [05837]
Deadline: 02/01/06
Scope: The sponsor's National Leadership Grant program supports three funding categories for museums. The museum priorities
Rice Creek Associates Small Grants Program (Continued from page 4)

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.

Objectives: Clearly and succinctly state what will be accomplished.

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

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

Personnel: Describe the role of study participants.

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

Literature Cited in Proposal:

Itemized Budget: The budget should include:

Amount requested from RCA.

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

Visit the Rice Creek Field Station web site
http://www.oswego.edu/other_campus/rcreek/

“*The best way to predict the future is to invent it.”* Alan Kay

Eye on Funding (Continued from page 6)

of the National Leadership Grants encourage individuals to attain the knowledge, skills, attitudes, behaviors, and resources that enhance their engagement in community, work, family, and society. Projects should enable libraries and museums to address current problems in creative ways, develop and test innovative solutions, and expand the boundaries within which cultural heritage institutions operate. The results of these projects will help equip tomorrow’s libraries and museums to better meet the needs of a Nation of Learners.

**Funds:** Amount of grants are $25,000 to $1 million. The grant period is up to three years. Matching requirements are one-to-one for requests over $250,000. Cost-sharing of at least one-third is encouraged for requests under $250,000.

**Objectives:** All types of museums, large and small, are eligible for funding. Eligible museums include aquariums, arboreta and botanical gardens, art museums, youth museums, general museums, historic houses and sites, history museums, nature centers, natural history and anthropology museums, planetariums, science and technology centers, specialized museums and zoological parks. Federally operated and for-profit museums may not apply for IMLS funds. An eligible museum must: be organized as a public or private nonprofit institution that exists on a permanent basis for essentially educational or aesthetic purposes; care for and own or use tangible objects, whether animate or inanimate, and exhibit these objects on a regular basis through facilities that it owns or operates; have at least one professional staff member or the full-time equivalent, whether paid or unpaid, whose primary responsibility is the acquisition, care, or exhibition to the public of objects owned or used by the museum; be open and providing museum services to the general public (an institution which exhibits objects to the general public for at least 120 days a year fulfills this requirement); be open and have provided museum services to the general public on a regular basis for at least two full years prior to the date of application; and be located in one of the fifty United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Com-
monwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, or the Republic of Palau.

Private nonprofit museum services organizations or associations that engage in activities designed to advance the well-being of museums and the museum profession also may apply. In addition, institutions of higher education, including public and not-for-profit universities, are eligible.

INTERDISCIPLINARY

Neotropical Migratory Bird Conservation (DOL) [2939]
Deadline: 12/01/05
Scope: The Interior Department invites applications for matching grants to fund projects that promote conservation of neotropical birds in the United States, Latin America and the Caribbean.
Funds: $4 million for 40 awards of $5,000 to $250,000 each.
Areas: Proposals should demonstrate how a conservation partnership’s activities will foster sustainable programs to protect and manage neotropical migratory bird populations through such activities as maintenance, management, protection and restoration of habitats; research and monitoring; law enforcement and community outreach and education.

Disabilities Research (NSF) [2939]
Deadline: Jan. 16 for letters of intent that are optional but encouraged for all program tracks; demonstration, enrichment and information dissemination (RDE-DEI); focused-research initiatives (RDE-FRI); regional alliances for persons with disabilities (RDE-RAD); and Feb. 13 for all final proposals.
Scope: The National Science Foundation seeks proposals for basic and applied research and other projects focused on increasing the participation and achievement of persons with disabilities in science, technology, engineering and mathematics.
Funds: $4.4 million for awards of up to $100,000 each for one year for RDE-DEI standard grants; up to $300,000 each for three years for RDE-FRI continuation grants; and up to $3 million each for five years for RDE-RAD cooperative agreements.
Areas: The program funds basic and applied research and other activities that promise to: effect changes in academic and professional climates; develop awareness and recognition of needs and capabilities of students with disabilities; promote accessibility and appropriateness of instruction materials, media and educational technologies; and increase availability of enrichment resources, including mentoring activities. Activities include hands-on science experience in precollege science education settings, identification and nurturing of interest in science among K-12 students; design of inclusive laboratories; and use of programs that bridge academic levels. Regional alliance projects emphasize networks of universities, colleges, industry and others to implement comprehensive, multi-component, multidisciplinary programs. NSF encourages inclusion of academic partnerships that link two- and four-year institutions and pre-college education entities.

