Celebrating 30 years of Undergraduate Research
Three research students and I each completed a painting as a tribute to the thirty-year anniversary of the Undergraduate Research program. Each artist used the same format, a wood panel with six by five proportions. When multiplied this equals thirty. We all approached the project in our own way using our individual ideas. My thoughts centered on the journey of an artist and the community that can foster artistic growth. Elements in my painting suggest individuals and their existence within that community and how the exchange of ideas and experiences contribute to the growth of all, students and professors alike.

— Robert Straight, Professor, Department of Art

I wanted to use this panel as a way to transition into my future research endeavors. Recently, my work has begun to incorporate elements of architecture along with optical art. I plan on continuing with this idea of dimensionality by breaking away from the conventional boundaries of a rectangular canvas.

— Rachel Kozlowski, junior, Fine Arts major

I have an idea of the world: it is an enormous and beautiful living landscape that is constantly moving, breathing, and in flux. In this particular painting, I am focusing on the structure of trees and how they can interact with the environment that surrounds them.

— Alexandra Push, senior, Fine Arts major

While studying Daoism and Native American philosophies, I explored how people relate to their surroundings. My paintings interlace figures and landscapes in a psychedelic, dynamic world where sky imperceptibly blends into water, where viewers are thrown off-balance and compelled to reconsider their perspectives.

— Anne Yoncha, senior, Fine Arts major
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FRIDAY, MAY 7, 2010

5:00 pm – 7:00 pm
Opening reception
Courtyard Marriott patio
Welcome by Dr. Lynnette Overby, Faculty Director of the Undergraduate Program and Meg Meiman, Coordinator of the Undergraduate Research Program
Welcome by President Patrick Harker
Remarks by Provost Tom Apple
Unveiling of anniversary art work – Professor Robert Straight, Rachel Kozlowski, Alexandra Push, and Anne Yoncha
Music by Brian Bersh, Eric Daino, Tim Plimpton, Trevor Sindorf

2:00 pm – 3:15 pm
Concurrent panel presentations
Panel 1: The impact of undergraduate research on faculty scholarship at the University of Delaware – Art Gallery
Moderator: Santhi Leon, Assistant Professor, Sociology and Criminal Justice
Suzanne Burton, Associate Professor, Department of Music
Lindsay Hoffman, Assistant Professor, Department of Communication
Jim Richards, Professor, Department of Health and Exercise Sciences
Jeff Miller, Professor, Department of Economics

Panel 2: The community matters: the impact of faculty, student, and community collaborations – Ewing Room
Moderator: Shuaib Meacham, Associate Professor, School of Education
Anna White, alumna (1997, Anthropology and International Relations)
Robert Smith, alumnus (1987, Honors Economics and Political Science)
Ben Herold, alumnus (1998, History and Political Science)
Gitu Barua, Faculty, and Lauren House, student, Department of English
Sharron Lennon, Professor, and Ashley Hardcastle, student, Fashion and Apparel Studies

3:15 pm – 3:45 pm
Break

3:45 pm – 5:00 pm
Concurrent panel presentations
Panel 3: The impact of undergraduate research on one’s career and life journey – Art Gallery
Moderator: Alan Fox, Director, University Honors Program
Elaina Burns, alumna (2003, Honors Music Composition and Theory)
Meghan Hewey, alumna (2000, Honors Anthropology and Political Science)
Matthew Gabriele, alumnus (1997, Honors History)
Eric Benson, alumnus (1996, Agricultural Engineering Technology) and Associate Professor, Bioresources Engineering

Panel 4: Mentoring undergraduate students at the frontiers of discovery – Ewing Room
Moderator: Roberta Golinkoff, Professor, School of Education
Ajay Prasad, Professor, Department of Mechanical Engineering
Matthew Kinservik, Professor, Department of English
Ashley Pigford, Assistant Professor, Department of Art
Patricia DeLeon, Trustees Distinguished Professor, Department of Biological Sciences

5:00 pm – 7:00 pm
Closing reception
Rodney room
Introduction of keynote speaker: John Burmeister, Alumni Distinguished Professor, Chemistry and Biochemistry
Keynote speaker: Charles Bergquist, Director for Talk of the Nation: Science Friday on National Public Radio (UD alumnus, 1996, Honors Chemistry)
Recognition of the Undergraduate Research Program’s founder, Dr. Joan Bennett
Recognition of Dr. Donald Harward and Dr. Burnaby Munson
Recognition of donors and faculty
Closing performance – Dance in Translation – performed by James Proctor and Kim Schroeder

SATURDAY, MAY 8, 2010

9:00 am – 11:45 am
Senior Thesis Symposium
Perkins Student Center, Rodney Room
Welcome by Dr. Lynnette Overby, Faculty Director of the Undergraduate Program and Meg Meiman, Coordinator of the Undergraduate Research Program
Welcome by Donald Harward, President Emeritus, Bates College
Introduction of keynote speaker: Kathleen Turkel, Assistant Professor, Women’s Studies Program
Keynote speech by Chiara Sabina, Assistant Professor of Social Sciences, Pennsylvania State University at Harrisburg (UD alumna, 2000, Honors Psychology)

12:00 pm – 2:00 pm
Lunch
Perkins Student Center, Rodney Room
Introduction of keynote speaker: Sanford Robbins, Chair, Department of Theatre
Keynote speaker: Joseph Salvatore, Artistic/Education Director for Learning Stages and faculty member of the Program in Educational Theatre at New York University (UD alumnus, 1995, Honors History)

3:15 pm – 4:30 pm
Panel 2: The community matters: the impact of faculty, student, and community collaborations – Ewing Room
Moderator: Shuaib Meacham, Associate Professor, School of Education
Anna White, alumna (1997, Anthropology and International Relations)
Robert Smith, alumnus (1987, Honors Economics and Political Science)
Ben Herold, alumnus (1998, History and Political Science)
Gitu Barua, Faculty, and Lauren House, student, Department of English
Sharron Lennon, Professor, and Ashley Hardcastle, student, Fashion and Apparel Studies

