

SURE AWARDS MADE FOR SUMMER '98

Sixteen Stonehill students will work with ten faculty members on a variety of research projects over the coming summer of 1998. The scholars and their faculty mentors are the third group to work under the Stonehill Undergraduate Research Experience (SURE) program, whose purpose is to provide students with an opportunity to perform significant, publishable research under the guidance of an experienced faculty researcher. The research experience will help to provide students with a competitive advantage in graduate and professional school applications and in post-college employment opportunities, as well as to provide assistance to faculty in research activities.

Mara Gladstone '99 will work with **Craig A. Almeida**, Assistant Professor of Biology, on "Characterization of Targeted Gene Replacement." Gladstone, a Biology/Spanish major, will perform specific research activities as part of Professor Almeida's ongoing project to develop a gene replacement technique in the microscopic soil nematode *Caenorhabditis elegans*. The technique ultimately can be used as a major tool by other *C. elegans* researchers in their efforts to elucidate gene function, with the goal of understanding the molecular basis of genetically inherited diseases and the potential development of treatment strategies.

David Perry '99 will work with **Carole G. Calo**, Associate Professor of Art History, on the revision of the current anthology *Writings About Art*, edited by Professor Calo (Prentice Hall, 1994) for a second edition to be published in 1998. Extensive revision will be necessary, and Perry, an interdisciplinary major in Fine Arts, will assist Professor Calo in determining new topics to be included, engage in extensive research to locate relevant essays for consideration, collaborate in deciding upon those essays for inclusion, help edit the articles, help choose illustrations, and handle copyright request details.

Karen DiMarco '01 will work with **Maria A. Curtin**, Associate Professor of Chemistry, on "The Study of Deterioration of Stone Sculptures by Scanning Electron Microscopy." DiMarco, a Chemistry major with an interest in a career in art conservation, will use Stonehill's recently acquired Scanning Electron Microscope in a study of stone decay by developing a method of casting and creating a negative of the stone surface. Although Scanning Electron Microscopy (SEM) is one of the methods used to study stone sculptures and structures, a study of stone decay has not been done using SEM; the project's findings will be of interest to the fields of environmental research and art conservation.

Matt Barth '99, Jenifer Gilbert '99, Jessica Maheux '99, and Tamara Palka '99 will work with **Roger M. Denome**, Associate Professor of Biology, on several related projects. Barth, a Biology and Chemistry major, will work on "Genetic Variation in Massachusetts White-tailed Deer;" Gilbert, a Biology and Religious Studies major and Palka, a Biology major, will work on "Genetic Variation in Utah Mule Deer;" and Maheux, a Biology major, will work on "Genetic Variation in Maine White-tailed Deer." The projects are part of a larger study to examine population genetics and substructure in North American white-tailed and mule deer; and have been partially funded by the Ute Indian Tribal Council of Eastern Utah as part of its ongoing work to maintain and upgrade habitat and native species on tribal lands.

Lisa Brouillette '00, Andrew P. Koleros '00, and Suzanne Neylon '99 will work with **Louis J. Liotta**, Assistant Professor of Chemistry, on three projects: Brouillette, a Biology major, will work on the "Synthesis of 4'-Amino-Disaccharide Inhibitors of Pectate Lyase E;" Koleros, a Biology major, will work on the "Synthesis of a Keto-Disaccharide Inhibitor of Pectate Lyase E;" and Neylon, a Biology and Religious Studies major, will work on the "Asymmetric synthesis of Polyhydroxylated Pyrrolidines." These projects, part of Professor Liotta's ongoing research, may have eventual uses in agriculture and in medicine; they are funded by the Research Corporation and the Petroleum Research Fund of the American Chemical Society and are at the forefront of chemical research.

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Arlyssa A. Pouliot '99 and Kenneth Sicard '01 will work with **Robert B. Peabody**, Associate Professor of Biology, on his U. S. Department of Agriculture funded research "Genetic Mosaicism in

Armillaria gallica,” a study of the honey mushroom, a fungus responsible for disease in trees throughout the world. Preliminary data suggest that an unusual feature of the mushroom’s life cycle plays a significant role in its ability to attack plant hosts. Pouliot and Sicard, both Biology majors, will use molecular techniques to try to better understand the mushroom’s life cycle, to see how widespread this unusual feature might be.

Noelle Dulak '00 will work with **Raymond A. Pepin**, Professor of Economics, on the project “Lotus Domino/Notes Resources to Facilitate Faculty Production and Use of Web Sites at Stonehill College.” Dulak, a Economics and Computer Science major, will help to produce a user manual and templates that can be used by members of the Stonehill community, with special focus on the faculty, to produce Web sites using Lotus Domino/Notes. The project will research and document how faculty are using Web sites in general; acquire, adapt, and create a Domino/Notes templates library; and produce an on-line Domino/Notes manual that has the potential for distribution elsewhere.

Kimberly Meaney '99 will work with **Robert A. Rosenthal**, Professor of Economics, on “Evaluating the Impact of the National School-To-Work Opportunities Act.” Meaney, a Managerial Economics major, will work on all aspects of the project, an evaluation of a federal program implemented at the local and regional level by three organizations, under the auspices of the School-to-Work (STW) Opportunities Act. The project’s primary goal is the assessment of the overall impact of these STW efforts on the population being served, the region’s high school students. Funded by the Massachusetts Office of School-to-Work, the project will involve survey design, data collection and analysis, a paper highlighting the methodology and findings, and, ultimately, a conference presentation and possible publication.

Adam Hall '00 will work with **Leon Tilley**, Assistant Professor of Chemistry, on “Kinetic Studies of Trifluoromethyl Substituted Gamma Silyl Carbocations.” Hall, a Biology major, will continue work begun in the summer of 1997 and continued throughout the academic year on the project, which will add to the overall body of knowledge relating to the mechanisms of organic reactions. The results of this work should allow synthetic organic chemists improved ability in controlling reaction conditions so as to achieve a desired product.

SURE Scholars will begin the program on May 26 for an eight or ten week period. They will engage in weekly meetings to discuss the progress of their projects and other topics of general interest, and will be paid a stipend for their full-time service. All SURE Scholars will present a summary of their summer’s work at an all-campus poster session in the early fall. Students and faculty members who wish to pursue a SURE research project for the summer of 1999 may contact the Office of Academic Development, Duffy 119-A, Ext. 1069, for further information. Deadline for applications for the summer of 1999 is December 15, 1998.