Morton Salt [83636]
Deadline: Open
Scope: The sponsor provides funding to non-profit, tax-exempt organizations in the areas of Education; Environment; Civic and Community; Health and Human Services; and Arts and Culture.
Objective(s): Grants are made in the following areas:
Education: K-12th grade math education or business courses relating to: entrepreneurship, capitalism and/or marketing; mentoring programs linking education to workplace and career opportunities; after school programs for children and teens; programs and activities at times when school is not in session including after-school hours, weekends and/or summer break. Initiatives can span one or more of the giving categories of education, arts and culture, environment, civic and health and human services and include: youth development such as leadership training educational enrichment, particularly in the areas of math or business.
Environment: After school programs that build environmental awareness; sustainable development programs that educate and promote development that meets the needs of the present society without compromising the ability of future generations to meet their own needs. Morton Salt seeks proposals within this focus area that will educate and inform youth and their families about: pollution prevention, environmental conservation, and eco-efficiencies.
Civic and Community: Regional efforts that build local competitiveness and strengthen the economic and social base; programs that build relationships with key stakeholders in Morton Salt communities; programs that focus on volunteerism.
Health and Human Services: Safety Awareness and implementation; national programs that can demonstrate that funding will support projects that directly benefit a Morton Salt community; food and nutrition focused programs.
Arts and Culture: after school programs.

Americana Foundation [83763]
Deadline: 01/10/06, 04/10/06
Scope: The sponsor focuses on two program areas of protection, preservation and education.
Objective(s): American Heritage--the sponsor supports projects and programs that educate and advocate for the preservation of this diverse American heritage and that preserve, conserve and present this material culture in a manner that will help all people discover, understand and appreciate this American heritage. The sponsor will support: programs and restoration projects that exhibit classic material artifacts and provide information on the common values of freedom for the individual, and the creative pioneer spirit which fostered the innovation and industriousness that built the nation; the production of publications, exhibits, electronic and film based media and symposia that contribute to a better understanding of Americana and American heritage; and the acquisition and preservation of high quality, class examples of American furniture and the decorative arts.
Agriculture and Natural Resources--the sponsor will consider requests for projects containing one or more of the following: the maintenance of historical buildings and grounds at the Tollgate Farm and support for agricultural education programs conducted on this site; education and advocacy for the protection of agriculture, open spaces, and natural resources; basic education and information in regard to tools for managing growth and preventing sprawl through integrated planning and zoning; and partnerships of environmental and agricultural organizations with other stakeholder groups working to protect agriculture, open spaces and natural resources.

Gimbel (Bernard F. and Alva B.) Foundation, Inc. [67894]
Deadline: The sponsor strongly recommends that prospective applicants submit a letter of inquiry. Grant applications are con-
sidered in December and June. Deadlines for new proposals are the first Wednesday in August for December grants and the second Wednesday in January for June grants.

Scope: The sponsor makes grants in the areas of education, workforce and economic development, civil legal services, criminal justice, and reproductive rights.

Funds: In 2004, the Foundation made 110 grants totaling $3,802,650.

Course and Program Grants (NCIIA) [59104]
Deadline: 12/02/05, 05/12/06
Scope: The sponsor provides funding for the purpose of strengthening existing programs or building new programs in invention, innovation, and entrepreneurship. Successful proposals present creative pedagogical approaches that generate and deploy E-Teams, bringing real-life applications into the classroom setting and beyond.

Funds: Grants range from $2,000 to $50,000, for periods of one to three years. Grant funds may be used for supplies, equipment, or expenses related to project development in the initial stages of E-Team projects. Faculty stipends can be up to $5,000.