3:45 pm – 5:00 pm
Concurrent panel presentations
Panel 3: The impact of undergraduate research on one’s career and life journey – Art Gallery
Moderator: Alan Fox, Director, University Honors Program
Elaina Burns, alumna (2003, Honors Music Composition and Theory)
Eric Benson, alumnus (1996, Agricultural Engineering Technology) and Associate Professor, Bioresources Engineering

Panel 4: Mentoring undergraduate students at the frontiers of discovery – Ewing Room
Moderator: Roberta Golinkoff, Professor, School of Education
Ajay Prasad, Professor, Department of Mechanical Engineering
Matthew Kinservik, Professor, Department of English
Ashley Pigford, Assistant Professor, Department of Art
Patricia DeLeon, Trustees Distinguished Professor, Department of Biological Sciences

5:00 pm – 7:00 pm
Closing reception
Rodney room
Introduction of keynote speaker: John Burmeister, Alumni Distinguished Professor, Chemistry and Biochemistry
Keynote speaker: Charles Bergquist, Director for Talk of the Nation: Science Friday on National Public Radio (UD alumnus, 1996, Honors Chemistry)
Recognition of the Undergraduate Research Program’s founder, Dr. Joan Bennett
Recognition of Dr. Donald Harward and Dr. Burnaby Munson
Recognition of donors and faculty
Closing performance – Dance in Translation – performed by James Proctor and Kim Schroeder
Welcome to the 30th Anniversary of the Undergraduate Research Program. We are very honored and proud to be the current Faculty Director and Coordinator of this highly successful program. During this celebration you will experience the many facets of undergraduate research, from our new scholars who are completing a senior thesis this year, to alumni who have created lives enriched by their experiences as undergraduate scholars, and finally, to our faculty who have given countless hours of their time to mentoring students, and in return gained assistance with their scholarship and lifelong friends and colleagues. We must acknowledge the support of our Faculty Advisory Board, President Patrick Harker, and Provost Tom Apple for their continuing support of this program. Former Director of the Undergraduate Research Program Joan Bennett, and mentor extraordinary Burnaby Munson both provided ongoing guidance and the historical foundation that we needed to succeed. Our office colleagues Sue Serra and Maria Palacas were available on a daily basis to provide insight into the organization of this event. Finally, our office administrator Mary Ann Null and Co-Coordinator Justine Johnson provided the necessary support for the program. We want you to take time to meet the outstanding alumni who are presenting at this event, and bask in the glow of pride they bring to the University of Delaware. It is exciting to see so many current and former students, faculty, and administrators coming together to acknowledge the journey of the Undergraduate Research Program. Again, we welcome you, and thank you for making thirty amazing years possible.

Sincerely,

Lynnette Young Overby, Ph.D.
Faculty Director
Undergraduate Research Program
University of Delaware

Meg Meiman
Coordinator
Undergraduate Research Program
University of Delaware

I’m honored to pay tribute to the University of Delaware’s Undergraduate Research Program on the occasion of its 30th anniversary. The program’s resilience and vitality serve as a testament to its quality, its significance, and its support of UD’s core academic mission.

The idea undergirding the program is simple: Allow undergraduates to take part in faculty-level research. And yet its thoughtful execution is rare. UD’s Undergraduate Research Program was the nation’s very first and, 30 years later, remains one of its most respected.

What started with a few highly motivated students pursuing discrete projects has become a fully integrated program boasting the participation of more than 700 UD undergraduates each year. It’s fitting that every program expansion—every effort to institutionalize undergraduate research at UD—is attributable to students bent on optimizing their research experience.

As you’ll see in these pages, URP alumni speak eloquently about the extraordinary academic and career opportunities made possible by their participation in the program. They talk about the critical discipline-specific skills their research honed; how the program provoked, refined, or affirmed their later research interests; and how their early experience gave them a competitive advantage when those research opportunities materialized. But they also talk about the soft skills strengthened by the program—confidence, perseverance, thoroughness, flexibility, independent thinking. These attributes are precisely what authentic, problem-based learning cultivates—and they’re among the many reasons why URP is so important to the University of Delaware.

I congratulate everyone involved in making UD’s Undergraduate Research Program such a special resource for hands-on scholarship, for preparing many thousands of students for exciting and rigorous careers, and for developing in participants the qualities that predict success, wherever life takes them.

Sincerely,

Patrick T. Harker
President
Greetings to those assembled in recognition of the Undergraduate Research Program at the University of Delaware.

Nearly thirty-five years ago, one of the real joys of interacting with colleagues and students who were committed to helping to launch the University Honors Program was the opportunity to look beyond the many demands of the immediate—("How could the Freshman Honors Program located off campus become a fully integrated University Honors Program, residing in Newark as a leading dimension of the University and its undergraduate programs?")—to the longer term vision that the undergraduate experience at Delaware would be “second to none” for any student intent on both learning and discovery.

In those years Dr. Margaret MacVicar led a program for students at MIT that involved undergraduates (including first-year students) in meaningful research experiences—working directly with faculty and research teams. Margaret’s legacy was in large part her willingness to encourage adoption and adaptation of programs that took seriously how undergraduate students could be fully engaged in both pure and applied research projects. What was then rare is now common among excellent institutions. And what was then a key initiative within the University Honors Program to make the undergraduate experience at Delaware “second to none,” has become a dimension of the campus experience that pervades the University and its mission.

One colleague in those early years of planning and initiating was Dr. Joan Bennett, who with her spouse had been a friend and ally in championing excellence in undergraduate education. Herself a scholar, Joan had extraordinary capacities to take an idea and develop its application within a structure that would permit the realization of both student and faculty goals. I don’t recall the details of the conversation, but it must have been an easy one to gain Joan’s leadership of the nascent URP at UD. What I do recall is the magnificent program that did emerge under her direction and guidance. In some respects (and I believe our colleague in those years, Dr. Burnaby Munson, who then, and for the entire history of the Honors Program, has been its true champion and “face”, would agree) that the URP gave the Honors Program as much visibility and integrity as the Honors Program gave to it!

