

## SURE AWARDS MADE FOR SUMMER '10

Fifty Stonehill College students will work with thirty-three faculty members on a variety of research projects over the coming summer of 2010. The scholars and their faculty mentors are the fifteenth 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.

**Kayla Mezzano '11** will work with **Elizabeth Belanger**, Assistant Professor of History and Director of American Studies, on the *Providence Reform School Digital History Project*. This project is a continuation of an ongoing investigation into the records of the Providence Reform School, 1850-1880. After years of building and transcribing an archive of materials from inmates, trial transcripts, trustee minutes and other resources, Stonehill College is partnering with the Rhode Island Historical Society and Brown University Graduate Program in American Civilization to bring these resources to the public in compelling and innovative ways. Mezzano, an Education and American Studies double major, will study existing digital history projects, conduct original research at the RIHS, and create an on-line exhibit for K-6 classrooms. The exhibit will utilize the archival collections of the Reform School, scholarly essays, K-12 curriculum materials and additional primary source materials. Kayla will present her research at the New England American Studies Association Annual Conference in September.

**Alicia Duffany '11** will work with **Margaret Boyd**, Assistant Professor of Sociology and Criminology, on a project titled *Understanding the Experience of High School*. This SURE project will continue data collection and analysis of a Community Based Learning (CBL) Project that began in September 2009 as part of Professor Boyd's Sociology of Education Seminar course. The CBL project was a research partnership with the Avon Public School District. They asked us to look for patterns and trends in data collected on their students that they did not have the time or resources to analyze. Qualitative interviews were also conducted with a sample of students to hear about their experiences of attending Avon public schools. As part of her SURE project Alicia will help in the completion of the final report for the Avon District School Committee. This includes completing all remaining interviews with the students in Avon; extending the literature review; data analysis of both the qualitative interviews and quantitative data provided and our final conclusions. It is anticipated that the final research study will result in a scholarly research article submitted to a peer-review Sociological and/or Educational journal and presented as a local or regional Sociological or Educational Conference in 2010.

**Alessia Di Censo '11** and **Brittany Kaminski '11** will work with **George Branigan**, Associate Professor in the Department of Education on *The Providence Reform School Project*. This project is a continuation of an ongoing investigation into the records of the Providence Reform School, 1850-1880. Alessia, a History major, and Brittany, a sociology/philosophy double major and Criminology minor, will assist Professor Branigan in examining a recently discovered volume of trustee minutes and letters from the office of the Mayor which relate to Reform School issues. Both documents will be transcribed and photographed. They will continue their activities at the judicial Archives to search for additional divorce records and extend their acquisition of arrest records beyond Providence County and across the full 30 years of the PRS's existence. In addition to the discovery and processing of new records they will collaborate with Professor Belanger on the *Providence Reform School Digital History Project*.

**Taylor Neugent '12** will work with **Linzy Brekke-Aloise**, Assistant Professor of History, on a project titled *Quantifying U.S. Consumer Culture 1780-1830: Wardrobe Accumulation as Recorded in Probate Inventories*. Neugent, History and American Studies major, will focus on testing historical hypotheses by analyzing historic quantitative data, in order to map out patterns of textile and clothing consumption from 1783-1845. This research will result in a conference paper that will be presented at the Society for Historians of the Early Republic in 2012, as well as become a chapter in a book-length project, *Fashioning America: Dress, Consumer Culture, and the Body Politic*.

**Wyatt Donnelly-Landolt '11** will work with **Lincoln Craton**, Associate Professor of Psychology, on a project titled *Harmonic Expectancies*. Wyatt, a Psychology and Religious Studies double major, will work on determining whether college-aged listeners without musical training possess an implicit, abstract knowledge of rock harmony. They will conduct music perception experiments that will allow them to characterize this knowledge in terms of specific harmonic expectancies. Their results will be submitted for presentation at the biannual SMPC (Society for Music Perception Conference).