Objective(s): The sponsor favors proposals for courses and programs which: introduce curricula that incorporate affordable design, social entrepreneurship, and other approaches that meet basic human needs and environmental issues; stimulate the formation of E-Teams and promote the E-Team learning experience; encourage E-Teams to generate new technologies and businesses to meet basic human needs and address environmental issues, creating economically self-sustaining business and non-profit models; generate balanced teams or curricula that are multidisciplinary, involving students and advisors from technical, business, and humanities disciplines, as well as groups traditionally underrepresented in invention, innovation, and entrepreneurship, including women and minorities; create opportunities for high quality group learning experiences; move beyond academic exercises to real-life business interaction, and create viable collaborative opportunities for participants from both academe and industry; demonstrate an institutional commitment to and plan for supporting the proposed course or program on an ongoing basis beyond the grant period; show access to necessary resources from the institution (e.g., computers, work space, lab equipment); and demonstrate the commitment of the institution and faculty members to support the efforts of E-Teams that wish to continue their work after the course ends.

Science and Ecology of Early Development (NICHD) [56602]
Deadline: 02/01/06, 06/01/06, 10/01/06, 02/01/07, 06/01/07, 10/01/07
Scope: The sponsor provides support for the development of a comprehensive program of research focused on the mechanisms through which social, economic, cultural, and community-level factors, and their interactions, impact the early cognitive, neurobiological, socio-emotional, and physical development of children. The Research Project Grant (R01) and Small Grant (R03) award mechanisms will be used.

Funds: The mechanism of support will be the National Institutes of Health (NIH) Research Project Grant (R01) and the Small Grant (R-03) award mechanisms.

Objective(s): The sponsor's Demographic and Behavioral Sciences Branch (DBSB) and Child Development and Behavior Branch (CDBB) of the National Institute on Drug Abuse (NIDA) invite research grant applications that seek to develop a comprehensive program of research focused on the mechanisms through which social, economic, cultural, and community-level factors, and their interactions, impact the early cognitive, neurobiological, socio-emotional, and physical development of children. Specifically, this initiative encourages research that: is multidisciplinary or interdisciplinary; uses existing sources of data and/or justifies new data collection efforts; uses longitudinal, experimental, or comparative designs; and has relevance for public policy, particularly in the areas of childcare, early childhood and primary/secondary education, welfare reform, tax reform, social services, and family/work policies. Populations of interest include diverse children of all ages, with a focus on understanding how the ecological context in which children in poverty grow up influences early development in the short term, or long-term trajectories stemming from early development. Outcomes of interest include cognitive, socio-emotional (e.g., temperament, behavior, character development, interpersonal relations), and physical development and trajectories. This PA is intended to support investigations that examine the processes underlying relationships between living in poverty and child outcomes. An understanding of the relevant pathways and mechanisms will lead to improvements in interventions aiming to reduce the risks associated with poverty and promote positive developmental outcomes for children in disadvantaged contexts.

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Geophysics (NSF) [61287]
Deadline: 12/01/05
Scope: This program supports basic research in the physics of the solid earth to explore its composition, structure, and processes.

Objective(s): The sponsor supports basic research in the physics of the solid earth to explore its composition, structure, and processes. Laboratory, field, theoretical, and computational studies are supported. Topics include seismicity, seismic wave propagation, and the nature and occurrence of earthquakes; the earth's magnetic, gravity, and electrical fields; the earth's thermal structure; and geodynamics. Supported research also includes geophysical studies of active deformation, including GPS-based geodesy, and studies of the properties and behavior of earth materials in support of geophysical observation and theory.

Tectonics (NSF) [61272]
Deadline: 12/01/05
Scope: This program supports a broad range of field, laboratory, computational, and theoretical investigations aimed at understanding the evolution and deformation of continental lithosphere and how deformational processes have modified the lithosphere through geologic time.