Any assessment of the successes of the URP would have to focus on the achievements and lasting value of the experiences that the participating students for over thirty years have had as undergraduates at the University. We like to think that some educational experiences are transformative—for the learner and for the teacher/scholar—and what Joan made possible with allies such as Burnaby, and many others, was the expectation, the likelihood, and the delivery of such transformative experiences for three decades of students and faculty.

With best wishes, and respectful admiration and gratitude to Joan and Burnaby.

Sincerely,

Don Harward, University of Delaware 1967-1980

It is my privilege to pay tribute to the University of Delaware’s Undergraduate Research Program as it celebrates its 30th anniversary. It is a program that has had a tremendous and lasting impact on our institution’s mission with its twin ideals of teaching and research. Indeed its impact has been deeply transforming.

During my tenure at the University, I have had the pleasure of witnessing the evolution of the URP which has grown in stature and can take pride not only in its longevity, but also in its high quality and its formidable record of accomplishments. This is a program that engages students across a huge intellectual territory from the arts to the sciences and produces, among others, career-ready individuals who are prepared for life’s journey.

It is also a program that plays an important role in faculty development. I write as a grateful beneficiary of this provision of the program which has allowed me to partner with scores of undergraduates in establishing my research program while they build their scientific careers. Further, it has provided me the opportunity to hone my mentoring skills. Thus this program has ongoing benefits for both students and faculty.

As a grateful faculty and a member of the Academic Affairs Committee of the Board of Trustees, I extend my heartiest congratulations to the past and current leadership. Indeed the URP founders and principals have been par excellence leaders who have served with passion, energy, and devotion in helping to equip the next generation of leaders.

Sincerely,

Patricia A. DeLeon, Ph.D.
Trustees Distinguished Professor of Biological Sciences
One of the first programs of its kind in the nation, the Undergraduate Research Program (URP) has now been a part of the University of Delaware community for three decades. Although small numbers of individual undergraduates probably assisted engineering and science faculty in their research since the beginning of UD’s establishment as a research university, the first records of undergraduate research are in undergraduate student theses; in 1897, the first undergraduate thesis at UD was written by a student in mechanical engineering. At this point in the University’s history, graduate-level research programs were also just beginning; so the line between “undergraduate” and “graduate” research was a bit blurred. In 1936, the University inaugurated the Degree with Distinction. To obtain this honor, undergraduates were expected to create an original contribution to their field and document this new knowledge in a thesis. A handful of highly motivated students pursued this option to experience faculty-level research and write what was essentially a master’s-level thesis as an undergraduate. Some of the first Degrees with Distinction were awarded in 1936 to students studying chemistry, English, mathematics, biology, and physiology.

By the late 1970s, when the University was awarding about 20 Degrees with Distinction each year, a new impetus for undergraduate research came with the creation of a university-wide Honors Program under the leadership of philosophy professor Dr. Donald Harward. The first Honors Degrees required a senior thesis, based on the model provided by the long-standing Degree with Distinction. In response to faculty concern that larger numbers of students coming to the thesis experience through the Honors Program would need preparation, Dr. Harward persuaded a small group of faculty to design a colloquium that would provide first-year Honors students with an introduction to the concepts and methodologies of faculty-level research. The result was “The Research Commitment: Issues and Skills.” In this class, faculty researchers from English, biology, sociology, and statistics, including the future URP director, Dr. Joan Bennett, explained their research questions and methods, modeling their own research experiences for the class and involving the students in the models. About 20 guest speakers from the UD faculty were also invited each time the course was taught to provide students with a look at their own
research projects. Over a six-year period, the Research Colloquium helped to create a body of students and faculty who were engaged with the idea and practice of undergraduate research. In 1980, an Undergraduate Research Program was brought into being with the help of a grant from the U.S. Department of Education. The new program published an annual booklet listing current faculty research projects, thus initiating an undergraduate research matching system that is still used today in the online Faculty Project Listings on the URP’s website, which includes the research of over five hundred UD faculty who actively invite undergraduate participation.

As the program expanded, it quickly became clear that creating a culture of undergraduate research required more than colloquium classes and matching students up to faculty. Students were finding that they did not quite have enough time to become deeply involved with their research, regardless of how motivated they were to try.

Enter the Scholars Programs. Dr. Bennett, now coordinator of the new Undergraduate Research Program, began working with the engineering departments and UD Housing to arrange for students to stay on campus over the summer after the sophomore year, a time when they could focus on and engage solely in research. A combination of industrial and Provost funding supported sixteen Engineering Scholars over the summers of 1983 and 1984 as an experiment to see what sophomores could accomplish. When the start-up funding for Scholar awards was due to expire in 1985, the Scholars program was working too well to be abandoned: the only acceptable option was to expand it. All the UD science and engineering colleges, departments, and research centers began contributing funds for stipends, and the DuPont Company agreed to continue its support, with the Gore Company and others joining in.

Shortly thereafter, two new student-driven initiatives got underway. In 1986, although UD had academic-year study abroad opportunities, these were not practical for students in the highly structured curricula of engineering and sciences, who could not spend a semester abroad without adding an extra year to their bachelor’s program. Enter the UD-Imperial College exchange, which since 1986 has funded students from UD to work during the summer with IC faculty and IC students to work with faculty at Delaware. Meanwhile, as the Science and Engineering Scholars shared with their friends all that they had accomplished in full-time summer research, students from other majors and departments urged the creation of summer research opportunities for students in the non-science/engineering departments. Just as Dr. Bennett, an English professor, had initiated the Engineering Scholars, so Dr. Burnaby Munson, a chemistry professor, persuaded UD’s central administration to contribute the original funding for the Humanities Scholars in the mid-1980s. (In 2002, a Newsweek reporter searching for undergraduate humanities majors who had chosen to attend their university because of its opportunities for research apprenticeships could find only one such institution in the nation, UD.) The Scholars programs moved eventually into CEPP, then to the arts, and finally the social sciences. Always, the expansions were student-driven: students from different majors became interested and sought out research apprenticeship opportunities; and faculty responded creatively in a process that

“[Undergraduate research] helped [me] in the areas of research, persistence and group collaboration.” — Liane Murtagh, Psychology, 1984

Howard Hughes Science Scholar Michael Scoblete works with his advisor, Professor Klaus Theopold, Chemistry and Biochemistry, to research metal complexes in oxidation catalysis (2001).
continues to this day. Undergraduates’ research results in all fields were celebrated in a growing number of disciplinary and multi-disciplinary posters sessions and symposia throughout the year.