**Lyssandra Ju '12** will work with **Maria Curtin**, Professor of Chemistry on a project titled *Chlorine Dioxide Production from Sodium Chlorite: Quantitative Analysis*. Ju, a Biochemistry major, will determine a quantitative method for the analysis of chlorine dioxide gas produced by different methods. She will study in detail three methods starting with a reaction of well-known stoichiometry to produce the chlorine dioxide. A poster will be presented at the 2011 Spring National ACS (American Chemical Society) meeting.

**Amy Orcutt '11** will work with **Maria Curtin**, Professor of Chemistry on a project titled *27Al NMR of Dilute Aqueous Aluminum Solutions*. Building off of a SURE 2008 project Orcutt, Chemistry major, will continue the investigation of dilute aqueous aluminum solutions as a function of pH using Al-27 NMR. Orcutt will study solutions of aluminum chloride of similar concentration as those the previous SURE student used for the aluminum nitrate solutions and repeat some of the nitrate studies. Orcutt's work will be combined with that of the previous SURE studies and will be submitted for publication in the Journal of Inorganic Chemistry. Additionally a Poster will be presented at the 2011 Spring National ACS (American Chemical Society) meeting.

**Marie Boyd '12** will work with **William Ewell**, Assistant Professor of Political Science, on a project titled *What State Balanced Budget Amendments have to Teach us about Federal Budgeting*. Boyd, criminology major, will examine variations amongst state-level actors in terms of balanced budget amendments, budget cycles, and spending controls to inform federal budgetary reform efforts. She will also analyze to what extent state budget restrictions effectively restrain state spending. Under the guidance of Professor Ewell and through her research she hopes to find an answer to the question "How can Congress construct institutions, and the resulting incentive structures, that make legislator's self interest consistent with the collective good?"

**Casey Gallagher '11** will work with **Richard Finnegan**, Professor of Political Science, on a project titled *Theories of Democratic Consolidation: The Case of Ireland 1919-1936*. What is clear about the development of Irish government, from the end of the Anglo-Irish war in 1922 to 1936, is that it emerged as a stable parliamentary democracy. However the explanations as to how stable democracy was established in Ireland are definitely not so clear. Gallagher, an international studies major, will examine the various arguments offered by scholars on the consolidation and stability of Irish democracy. She will in turn examine the literature on democratic consolidation, the historical record, and then draw conclusions on the theories and evidence. They expect that the research will be presented at either: the New England Meeting of the American Conference for Irish Studies or the New England Political Science Association meeting and a paper will be submitted by Ms. Gallagher to a student research journal or potentially as a co-authored piece to *Eire Ireland: A Journal of Irish Studies*.

**Nathaniel Bowditch '13** and **Patrick Kelleher '13** will be working with **Mevan Gunawardena**, Assistant Professor of Physics, on a project titled *The Study of Entangled States of Photons for Possible Application in Spectroscopy and Imaging*. The project aims to understand and control quantum coherences and entangled states in atomic, molecular or optical systems and investigate potential applications in spectroscopy and imaging. Bowditch, physics major, and Kelleher, undeclared science major, will use diode lasers at the 405 nm wavelengths to generate parametric down converted photons at 810 nm using a nonlinear crystal such as Lithium Triborate for this purpose.

**Holly Boyle '12** will work with **Marilena F. Hall**, Associate Professor of Chemistry on *Characterization of the Zinc Binding Reactivity of Phage-displayed Peptide*. Enzymes are the proteins that catalyze all the important reactions in biological systems. Understanding how an enzyme operates can provide useful information about how to best catalyze a given reaction and can be applied to the development of medicinal compounds as well as industrial catalysts. A good way to simulate a protein on a smaller scale is using a short chain of amino acids, called a peptide. Last summer Kelsey Hill examined and characterized sequences that had been identified as putative zinc-binders. She also began testing the zinc-peptide complexes to see if they could carry out a reaction on a substrate. This summer Holly, a biology major, will continue where Kelsey left off. Holly will study the relevant chemical literature and design methods for the determination of actual binding constants.