Objective(s): This program supports a broad range of field, laboratory, computational, and theoretical investigations aimed at understanding the evolution and deformation of continental lithosphere and how deformational processes have modified the lithosphere through geologic time. Because understanding such large-scale phenomena commonly requires a variety of expertise and methods, this program supports integrated research involving the disciplines of structural geology, petrology, geochronology, sedimentology, stratigraphy, geomorphology, rock mechanics, paleomagnetics, geodesy, and other geophysical techniques. Proposals to elucidate the processes that act on the lithosphere at various times-scales, either at depth or the surface, are encour-
An Eye on Funding (Continued from page 9)

Biotechnology Research Training Program (NIH) [80016]
Deadline: 01/10/06
Scope: The sponsor offers support for pre-doctoral research training programs in biotechnology. These university-based programs emphasize the application of biotechnology to research problems of biomedical relevance and produce investigators with the facility and orientation to combine basic and applied research.

Funds: The grant may provide up to five years of support, although the duration varies and is typically two years. Biotechnology research training grant funds are intended to support: stipends; partial coverage of tuition, fees, and health insurance; and modest sums for travel to scientific meetings, equipment, and supplies.

Objective(s): The purpose of this program is to produce broadly-trained investigators who have the facility and orientation to combine basic and applied research. The training supported by these grants provides pre-doctoral students substantial technical and intellectual skills in fields of research which centrally utilize biotechnology (molecular biology, biochemical engineering and bioprocessing, tissue engineering, biomaterials, metabolic engineering, biochemistry, separation technology, drug delivery, nanobiotechnology, etc.). At the heart of this training is the in-depth dissertation research and course work of a Ph.D. program, but the trainees are also expected to acquire significant exposure to the concepts and experimental approaches of some related research areas. Thus, the training is interdisciplinary and usually interdepartmental.

Science and Engineering Information Integration and Informatics (NSF) [77631]
Deadline: 12/15/05
Scope: This program focuses on advancing the state of the art in the application of advanced information technology to science and engineering problems in specific domains, such as astronomy, biology, the geosciences, public health and health care delivery.

Funds: It is anticipated that $14.5 million will be available to fund twenty-five to thirty projects.

Objective(s): The goal of this program is to focus information technology research on addressing problems that will enable scientific discovery via analysis of large data sets or information resources. Specifically, this program encompasses two related components: (a) Science and Engineering Informatics (SEI); and (b) Information Integration (II). The SEI program has the following two objectives:

I: Stimulation of multi-disciplinary research in Science and Engineering Informatics (SEI) that addresses significant, real requirements of an application domain. Understanding of the requirements should be derived through collaboration with the domain scientists or engineers. An ideal project will have three key elements: a) a significant domain challenge; b) a significant computer science problem that is a barrier to achieving the domain challenge; and c) demonstrated expertise in these two aspects.

II: Information Integration (II) research that leads to a uniform interface to a multitude of heterogeneous, independently developed data sources. The goal is to free users from having to locate the data sources, interact with each data source in isolation, and manually combine data from multiple formats and multiple sources.

To develop, maintain, and enhance educational infrastructure, all proposals must include an educational component. Appropriately aligned with the research and education, promotion of knowledge transfer, reaching diverse populations and promoting diversity. Sample activities include: developing materials to integrate SEI into existing courses; providing access to science data, both raw and refined, to the general public; mentoring faculty of K-12 institutions; creating tutorial material to bring an understanding of the applicability of state-of-the-art information technology to specific scientific communities; and developing online resources for faculty and students.

Stewardship Science Academic Alliances Program (NNSA) [64029]
Deadline: 12/15/05
Scope: This program focuses on advancing the state of the art in the application of advanced information technology to science and engineering problems in specific domains, such as astronomy, biology, the geosciences, public health and health care delivery.

Funds: It is anticipated that $14.5 million will be available to fund twenty-five to thirty projects.

Objective(s): The goal of this program is to focus information technology research on addressing problems that will enable scientific discovery via analysis of large data sets or information resources. Specifically, this program encompasses two related components: (a) Science and Engineering Informatics (SEI); and (b) Information Integration (II). The SEI program has the following two objectives:

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Objective(s): The objectives of the program are to: grow the U.S. scientific community, through the funding of research projects at universities, in areas of fundamental science and technology relevant to stockpile stewardship, with a focus on those areas that have not been traditionally supported by other federal agencies and for which there is a recruiting need within the sponsor's laboratory complex; provide fundamental-science information and develop advanced experimental measurement techniques in selected areas of physical sciences: condensed matter physics and materials science; hydrodynamics; plasma and high-energy-density physics; fluid dynamics; and low-energy nuclear science; train scientists in specific areas of research relevant to stockpile stewardship; promote and sustain scientific interactions between the academic community and scientists at the sponsor's laboratories through exchange of personnel; increase the availability of unique experimental facilities sited at the sponsor's laboratories to the academic community, particularly for collaborations in areas of relevance to stockpile stewardship; and develop and maintain a long-term recruiting pipeline to the sponsor's laboratories by increasing the visibility of the sponsor's scientific activities to the U.S. faculty and student communities.

The sponsor solicits research proposals in the following areas of physical sciences: properties of materials under extreme conditions and hydrodynamics; high-energy density physics; and low-energy nuclear science. Consideration will be given to proposals that emphasize experimental efforts, although outstanding theoretical projects that have a strong connection to experimental efforts will be considered as well.

Cyber Trust (NSF) [63149]
Deadline: 02/06/06
Scope: The sponsor supports single and multiple-investigator projects within the broad range of disciplines contributing to the Cyber Trust vision, in which networked computers are: more predictable, more accountable, and less vulnerable to attack and abuse; developed, configured, operated and evaluated by a well-trained and diverse workforce; and used by a public educated in their secure and ethical operation.

Funds: Up to three center-scale awards, up to ten team awards,
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and up to thirty single investigator awards will be made. Single investigator awards last up to three years, average about $150,000 per year, and do not exceed $175,000 per year. Team awards last up to three years and do not exceed $750,000 per year. Center-scale awards range from $1 million to $2 million per year for five years.

Objective(s): Research is warranted in aspects of the entire system life cycle: development of security and privacy policies; definition of requirements; construction, validation and verification of components and systems; operation, monitoring, maintenance, and recovery after failures or incidents; and forensics, sanitization, and disposal. Research that spans the technical areas affecting integrated information technologies is strongly encouraged. This includes projects to advance or apply combinations of technologies to solve particularly challenging problems, to understand engineering trade-offs among competing or complementary technical approaches, and to explore synergies among technologies.

Education and workforce development sample activities include: developing materials to integrate trustworthiness considerations into existing courses; disseminating best practices and models to the general public; having graduate students mentor technical support staff of K-12 institutions; offering summer industry internships for faculty and students; developing online resources for faculty; and developing student competitions to encourage more trustworthy programming practices.

American Honda Foundation [09372]
Deadline: 02/01/06, 05/01/06
Scope: The sponsor provides grant support for projects in the areas of youth and scientific education.
Funds: Average grants range from $40,000 to $80,000 per year.
Objective(s): 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 youthfully engaging way; look to the future or foresightful solutions; 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.

Environmental Education Grants (EPA) [2840]
Deadline: 11/23/05
Scope: The Environmental Protection Agency invites proposals for education projects that enhance the public’s awareness, knowledge, and skills to make informed decisions that affect environmental quality and promote environmental stewardship.
Funds: $3 million for an estimated 150 grants generally ranging from $10,000 to $15,000 each.
Areas: Grants fund education programs that increase public awareness and knowledge about environmental issues and build skills to make informed decisions and take responsible action. Programs must be based on scientifically sound information and may not advocate a particular viewpoint or course of action. EPA will not consider proposals for information dissemination alone. The agency strongly encourages applicants to use existing environmental education materials rather than designing new materials.
Tip: Applicants have the best chance at funding by submitting modest requests (less than $10,000) to regional offices. EPA advises. A large share of the program’s funding is distributed regionally, due to congressional instructions to award small grants to local schools and organizations. Competition for larger, headquarters administered grants is especially intense. EPA usually receives 200 proposals and is able to fund less than 10 percent of these. The success rate for the regions averages about 30 percent.