As all this growth was happening with summer research, the Senior Thesis program expanded as well. In the early 1990s, the Board of Senior Thesis Readers was formed to provide outside readers for senior thesis committees; and the UNIV 401 & 402 courses were developed to help guide students through the thesis research and writing process. The number of students receiving Degrees with Distinction continued to increase; currently, out of about 700 undergraduates working in research each year, over one hundred are seniors completing theses for Distinction. Some are helped by Winter Session fellowships that enable full time work on the thesis during the vital month of January.

Beginning in 1998, the URP responded to a request from the National Science Foundation to arrange for formal evaluation studies to document and examine the benefits and challenges of undergraduate research for students and faculty so that universities nationwide could be encouraged to scale up research opportunities for their own undergraduates. Of particular concern was the desire to raise faculty levels of participation at other research universities to the UD level of over 90% in all areas of science and engineering, and over 65% in all other fields. The five studies that resulted are in use today.

The Undergraduate Research Program has become a vital part of the University of Delaware community; and when Dr. Bennett retired at the end of the 2006-07 academic year, two people, Dr. Lynnette Overby, faculty director, and Meg Meiman, coordinator, stepped in to keep the program running. After thirty years, undergraduate research continues to grow.

“Let’s put it this way, without the Human Emotions lab I doubt I would be where I am today. The depth and breadth of my undergraduate research (I worked well over 1000 hours in the lab over my four years at UD) was a key factor in helping me to gain acceptance into a top-rated graduate school. In addition, the experience helped to shape my career goals by exposing me to the positives and negatives of conducting psychological research.” — Dryw Dworsky, Psychology, 1998
Undergraduate research holds rewards for students and faculty alike: faculty scholarship is enhanced while undergraduates are given an opportunity to flourish in a climate of inquiry. Leading undergraduate students through inquiry on issues pertaining to one’s expertise and bringing the process full circle, from defining a research question to writing a research article, can be a gratifying experience for faculty. In this talk, I will discuss how working with undergraduate researchers has impacted my scholarly work through: (a) constructing literature reviews; (b) designing research studies; (c) implementing pilot studies; (d) giving paper presentations; and (e) writing research articles. By working collaboratively with motivated students who are intellectually curious on areas specific to a faculty’s research agenda, the potential exists to advance one’s scholarship in a number of ways.

The Rewards of Mentoring Undergraduate Researchers on Faculty Scholarship
SUZANNE L. BURTON
ASSOCIATE PROFESSOR OF MUSIC EDUCATION

Undergraduate students have a lot to offer—and gain—from doing academic research with faculty. While undergraduates do indeed have less formal research training than graduate students, their fresh perspectives are sometimes what make the interaction so invaluable. Scholars can become entrenched in the discourse of the day, and undergraduates can often open our eyes to new ways of examining both old and new issues. As a result, the relationship becomes mutually beneficial; the undergraduate has a rare chance to work one-on-one with a scholar, and the scholar can examine problems in a new light. A commitment to open dialogue produces not only a one-time learning experience, but potentially groundbreaking research presented at conferences and published in academic journals. I will discuss examples of such research as well as some tips and methods for cultivating engaged students who can contribute to multiple aspects of the research process.

The Impact of Undergraduate Research on Faculty Scholarship: Broadening One’s Horizons
JEFFREY MILLER
PROFESSOR OF ECONOMICS

Training within an academic discipline tends to focus on very narrow subjects. On the other hand, material that is taught in undergraduate courses covers broader and more current issues than is normally pursued in academic research. Undergraduates are more interested in these broader questions so they tend to push faculty research into areas where broader and more currently relevant questions are posed.

The impact of Undergraduate Research on Scholarship at the University of Delaware
JAMES RICHARDS
PROFESSOR, DEPARTMENT OF KINESIOLOGY AND APPLIED PHYSIOLOGY

The scholarly activities of undergraduates have grown significantly throughout my 30-year tenure as a faculty member, and today undergraduates provide important contributions to the University’s research mission. The research conducted by undergraduate students frequently merits presentation at national and international conferences, and is often accepted into prestigious peer-reviewed journals. These presentations and publications facilitate the University’s ability to attract external funding and increase a student’s chances for acceptance into highly competitive graduate or professional schools.

Seeing Things in a New Light: Working with Undergraduate Students on Scholarly Research
LINDSAY H. HOFFMAN
ASSISTANT PROFESSOR, COMMUNICATION RESEARCH COORDINATOR, CENTER FOR POLITICAL COMMUNICATION

Undergraduate students have a lot to offer—and gain—from doing academic research with faculty. While undergraduates do indeed have less formal research training than graduate students, their fresh perspectives are sometimes what make the interaction so invaluable. Scholars can become entrenched in the discourse of the day, and undergraduates can often open our eyes to new ways of examining both old and new issues. As a result, the relationship becomes mutually beneficial; the undergraduate has a rare chance to work one-on-one with a scholar, and the scholar can examine problems in a new light. A commitment to open dialogue produces not only a one-time learning experience, but potentially groundbreaking research presented at conferences and published in academic journals. I will discuss examples of such research as well as some tips and methods for cultivating engaged students who can contribute to multiple aspects of the research process.