**Kieu Nguyen '12**, **Christina Martone '11**, and **Meghan Harley '12** will work with **Marilena F. Hall**, Associate Professor of Chemistry on two separate projects. Martone, a biology major, and Harley, a biochemistry major will be working on *Investigation of the Effect of Gene II Shine-Dalgarno Mutations on Protein Expression and Phage Propagation in M13 Bacteriophage* to continue the efforts of past SURE projects. Both students will develop a better assay to quantify levels of pII production by M13 phage, work on creating designed mutants, and construct a library of mutants to select additional fast-propagating ones. M13 is one of the most intensely studied bacteriophages and is often used as a model for gene expression. Nguyen will work on a project entitled *Identification and Characterization of Gene II Shine-Dalgarno Mutants in M13 Bacteriophage*. She will continue her work from last year as well as discover new mutants and compare the effect of mutations in natural M13 phage and M13KE phage.

**Kerri Socia '11, Anum Mir '12, and Katherine O'Toole '12** will work with **Magdalena James-Pederson**, Assistant Professor in Chemistry and Biology, on three related projects. The honey mushroom, *Armillaria gallica*, is a saprophytic fungi that can degrade wood and cause white rot on the infested wood. *A. gallica* is able to degrade the roots of trees because it produces a series of enzymes: laccases, xylanases, manganese peroxidases, and endoglucanases which can chemically break down the two major components in wood: hemicelluloses and lignin. Each student will focus primarily on one of the enzymes and the genes that code for that enzyme. O'Toole, a biochemistry major, will be working on the manganese peroxide enzymes in a project titled *Cloning and Sequence Analysis of Manganese Peroxidase Amplicons from Armillaria gallica*. Mir, a chemistry major, will be working on the endoglucanase enzymes in a project titled *Endoglucanases in Cultures of Armillaria gallica: DNA Sequence Analysis and Optimal Conditions for Expression*. Socia, also a biochemistry major will work on the Laccase enzymes, in a project titled *Cloning of Laccase Amplicons from Armillaria gallica and Optimal Growth Conditions for Enzyme Expression*. The results of all three projects will be presented at the 2011 New England Biological Conference.

**Jasmine Khubchandani '12, Nicole Leonard '11, and Lindsay Bock '12** will work with **Louis J. Liotta**, Professor of Chemistry, on three related projects. Carbohydrates are the most widely distributed naturally occurring organic compounds on earth. Over the last several years, SURE scholars in collaboration with Dr. Liotta have developed a means of efficiently converting commercially available sugars into polyhydroxylated pyrrolidines, and pyrrolizidines. Khubchandani, a biology major will be working on a project titled *The Synthesis, Purification and Characterization of a Vinyl Pyrrolidine from L-glucose and its Subsequent Conversion to a Polyhydroxy Pyrrolidine*. She will repeat the synthesis of the vinyl pyrrolidine starting from L-glucose that was originally developed by a 2004 SURE scholar. She will also convert this vinyl pyrrolidine into a trihydroxylated pyrrolidine. Leonard, biochemistry major and 2009 SURE scholar will be working on a project titled *The Synthesis of Pentahydroxylated Pyrrolizidines from Commercially Available Sugars*. She will continue her work from last year, collecting a full set of characterization data on every compound for which it had not been done and to improve the yields of those steps that gave low yields. She will also develop the synthesis of one of the key starting materials for the synthesis, since the compound can no longer be bought commercially, Nikky will have to synthesize these compounds before the overall synthesis can process. Bock, also a biology major, will be working on a project titled *Stereoselective Dihydroxylation of Pyrrolizidine Double Bonds*. There are many different method of converting a double bond in a compound to two hydroxyl groups. The methods used in the laboratory so far have not given the best yield of product. Lindsay will work to improve this conversion. Results of the research will be presented at the national meeting of the American Chemical Society and eventually published to the Journal of Organic Chemistry.