Tropospheric Pollution and Surface UV (EPA) [2840]
Deadline: 01/11/06
Scope: The Environmental Protection Agency invites applications for research on the effect of tropospheric pollution—zone and particular matter—on surface ultraviolet radiation levels, which affect human health and the ecosystem.
Funds: $600,000 for two awards of up to $100,000 a year each for two or three years.
Areas: Proposals also may address other questions such as: what can be learned from historical surface UV monitoring data for modeling surface UV radiation and exposures; how do clouds and other meteorological conditions affect surface UV levels and exposures; how do surface UV observations compare to space-based measurements of UV; how changes in surface UV levels due to tropospheric pollution or meteorological conditions compare to changes in surface UV levels due to variations in stratospheric ozone concentrations; and how changes in surface UV levels due to tropospheric ozone compare to changes in surface UV due to particulate matter or other tropospheric pollutants.

Harmful Algal Blooms (EPA/NOAA/NASA/ONR) [2840]
Deadline: 01/10/06
Scope: The Environmental Protection Agency, the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration and the Office of Naval Research invite applications for research on harmful algal blooms.
Funds: $7 million to $10 million for targeted grants (solo investigations or small interdisciplinary studies) up to $150,000 a year each for three years. Multidisciplinary regional studies (large team enterprises that are multidisciplinary and multi-institutional that take an ecosystem approach) may range from three to five years at correspondingly appropriate budgets.
Areas: The blooms, which are caused by a diverse group of toxic and noxious organisms, have a significant impact on human health, the environment, marine-based economies and recreation in many areas of the United States and other countries. This initiative focuses research on algal species whose populations may cause or result in the most harmful effects. Major areas of emphasis are bloom ecology and dynamics; toxins and their effects; food webs and fisheries; and public health and socioeconomic impacts.

Computer Systems Research (NSF) [2840]
Deadline: 01/11/06
Scope: The National Science Foundation invites proposals for innovative research and education projects that will lead to significant improvements in existing computer systems, generate more efficient and reliable systems software and produce innovative curricula or educational materials that better prepare the next generation of computing professionals.
Funds: $27 million to $28 million for awards of up to $800,000 for two or three years.
Areas: Four topic areas are: embedded and hybrid systems; parallel and distributed...
operating systems; advanced execution systems; and systems modeling and analysis.

**High-Performance Computing Systems (NSF) [2939]**
**Deadline:** 02/10/06, 11/30/06
**Scope:** The National Science Foundation seeks proposals from organizations willing to acquire, deploy and operate high-performance computing systems to serve as resources for the science and engineering research and education community.

**Funds:** $30 million for one or two cooperative agreements in 2006. The project period is four years.

**Areas:** Proposers should: specify the HPC system to be acquired and deployed and detail any aspects of the system that are likely to influence the performance of science and engineering research; provide a detailed analysis of the performance of the proposed system on a benchmark suite representative of science and engineering applications, including actual results or estimated results for a set of benchmarks that will be posted on the NSF Web site on before Nov. 10. NSF plans to directly support several systems delivering sustained performance in the 30 to 100 teraflops magnitude across a range of research applications, and at least one system capable of approaching one petaflops of sustained performance.

**Emerging Computation Models (NSF) [2939]**
**Deadline:** 02/07/06
**Scope:** The National Science Foundation seeks research that will bring about fundamental changes to software, hardware and architectural design aspects of future computing models.

**Funds:** $16 million for: 35 to 45 awards for standard grants averaging $125,000 a year each for up to three years; and five awards for up to $500,000 a year each for well-integrated large-scale projects.

**Areas:** The program funds cross- and interdisciplinary research and education projects that chart new territory and advance computing capabilities or produce innovative curricula or educational materials for training. Interest areas include: computational biology (mathematical/stochastic modeling techniques for simulation and analysis of biosystems, for example); bioinformatics; and computational modeling (such as models inspired by small multi-cell organisms for better rendering of a small set of vital biological functions); quantum information science (for example, research to understand fundamental decoherence effects); and nanotechnology applications to computing and communication (work in nanoscale architectures and experimental system technologies at the small scale), for example.

**Computing Research for Math Sciences (NSF) [2939]**
**Deadline:** 01/06/06
**Scope:** The National Science Foundation seeks proposals for projects that will bring creative, scientific advances to design as it pertains to computer-based artifacts, especially software-intensive systems.