“My undergraduate research experience gave me a firm foundation with which to excel in each different type of position.
The problem-solving experience, along with the computer modelling exposure, was a perfect springboard into my first position in product development. The logical methodology, which is a critical component of research, allowed me to easily design experiments that applied to my work with motion picture chemicals and reactions.” — Margaret O’Malley Moorman, Chemical Engineering, 1985
Research for Advocacy: Countering the Tobacco Industry’s Global Expansion
ANNA WHITE
ALUMNA, 1997, ANTHROPOLOGY AND INTERNATIONAL RELATIONS

As an undergraduate, I spent seven months in West Africa conducting research for my anthropology thesis, “Gender, Power, and Fertility Decision-making in N’Gorene, Senegal.” While there, I became appalled by the amount of cigarette advertising in the country, incorporated the topic into my research, and began writing about the problem for local, national, and international audiences. Upon graduation, I returned to Senegal to further document multinational tobacco corporations’ marketing strategies, an experience which led to work in the field of international tobacco control. Over the past decade, this work has involved monitoring the tobacco industry’s strategies worldwide, promoting international tobacco control advocacy campaigns and events, drawing attention at tobacco company shareholder meetings to the deadly side of the industry’s lucrative global expansion, and leading delegations of North American tobacco control advocates to other regions of the world. My current work focuses on youth advocacy to counter the tobacco industry.

Making a Difference
BEN HEROLD
ALUMNUS, 1998, HISTORY AND POLITICAL SCIENCE

What type of research can make a difference for inner city public high school students? As an education researcher, independent filmmaker, and freelance journalist, I have spent the last ten years focusing on the experiences of children and families in Philadelphia public schools. In the process, I have found that researchers and practitioners intending to help often experience a crisis of faith when confronted with the limited impact of our work, our complicity in the problems we claim to address, and our continued need to make a living. In response, I suggest that we re-examine our own motivations, choices, and identities as “helpers” so that we might be more transparent about the nature of our work, more honest about our limitations, and better partners in community-led efforts to address the root causes of inner city children’s struggles.

Public Intellectuals: Negotiating the Sometimes Competing Demands of Your Research Career and Your Desire to Do Good in the World
ROBERT SMITH
ALUMNUS, 1987, HONORS ECONOMICS AND POLITICAL SCIENCE

Most students who pursue PhDs in the social sciences are oriented towards larger political or social justice goals. They hope their research will make a difference in the world. They believe that their insightful analysis will help change policy, or the way people think about an issue. These lofty ideals bump up against the demands of graduate school and the academic job market. These conflicts become more pronounced after one’s tenure clock begins ticking. This talk will explore some of the tensions between academic life and the desire to contribute to improving the world through one’s work, and map out some strategies for successfully negotiating these dangerous shoals. Students, rest assured: there are ways to build a public good component into your academic work, but you have to think about it up front, or wait until much later. And there is also a growing movement to support public intellectual work as part of academic review. You will also want to consider how academic careers and families are both front loaded in your balancing act. The rewards to such work can be considerable, both intellectually and personally.

UD–KATHA Collaboration for Slum Community Development
MAHASVETA BARUA
FACULTY, DEPARTMENT OF ENGLISH AND LAUREN HOUSE, SENIOR ENGLISH MAJOR

This presentation will discuss a project that was initiated during the Winter 2009 study abroad in India, was developed over two semesters of research and organization, and was implemented in January 2010. The goal of the project was for UD students to be involved in the KATHA schools in the Govindpuri and Tughlagabad resettlement communities, and for a student-run service group to work within the Govindpuri community. The project included two components: students in the 2010 Study Abroad pro-
recent studies, a theoretical framework will be presented explaining how characteristics of retail stores (promotions, long lines, rude employees, lack of service, service failure, stockouts) and shoppers (customers violating norms of behavior) evoke verbal aggression, negative word of mouth, rude gestures, complaining, vandalism, dumping merchandise, and physical abuse. Suggestions of strategies retailers can implement for a peaceful BF will be suggested.

Death by Shopping: Why Did It Happen and What Can We Do?

Sharron J. Lennon, Irma Ayers Professor Department of Fashion and Apparel Studies, and Ashley Hardcastle, Junior Fashion and Apparel Studies Major

Black Friday (BF) is the name of the day after Thanksgiving and is so named because it is supposedly the first day of the year when U.S. retailers begin to make a profit (i.e., operate in the black). In recent years retailers have begun to open early on this shopping day and offer deeply discounted merchandise to attract consumers. In anticipation of promotions, it is not unusual for shoppers to line up outside of stores and wait several hours for them to open on BF. The untimely death of a Walmart worker by shoppers who trampled him in their search for bargains is an egregious example of extent to which some consumers will go to locate and purchase “deals” on BF. Incidents like this are evidence that research is needed to determine the (1) sequence of events that lead to such behaviors and (2) strategies retailers can use to thwart them. Based on recent studies, a theoretical framework will be presented explaining how characteristics of retail stores (promotions, long lines, rude employees, lack of service, service failure, stockouts) and shoppers (customers violating norms of behavior) evoke verbal aggression, negative word of mouth, rude gestures, complaining, vandalism, dumping merchandise, and physical abuse. Suggestions of strategies retailers can implement for a peaceful BF will be suggested.

Just Start Writing!

Elaina Burns
Alumna, 2003, Honors Music and Composition Theory

One of the most valuable lessons I learned while conducting undergraduate research at the University of Delaware is this: just start writing. Whether you are about to begin an undergraduate thesis or you are finishing a doctoral dissertation, this simple statement can carry you through the inevitable case of writer’s block. At UD, I learned to have patience with the research process. I used to find it frustrating that my research often left me with more questions than answers, but I have developed an appreciation for these questions because they have consistently led me to a deeper understanding of my research topic. I was fortunate to have been mentored by members of the music faculty who encouraged me to seek out opportunities to present my research results. They gave me the skills to navigate the winding path toward excellence and the confidence to pursue a career in academia.