**Jessica Giammalvo '11** will work with **Alessandro Massarotti**, Assistant Professor of Physics on a project titled *Internal Properties, Thermal and Atmospheric Evolution of Super-Earths*. Recently the CoRoT mission and ground-based searches have identified several Earth-like planets orbiting other stars. Because of this mission there is a lot of interest in the properties of the so-called super-Earth and attempts have been made to model the interior of super-earths, in the assumption of steadily working plate tectonics. Massarotti and Giammalvo, physics major, will work towards refining and extending the results of previous work on super-earths by modeling the planets' evolution with age from their formation. They also plan on determining the approximate strength of the planetary magnetic field as a function of age for these planets and giving estimates of solar wind stripping as a function of planetary size, mass, age and distance to the parent star, assuming a solar-like type. In addition, Giammalvo will spend the 2010 spring semester learning how to use a computer program called Mathematica, so that as a SURE student she can work on extending the Mathematica code to evaluate planets with a mass Less than the Earth, all the way to planets with a mass as small as Mars. Learning Matematica is just one of the many invaluable educational benefits Giammalvo will derive from this research. She will also get the opportunity to conduct this research at the Harvard College Observatory at the Center for Astrophysics and collaborate with others undergraduates and Harvard Faculty working in these fields. The outcome(s) of this study is expected to be at least one or more published articles and a presentation or seminar at a conference.

**Mathew Coletti '11 and Carolyn Foisy '11** will work with **Andrew S. Mazurkie**, Assistant Professor of Biology, on a project titled *Expression and Purification of Smooth Muscle Signaling Proteins*. Biology majors, Coletti and Foisy will use established molecular biology and protein biochemistry techniques to isolate and purify several of the proteins suspected to play a role in the signaling pathway used by smooth muscle cells. Then they will characterize the isolated proteins and examine their interactions with each other using a combination of electrophoresis and spectroscopy techniques. Smooth muscle cells are located throughout the human body to regulate movement of materials through passages, such as air through respiratory bronchioles of the lungs and blood through arteries and veins. Many of these adjustments occur because of the inherent ability of the smooth muscle cell to respond to environmental changes. The signaling pathways that result in these cellular responses appear to be closely related to those that regulate gene expression, protein syntheses and cell function. Yet very little is known about the way the components of this signaling pathway interact and how these interactions relate to changes in cell

function. Since the change in smooth muscle cell function has been linked to several disease states an understanding of how they work could yield important clinical results.

**Katy Abarr '11, Robert Brennan '11, and Kristyn Sylvia '11** will work with **John G. McCoy**, Associate Professor of Psychology on three separate research projects pertaining to sleep. Each study will be carried out at the Brockton VAMC, located less than two miles from Stonehill. Abarr, a Neuroscience major, will focus his laboratory research on the elucidation of the role of certain brain regions in the regulation of sleep and wake, in a project titled *Regulation of REM sleep by Brainstem Mechanisms*. Silvia, Biology major, will investigate the neuronal activity of cortical neurons expressing beta-adrenergic receptors in response to chronic sleep restriction in hopes of understanding the mechanism by which beta-adrenergic receptors mediates sleep time and intensity. The project is titled *Response of Neuronal Receptors to Chronic Sleep Restriction*. Finally, Brennan, Neuroscience and Mathematics double major, will employ the Morris water maze task to examine the effects of sleep restriction on spatial memory. The project is titled *Chronic Sleep Restriction: Effects on Spatial Learning and Memory*.

**Michelle Jacques '11** will be working with **Kathy McNamara** and **Eunmi Yang**, both Assistant Professors of Education, on a project titled *Research in Science Education*. The project is broken into two parts. The first part focuses on entry and analysis of collected data about the pre-service teachers understanding of the Nature of Science. This part will result in a written paper that will be submitted for presentation at the National Association for Research in Science Teaching (NARST) annual conference. The second part focuses on the evaluation and development of differentiated science curriculum in collaboration with a local summer outdoor institution. This part will result in a written paper that will be submitted for presentation at the annual National Science Teacher Association (NSTA) conference.