**Funds:** Up to $50,000 to $1.5 million each.

**Science of Design (NSF) [2939]**
**Deadline:** 01/06/06.
**Scope:** The National Science Foundation solicits proposals for projects that will bring new paradigms, concepts, approaches, models, and theories into the development of a strong intellectual foundation for software design, which will ultimately improve the processes of constructing and modifying software-intensive systems.

**Funds:** Up to $50,000 to $1.5 million each.

**Satellite Oceanography Research (DoC/NOAA) [2939]**
**Deadline:** 01/31/06
**Scope:** The Commerce Department’s National Oceanic and Atmospheric Administration invites proposals for research and other activities to expand the use of satellite oceanographic data.

**Funds:** $375,000 for four awards ranging from $25,000 to $250,000 each.

**Areas:** Applications must address program priorities: z Research leading to the development of improved atmospheric correction of satellite ocean color imagery in turbid coastal waters.
- Research on the use of satellite passive microwave polarimetric data to improve or develop new sea ice detection and classification algorithms.
- Research on the characterization of the measurement properties associated with ocean surface vector wind measurements from current or future satellite sensors.
- Research on ocean/lake parameter measurement algorithms.

**Clinical/Translational Planning Grants (NIH) [2941]**
**Deadline:** 02/07/06 for letters of intent; 03/27/06 for applications.
**Scope:** The National Institutes of Health invites planning grants under a new initiative to create an academic home—center, department, institute—for activities designed to reengineer the clinical and translational research enterprise.

**Funds:** $115 million in 2006 for 50 planning grants.

**Clinical/Translational Science Award (NIH) [2941]**
**Deadline:** 02/07/06 for notice; 03/27/06 for proposals.
**Scope:** The National Institutes of Health seeks visionary institutional projects to create an infrastructure environment for developing and nurturing of new clinical and translational research activities.

**Funds:** $30 million in 2006 for up to seven awards of up to $6 million a year each in total costs.

**Areas:** Institutions may design the environment, but NIH suggests these functional building blocks: development of novel clinical and translational methods; pilot and
An Eye on Funding (Continued from page 12)

collaborative translational and clinical studies; biomedical informatics; design, biostatistics and clinical research ethics; regulatory knowledge and support; participant and clinical interactions resources; community engagement; translational technologies and resources; and education, training and career development.

Systematic Biology and Biodiversity Inventories Cluster (NSF) [70415]
Deadline: 01/09/06, 07/09/06
Scope: The sponsor supports the general science of systematics, whose three main missions are: to discover, describe, and inventory global species diversity; to analyze and synthesize the information derived from this global discovery effort into predictive classification systems that reflect the history of life; and to organize the information derived from this global program in efficiently retrievable forms that best meet the needs of science and society.

Scope: Funding is provided under the following focus areas: Systematic Biology: Supports the scientific study of biological species diversity, and encompasses taxonomy, classification, and phylogenetics, for all groups of organisms and for all habitats (i.e., focusing on species inventory and discovery, including biogeographic or evolutionary hypothesis testing). Activities include the discovery and description of species, the organization of taxonomic information into hierarchical predictive classifications associated with efficient, reliable identification keys, and the analysis of evolutionary relationships among groups of species and across the tree of life.

Biodiversity Surveys and Inventories: Supports expeditionary work to discover, describe, and document plant, animal, and microbial diversity throughout the world, whether terrestrial, freshwater, or marine, and with emphasis on well-vouchered natural history collections, or stocks and cultures including associated databases. Supported surveys may be primarily area-based (i.e., focusing on species inventory and discovery, including biogeographic or evolutionary hypothesis testing), clade-based (i.e., continental-scale to global species inventory for a particular taxonomic group), or guild-based (i.e., surveys that couple species inventory and discovery with ecological hypothesis testing).

Program for Research and Education with Small Telescopes (NSF) [78647]
Deadline: 01/20/06
Scope: The sponsor provides funding and modest operational support for modern, instrumented telescopes in the range of 0.5 to 2.5 meters aperture to organizations or consortia presenting an integrated program of research, student training, and educational programming. It is anticipated that $1.2 million (four to eight awards) will be available.