Undergraduate Research and a Career Adventure in Archaeology

Meghan Howey
Alumna, 2000, Honors Anthropology and Political Science

I will discuss how the research I did at UD unlocked my passion for archaeology and the multiple ways it has influenced my career. Being involved first hand in a research project, moving from field work to the lab to the final analysis, gave me a foundation for success in graduate school. This foundation included obvious things like the skills to develop my own ideas and find methods to answer them, yet it also gave me less obvious, but just as critical skills, like the ability to persist and struggle through what can seem like endless hours of less than thrilling work in order to achieve a larger research goal. I will outline my career trajectory and reflect on the ways that as a professor myself now I draw on my own experiences as an undergraduate researcher at UD when offering guidance to students.

The Life of the Mind

Matthew Gabriele
Alumnus, 1997, Honors History

My presentation will discuss some of the specific problems and opportunities arising from my experiences with undergraduate research. I can say in all honesty that I am where I am now because of the Undergraduate Research I did at the University of Delaware. It broadened my intellectual horizons, preparing me for graduate school and ultimately for a career in academia. Moreover, the skill set I developed as an undergraduate has led me to think about problems in a fundamentally different way than some of my peers. This has led to my firm commitment to undergraduate research and my involvement in undergraduate research at my home institution of Virginia Tech.

Really, I Planned to Be in the Chicken Industry

Eric Benson
Alumnus, 1996, Agricultural Engineering Technology

Like many graduating seniors, I thought I knew what I wanted to do when I graduated from the University of Delaware. My plans were complete—why would I need ECON 151 or Biology? Two years for a master’s degree in Agricultural Engineering became five and the masters became a Ph.D. Somewhere along the line, I helped develop a self-guided tractor, drive a big red combine harvester, and mount cameras on rental cars. At the end of it all, I managed to come back to my alma mater as an assistant professor to build on this research. So what happened to the big green tractor and why are there all these chickens around me now?
Mentoring Undergraduate Students at the Frontiers of Discovery: Experiences in Clean Energy Research
AJAY K. PRASAD
PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING
DIRECTOR, UD CENTER FOR FUEL CELL RESEARCH

Clean energy research, in particular fuel cells, has become quite popular on our campus in recent years. In this talk I will present a brief description of fuel cells, and their potential to address major concerns facing our nation today such as our dependence on foreign petroleum and the emission of greenhouse gases. Although fuel cells are highly efficient zero-emission devices, they face a number of critical barriers to commercialization including high cost, limited durability, and the lack of a hydrogen infrastructure. Research at the Center for Fuel Cell Research is focused on finding solutions to these challenges. Our fuel cell laboratory has employed a large number of fundamental fuel cell research as well as system-level development on our two fuel cell buses. I will highlight some examples of undergraduate research from both areas.

Mentoring Undergraduate Students at the Frontiers of Discovery – Ewing Room

Moderator: Roberta Golinkoff, Professor, School of Education

Mentoring Undergraduate Students at the Frontiers of Discovery
PATRICIA DELEON
PROFESSOR, DEPARTMENT OF BIOLOGICAL SCIENCES

Mentoring provides the opportunity for a mentor to partner with mentees as they build their careers. Nowhere is mentoring more effective than in the scientific research laboratory, since the experience gives the mentor-mentee duo a structured activity around which mentor-mentee interaction goals can be addressed. Many surveys and casual observations have indicated that positive mentoring increases productivity, and it has now become clear that scientific and technological advances are buttressed by a foundation of positive mentoring. Thus, major research universities have now begun to embrace the pursuit of this transgenerational relationship. The objectives and elements of the Undergraduate Mentoring Program that have been established in the DeLeon Laboratory for over a generation will be described. Focus will be placed on the methods and procedures, the significance and impact, as well as the symbiotic relationship that occurs between the mentor and mentee in a human relationship that provides a lasting legacy.

Thinking Through Making: A Kinesthetic Approach to Design Education
ASHLEY PIGFORD
ASSOCIATE PROFESSOR, DEPARTMENT OF ART

A kinesthetic, physical interaction with media engages a student in a holistic relationship with the world around them. This approach to design education offers a student the opportunity to develop their individual creative process as an interaction of mind, body, and material.
MAHAVETA BARUA is on faculty in the Department of English. Her research interests and scholarship include Women’s Studies and World Literature. She has also directed two recent Study Abroad programs to India, with the goal of involving UD students in much-needed community development in India. She has also developed service projects in India utilizing students’ majors and research interests. In 2009 Dr. Barua was awarded an International Research Award, and recently organized an international conference in January 2010 – “Social Movements for Women and Children – Closing the Social Gap in Globalized Times” – to facilitate an exchange of ideas for future projects.

ERIC BENSON (UD alumnus, 1996, Applied Science in Agricultural Engineering Technology) received his bachelor of Applied Science in Agricultural Engineering Technology from the University of Delaware. He earned a Masters of Science in Agricultural Engineering and a doctorate of Philosophy in Agricultural Engineering from the University of Illinois, Urbana. He is an associate professor in both the Department of Bioresources Engineering and Department of Animal and Food Sciences within the College of Agriculture and Natural Resources at the University of Delaware. Professor Benson operates a multidisciplinary applied poultry engineering research program that includes emergency poultry disease response and environmental monitoring and remediation of commercial poultry houses. The University of Delaware markets and licenses technology developed by Dr. Benson. Dr. Benson actively teaches emergency poultry disease response procedures both domestically and internationally. In his spare time, Dr. Benson and his wife, Catherine Benson, are owned by five sled dogs and teach Girl Scouts and Boy Scouts about dog sledding.