**Alexandra Mielnicki '11 and Kelly Sparks '11** will work with **Monique Myers**, Associate Professor of Communication, on a project titled *Spiritual Communication and Identification Issues in the Wiccan Religion*. Mielnicki, a Communication major, and Sparks, a history major, will investigate the verbal and nonverbal signs and symbols that are used by members of Wicca to communicate. It is their goal to relate how these modern-day beliefs and practices relate to the historically negative perception of witches. Ultimately they hope to gain insight into how Wiccan identification is created, challenged, and maintained within and outside the religious community.

**Louis DeLuke '11 and Kathelrine Sullivan '12** will work with **Katie Nolin**, Assistant Professor of Biology and **Carey Medin**, Instructor of Biology, on a project titled *Transformation of *Armillaria gallica* with a Green Fluorescent Protein Expressing Plasmid*. This is a continuation of their summer 2009 project on which they worked with two students to develop a protocol for stable transformation of the honey mushroom with a plasmid containing the gene for a green fluorescent protein. Although they were able to obtain viable protoplasts from *Armillaria gallica*, the number obtained was too low for use in transformation. This summer DeLuke and Sullivan, both Biology majors, will work on optimizing the protocol to form viable *Armillaria gallica* protoplasts, in order to develop the transformation protocol for the honey mushroom and ultimately perform the transformation with a GFP expressing plasmid that is regulated by a fungal promoter.

**Gerald Espinosa '12, Sarah Dickerson '11 and Kimberly Henry '11** will work with **Anna Ohanyan**, Assistant Professor in the Political Science Department, on a project titled *On Money and Memory: The Prospects of Economic Regionalism as a Mechanism of Conflict Management*. In the post war era the number of inter-state conflicts decreased, but intra-state violence has spiked. The international community has largely failed to adopt systematic approaches for the management of post-war conflict that compromise both political as well as economic facets, revealing a gap both in relevant theory and practice. Ohanyan and her students all seek to address this need by investigating the use of economic regional international organizations in addressing intra- and inter-state conflicts in a given region. Dickerson, international studies and political science double major, is tasked with researching the literature of economic regionalism and conflict management; she will also build on a previous study by Ohanyan that focused on the politically divided Turkey-Armenia border region, to examine the role and potential of the Black Sea Economic Corporation organization in several frontline conflicts in the post soviet Black Sea region. Espinosa, political science major, is tasked with examining the role of the Regional Cooperation Council and its predecessor the Stability Pact for South Eastern Europe in the Balkans. Henry, philosophy major is tasked with investigating the case of South Asia and the South Asian Association for Regional Cooperation. Her case study will focus on several conflict lines: Afghanistan-Pakistan, internal violence in Afghanistan, and Pakistan-India. Both Henry and Espinosa are credited for developing the research format, theoretical framework, and the selection of the individual case studies for this project. Three papers are planned to be presented at the International Studies Annual Convention in 2011 to be held in Montreal, Canada and at the New England Political Science Association Conference in 2011. The papers will also be presented for review in academic and policy-oriented journals.

**Erica Mondo '11** will work with **Diane Peabody**, research professor, **Maura Tyrrell**, professor, and **Bob Peabody**, professor, all of the Biology department, on a project titled *Genetic Variation in Honey Mushrooms*. The honey-mushroom project has been supported by the National Science Foundation, the United States Department of Agriculture, and the Council on Undergraduate Research. During the Summers of 2004, 2006 and 2008 the project was supported by the SURE Program. Questions raised by reviewers of a manuscript based on these earlier SURE studies are the subject this year's project which seeks to determine whether patterns of genetic variation in vegetative and sexual stages of the honey-mushroom life cycle are similar in cultures maintained in the laboratory and in cultures recently collected in nature. Mondo, a Biology and Environmental studies major, will present her findings at the Eastern New England Biological Conference in April 2011.