Funding: Eligible projects include the following: acquisition of telescopes or necessary facility infrastructure, such as domes; instrumentation for new or existing telescopes; and refurbishment, improvements or enhancements of existing telescopes, instrument systems, telescope operations systems or other improvements that increase the telescope and instrument capabilities, including enhanced ease of visitor use. While the primary intent of this activity is to provide funds for facilities, the sponsor recognizes that many organizations or consortia may be unable to secure immediate funding for the full operational costs for such facilities. As a result, proposers may also request support for up to $50,000 per year in operating costs for facilities being constructed or enhanced through this program.

Objective(s): This program will provide funding and modest operational support for modern, instrumented telescopes in the range of 0.5 to 2.5 meters aperture to organizations or consortia presenting an integrated program of research, student training, and educational programming.

Radiation Belt Storm Probes Investigations and Geospace-Related Missions of Opportunity (NASA) [84885]
Deadline: 11/22/05
Scope: The sponsor will support an opportunity to conduct space science investigations through the Radiation Belt Storm Probes (RBSP) mission, which is part of the Living with a Star (LWS) Geospace Program. In particular, the opportunity is to provide understanding, ideally to the point of predictability, of how populations of relativistic electrons and ions in space are formed or changed in response to the variable inputs of energy from the Sun.

Objective(s): Of special interest are the controlling mechanisms of particle and field variations responsible for energetic particle acceleration, transport, and loss processes. Proposed investigations must provide identical pairs of individual instruments or identical pairs of suites of instruments. This program also invites proposals for Missions of Opportunity that effectively fulfill LWS Geospace specific objectives through an investigation that is carried on a mission sponsored by an organization other than the sponsor's Science Mission Directorate.

National Research Initiative (USDA) [2942]
Deadline: Deadlines vary by program and topic, starting Nov. 30 and running until Oct. 31, 2006.
Scope: The Agriculture Department invites applications under its sweeping National Research Initiative Competitive Grants Program, which funds a variety of research, education and infrastructure activities across a broad array of topics.

Tip: USDA will require use of the new standardized research and related forms package for two other program competitions slated to use Grants.gov, however. Like other agencies, USDA advises organizations to register with Grants.gov in the event they may wish to apply under competitions that require submission by way of the central site.

Funds: Estimated $180 million for 2006, pending congressional appropriations which are still up in the air. Individual awards range from $5,000 to $1.5 million a year each for periods up to four years.

Areas: This year’s announcement includes 32 programs within different clusters: agricultural genomics; agricultural biosecurity; agricultural production and value-added processing; nutrition, obesity, food safety and quality; and agroecosystems. Within these clusters, topics range widely, providing funding for prospective applicants from different types of institutions, disciplines and perspectives. Grant types include fellowships, conference, equipment, research, new investigator, integrated project, seed, bridge, and institution strengthening and research enhancement grants.

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 interpret 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.

**ORSP Contact Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thomas Darvill</td>
<td>Interim Director</td>
<td><a href="mailto:Darvill@oswego.edu">Darvill@oswego.edu</a></td>
<td>(315)312-3457</td>
</tr>
<tr>
<td>Maria Nakamura</td>
<td>Associate Director</td>
<td><a href="mailto:Nakamura@oswego.edu">Nakamura@oswego.edu</a></td>
<td>(315)312-2884</td>
</tr>
<tr>
<td>Linda Cook</td>
<td>Administrative Assistant</td>
<td><a href="mailto:Lcook@oswego.edu">Lcook@oswego.edu</a></td>
<td>(315)312-2561</td>
</tr>
<tr>
<td>Michele Frazier</td>
<td>Staff Associate</td>
<td><a href="mailto:Mfrazier@oswego.edu">Mfrazier@oswego.edu</a></td>
<td>(315)312-2886</td>
</tr>
<tr>
<td>Lorie Smith</td>
<td>Secretary 1</td>
<td><a href="mailto:Lsmith7@oswego.edu">Lsmith7@oswego.edu</a></td>
<td>(315)312-2888</td>
</tr>
</tbody>
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