CHARLES BERGQUIST (UD alumnus, 1996, Honors Chemistry) received a Bachelor of Science in Chemistry in Honors from the University of Delaware. He later earned a Master of Arts in Journalism from New York University, concentrating in science and environmental reporting. Currently he serves as the director and contributing producer of National Public Radio’s Talk of the Nation: Science Friday. He also is an adjunct professor in the Department of Journalism at NYU, where he teaches the use of multimedia techniques in science reporting. Bergquist has covered topics ranging from cancer genetics and political decision-making to spaceflight and nanomaterials. He wrote about microelectronics for Frost and Sullivan’s ‘Technical Insights’ series, and has edited books for children on topics including AIDS, puberty, and Lyme disease. His writing has appeared in publications from Scholastic’s SuperScience to Popular Science. Prior to joining Science Friday, he was one of the first employees of ScienCentral, a television science news production company, where he helped build a companion Web site for Transistorized!, a PBS documentary about the invention of the transistor.

“IT made my career! On the strength of my research experience at the University of Delaware, I was accepted for graduate studies in inorganic chemistry at MIT where I received my Ph.D. in 2005. This would not have been possible without the support and guidance I received from the chemistry and biochemistry faculty at the University of Delaware and the research opportunities that I was provided.” — Josh Figueroa, Chemistry, 2000

ELAINA DENNEY BURNS (UD alumna, 2003, Honors Music Composition & Theory) is a pianist and teacher, and is currently completing a doctorate in piano performance and pedagogy at the University of Oklahoma. While in residence at OU, she taught courses
“The undergraduate research program was such a benefit when I attended the University of Georgia and earned a MS degree in plant pathology. Having been through all the steps involved in research, writing a thesis and defending it as part of the UD Undergraduate Research Program, was a definite plus both for my graduate degree and later as a researcher performing experiments and publishing scientific articles. The undergraduate research experience influenced my decision to continue my education in plant pathology.” — Gail Cameron Somodi, Entomology and Plant Pathology and Plant Science, 1982

in music appreciation, group piano, and private piano. Prior to her time in Oklahoma, she received a master’s degree from the University of Colorado in 2006 and a bachelor’s degree with honors from the Dean’s Scholar Program at the University of Delaware in 2003. Mrs. Burns is a Theodore Presser Scholar and a member of Pi Kappa Lambda and the University of Delaware. Her research interests include school-university partnerships, music acquisition and the development of music literacy, and the construction of professional knowledge. She also conducts professional development seminars and clinics on sequential and developmental music pedagogy, music literacy, and curriculum and assessment. Suzanne is the CMENC National Chair and is Chair of the MENC Early Childhood Music SRIG. A member of the editorial board of Music Teacher Education, Music Educators Journal, Visions of Research in Music Education, and in the books Applications of Music Learning Theory and Collaborative Action for Change. She holds degrees from Michigan State University and Spring Arbor University.

PATRICIA DELEON, Trustees Distinguished Professor of Biological Sciences at the University of Delaware, focuses on reproductive genetics. Widely published in the field of andrology, she has served on the editorial boards of three journals in andrology/reproduction. She teaches several courses in Human Genetics, and mentors graduate students, post-doctoral fellows and undergraduates. Since 1992 she has served as the faculty representative to UD’s Board of Trustees; she also chairs the CAS Diversity and Faculty Recruitment and Retention Committee, and has chaired the WOMS Faculty Research Awards Committee and WISE (Women in Science and Engineering). Nationally recognized for her efforts in mentoring, she was keynote speaker at the Inaugural Mentoring Symposium of the American Society of Andrology in 2006 and at the Minority Affairs Symposium of the Society for the Study of Reproduction in 2008. In 2008 she received the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring, and the 2010 Distinguished Alumna award at the University of the West Indies.

MATTHEW GARBIJELE (Honors Degree, History, 1997) graduated magna cum laude from the University of Delaware, as a member of Phi Beta Kappa, with an Honors B.A. in History. He then earned a Ph.D. in History, concentrating in Medieval Europe, from the University of California, Berkeley. He is currently an assistant professor and coordinator of Medieval and Early Modern Studies in the Department of Religion and Culture at Virginia Tech. His current research focuses on the intersection of religion and violence, and he teaches courses on topics from the European Middle Ages to the Age of Discovery. He has published widely on kingship and crusading in the Middle Ages and has co-edited The Legend of Charlemagne in the Middle Ages: Power, Faith, and Crusade (New York, 2008). His new book, An Empire of Memory: The Legend of Charlemagne, the Franks, and Jerusalem before the First Crusade, will be out soon from Oxford University Press.

BENJAMIN HEROLD (History & Political Science, 1998) has spent the last ten years focusing on the experiences of children and families in Philadelphia public schools as a researcher, freelance journalist, and documentary filmmaker. Following his undergraduate career at UD, Ben earned a Master’s degree in Urban Education from Temple University, where he published on the college-going patterns of Philadelphia public high school students. In 2008, Ben completed ‘First Person’, an award-winning independent documentary film that premiered on WHYY-Philadelphia. He is a regular contributor to the Philadelphia
“My undergraduate research at UD was probably the first time I combined both experimental and computational approaches to solve a problem. This is something that I do routinely now as part of my work. It also taught me to keep working on a problem, trying slightly different approaches, until I am successful.” — J. Michael Sauder, Chemistry, 1991

Public School Notebook and a consultant to Research for Action, a nonprofit education research organization. Ben currently works as a Data Collector in the Children’s Media Lab at the Annenberg School for Communication at the University of Pennsylvania.

LINDSAY HOFFMAN, Assistant Professor in the Department of Communication at the University of Delaware, received her Ph.D. from The Ohio State University. Her recent research examines the contextual effects of media on individuals’ perceptions of public opinion in different communities; the effects of viewing The Daily Show on learning and participation; communication and political socialization; and political uses of new technology. Her research is theoretically grounded in mass communication, political communication, and public opinion, focusing on contextual effects on attitudes and behavior. Her work emphasizes the social circumstances and psychological predispositions that influence individual media uses and effects, and also examines the components of mediated messages that encourage individuals to participate in -- or distance themselves from -- political activities such as voting, news viewing, or simply expressing opinion. Dr. Hoffman teaches courses in political communication, politics and technology, newswriting, and research methods. In her spare time, Dr. Hoffman enjoys spending time with her husband Mike, making jewelry, cooking, watching movies, taking photographs, traveling, and yoga.