**Brittany Daniels '12** and **James Doherty '12** will work with **Rob Rodgers**, Assistant Professor of Political Science, on a project titled *Community Preservation Funds in Massachusetts: Preserving the Community at What Cost?* This project stems from Professor Rodgers's previous research into the politics of New Jersey's Green Acres Program, the state's longstanding program to preserve land as open space. The purpose of this project is to examine whether the same politics of exclusion afflict Massachusetts. Doherty, a Political Science and Philosophy double major, will research the enactment of the Massachusetts Community Preservation Act (CPA) at the state level. Daniels, a Political Science and Philosophy double major, will research the adoption and use of Community Preservation Funds at the local level across the state. Finally Professor Rodgers will examine the role that the judiciary played, if any, in advancing the goals of the act. They intend to present their paper at a scholarly conference during the upcoming academic year and submit it for publication in either a law review or political science journal. They may also decide to communicate their findings directly to policymakers.

**Allyson Manchester '11** will work with **Ellen Scheible**, Assistant Professor of English, on a project titled *James Joyce and the Literary Archive*. Manchester, an English major, will explore how such a process incites questions about the nature of the literary archive in both of Joyce's longer novels, *Ulysses* and *Finnegan's Wake*. Ultimately the project will suggest that reading such novels is a generative process that typifies the interminable continuation of the discursive archive. For Scheible the work builds on a chapter from her book manuscript that she will be preparing for publication during the course of the program. They intend, over the course of the project, to produce a professional conference paper that will be presented at the 2010 James Joyce Conference and to expand that conference paper into their respective long term projects.

**Bailey Karr '11** will work with **Cheryl Schnitzer**, Associate Professor of Chemistry, on a project titled *Copper Chlorophyllin on Silver Colloids*. They will examine copper chlorophyllin (CuChl) molecules adsorbed onto silver colloids (CuChl/Ag) as a function of pH using both Raman scattering and visible extinction spectroscopy. Karr began the study of the CuChl/Ag system in a physical chemistry I course at Stonehill. With this project she will continue to build her understanding of this experiment by reading the literature, probing the system and ultimately choosing a few questions surrounding the topic to address experimentally. Karr will also have the responsibility of educating and training a high school SEED student on the project. Finally, Karr will be responsible for presenting the work at the National ACS meeting in Boston in the fall of 2010.

**Sarah Bolasvich '11** will work with **Gregory Shaw**, Professor of Religious Studies, on a project titled *Neurotheology and the Subtle Body in Western and Eastern Traditions*. This project aims to sketch out how neurobiology correlates to experiences of the subtle body as described by both Buddhists and Neoplatonists. Professor Shaw will continue his exploration of maps of the subtle body as described by Neoplatonists and include a comparison of these maps with those developed by Tibetan Buddhists. Sarah, a religious studies and Multi-disciplinary double major, will use her experiences abroad in Nepal this spring semester to bring a wealth of experience and knowledge to the questions being pursued by Professor Shaw. She will also draw from her current research on the relation between neurobiology and meditation and complete a lengthy paper over the course of the collaboration to be presented at a professional academic conference the following school year.

**Daniel R. Bouchard '12** and **Patrick A. Clark '12** will work with **Hsin-hao Su**, Assistant Professor Mathematics, on projects titled *The Edge-balance Index Set of the Centipede Graph* and *The Edge-balance Index Set of the Halin Graph of a Caterpillar Graph*. These are continuing projects from Professor Su's 2009 SURE project with Daniel Perry and Meghan Galliard's. While investigating several different combination L-product graphs, Daniel and Meghan successfully solved three of them and generated enough results to publish two papers. However, they did not have a chance to attack the others. Professor Su's projects this year are two of the untouched problems from last year. Bouchard, mathematics major, will be trying to determine the possible edge balance indexes of the L-Product graph of a centipede graph with a cycle graph. Clark, also mathematics major, will be trying to determine all the possible edge balance indexes of the Halin graph of a caterpillar graph with a spine length of 3. If these students can solve their problems they will write a joint paper with Professor Su that will be submitted to the 24<sup>th</sup> Midwest Conference on Combinatorics, Cryptography and Computing at Illinois State University in September 2010 or the

42<sup>nd</sup> Southeastern International Conference on Combinatorics, Graph Theory and Computing at Florida Atlantic University in March 2011. If accepted their papers will be published in the conference's peer-reviewed journal.

**Sean Corning '12** and **Jacqueline Genovese '12** will work with **Leon Tilley**, Associate Professor of Chemistry, on a project titled *Synthesis of Bicyclobutanes and Tetrahydrofuran: Strained Hydrocarbons as Potential High-energy Fuels*. Corning and Genovese, both Chemistry majors, will be refining a syntheses for several bicyclobutanes and developing a syntheses of potentially less stable tetrahydrofuran and trifluoromethyltetrahydrofuran. Syntheses of these would prove to be a novel accomplishment. From an applied view, these compounds could be used as high-energy fuels either for direct combustion or perhaps as a potential feedstock for fuel cells.

**Kamilia A. Drogosz '12** will work with **Erica Tucker**, Assistant Professor of Anthropology, Sociology, and Criminology, on a project titled *Exploring the Construction of Polish-American Identities*. They will use ethnographic research methods to explore how Polish-American individuals identify themselves in regard to their Polish heritage and how patterns of identification vary from one generation to the next. They are specifically interested in the experiences of Polish immigrants, as well as first and second generation Polish-Americans living in Predominantly Polish neighborhoods in the Boston area. In addition to conducting in-depth informant directed interviews with fifteen to twenty informants, Drogosz will engage in participant observation of public events. Finally she will try and transform her data onto a paper for a conference and/or publication in an academic journal.

**Mike Raposa '11** and **Erin Horanzy '11** will work with **James E. Wadsworth**, Associate Professor of history, on a project titled *The James Richards Project*. This project involves the detailed study of the James Richards ledger from Weymouth, Massachusetts. James Richards has left a unique record that provides a glimpse of the economic and social life of a well-to-do and well-connected yeoman farmer. His record will permit this team to compile and analyze commodity price list over an eighteen year period. It permits an investigation into how kin relations modified economic relationships. It also allows them to examine how the barter economy so common in the seventeenth century articulated with the moneyed economy of the eighteenth. They will also reconstruct the ebb and flow of Richard's economic activity on a day to day basis over an unprecedented eighteen years. In that way, they will be able to see for the first time the nature of economic change in this very important formative period of New England history. Raposa, a History and Political science double major, and Horanzy, a history major, will analyze the data collected in previous SURE projects, to produce a chronologically based commodity price list and analyze Richards' connections with the broader economy. The students will also investigate how Richards' economy activity shifted with the seasons. Finally they will compile their conclusions in formal essay and present their findings at the North Eastern Historical Association bi-annual conference in fall of 2010. Eventually they will publish an annotated transcription of the ledger with several interpretative essays.

**Thompson Lozier '11** will work with **Chris Wetzel**, Assistant Professor of Sociology, on a project titled *Social Worth and Common Wealth*. Their research will situate contemporary debates about tribes and casinos in a larger context by diachronically assessing how race, class, and gender have impacted debates over legalizing different forms of gaming in Massachusetts. Specifically, this project will draw on qualitative data sources to analyze variable public constructions of the proprietors of gaming operations, the patrons of gaming facilities, and the process of allocating gaming proceeds during debates over pari-mutuel wagering in 1930s, the state lottery in the 1970s, and casinos (particularly tribal casinos) in the 2000s. Thompson, a sociology major, will use the completed research to present a paper at a regional sociology conference during the 2010-2011 academic year. He will also collaborate with Professor Wetzel to prepare an article that will be submitted to a journal.

SURE Scholars will begin the program on June 1, 2010 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 summaries 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 2011 may contact the Office of Academic Development, Duffy 119, ext. 1069, for further information. The deadline for applications for the summer of 2011 will be December 3, 2010.