MEGHAN C. L. HOWEY (Honors Degree, Anthropology and Political Science, 2000), Assistant Professor of Anthropology at the University of New Hampshire, is an anthropological archaeologist with theoretical and methodological interests in egalitarian societies, ritual practices, ethnohistory, and spatial analysis with Geographic Information Systems. She received her B.A. (2000) from the University of Delaware and her M.A. (2002) and Ph.D. (2006) from the University of Michigan. She has conducted research across North America, including the Southwest, Southeast, and Great Lakes, as well as in Romania. Her major research project has been on Native American regional organization in the Northern Great Lakes in the period preceding European Contact, AD 1200-1600. She has developed a brand new model of this period by showing how tribal communities used ceremonial monuments to facilitate economic, social, and ideological interaction. Her current National Science Foundation funded project, the Cultural Landscapes of Douglas Lake Archaeological Research Program, expands this analysis. Active collaboration with local Anishinaabeg tribal communities, direct involvement of undergraduate students, and public outreach are vital aspects of this project.

MATT KINSERVIK is the Chair of the English Department at the University of Delaware. He specializes in 18th-Century British Literature and theatre history. He is currently at work on a new book, The Jackson Affair: Law and Literature in the First Age of Terror and is also researching book abridgment as a cultural practice in the transatlantic 18th century.

SHARRON J. LENNON, Irma Ayers Professor at the University of Delaware, received her Ph.D from Purdue University in Consumer Science and Retailing. She teaches graduate and undergraduate courses related to consumer behavior and dress and has published over 100 research articles and book chapters in publications including the Clothing and Textiles Research Journal, Psychology & Marketing, Journal of Business Research, Journal of Retailing, Journal of Consumer Behaviour, and Journal of Fashion Marketing and Management. Her current interests include consumer misbehavior on Black Friday, consumption of fashion counterfeit products, compulsive shopping, and online shopping. Dr. Lennon has been honored as Distinguished Scholar (International Textiles and Apparel Association, 2008); Consumer Sciences Faculty of the Year (Ohio State University, 2004-05); Prentice Hall Distinguished Lecturer (International Textiles and Apparel Association, 2002), Dean’s Faculty Award (Ohio State University, 1997), and Fellow of the International Textiles and Apparel Association (1996). Dr. Lennon currently edits the Clothing and Textiles Research Journal.

JEFFREY MILLER, Professor of Economics at the University of Delaware, has been teaching economics since 1976. He is a graduate of Amherst College where he wrote a senior thesis in economics. (At his urging both of his children wrote senior theses in their senior years in college.) His area of research is the economic changes in countries in transition from Communist central planning to market economies. For seven years he was editor of Comparative Economic Studies, a journal devoted to scholarship on countries in transition. He has traveled extensively in Eastern Europe and the former Soviet Union, and has taught in seven foreign countries. Last spring he taught a course in the MBA program at the American University of Bulgaria.
ASHLEY JOHN PIGFORD, Assistant Professor of Visual Communications in the Department of Art at the University of Delaware, is an artist, designer, musician and educator who works across a wide range of media including kinetic sculpture, interactive installation, performance and print. He teaches students to understand and utilize their own individual creative process through the avenues of graphic design and typography. Ashley maintains an active studio practice where he engages in a heuristic study of interaction design and electronic sculpture.

AJAY K. PRASAD, Professor, Department of Mechanical Engineering at the University of Delaware, earned his Ph.D. from Stanford University in 1989 and has been on the mechanical engineering faculty at UD since 1992. His research is focused on clean energy technologies including fuel cells, wind and ocean current energy, and vehicle-to-grid technology. He founded the UD Center for Fuel Cell Research in 2008 to bring together faculty and industry engaged in fuel cell and hydrogen infrastructure research. As director of the UD Fuel Cell Bus Program, he leads a consortium that conducts research, development and demonstration of fuel cell buses and hydrogen filling stations in Delaware. He teaches Introduction to Fuel Cells to seniors, graduate students and outreach students. He serves on the University Sustainability Task Force, the Steering Committee for the UD Energy Institute, and the City of Newark’s Conservation Advisory Commission.

JAMES RICHARDS is a distinguished professor in the Department of Kinesiology and Applied Physiology at the University of Delaware. His research is in the areas of sport biomechanics and rehabilitation biomechanics. His work in sports biomechanics has focused primarily on figure skating jumps and overhand/underhand throwing motions. Throughout the last ten years, he has worked with the United States Figure Skating Association on projects designed to improve jumping technique and reduce training injuries, and has recently developed an articulated figure skating boot in collaboration with Jackson-Ultima Inc. His research in rehabilitation biomechanics has focused primarily on cerebral palsy gait. He was instrumental in designing and implementing the Gait Analysis Laboratory at the A.I. duPont Hospital for Children in Wilmington, Delaware, and is the author of OrthoTrak gait analysis software. He is a member of the editorial board of Gait and Posture.

CHIARA SABINA (Honors Degree, Psychology, 2000) received an Honors Bachelor of Arts in
Psychology and Spanish Studies from the University of Delaware. She also earned a Master of Arts and doctorate in Applied Social Psychology from Loyola University Chicago. Her post-doctoral work at the Family Research Laboratory, University of New Hampshire, focused on dating violence among college students internationally. Currently, she is an assistant professor of Social Sciences at Penn State University, Harrisburg where she teaches courses on research methods and race, gender, class, and sexual identity diversity, and contributes to the Community Psychology and Social Change masters program. Professor Sabina’s research interests include responses to partner violence, socio-structural factors affecting partner violence, and the experience of partner violence among diverse populations such as immigrants, ethnic minorities and sexual minorities. Professor Sabina has received two National Institute of Justice grants to examine victimization and help-seeking among Latino women and Latino adolescents nationally. These two studies, Sexual Assault among Latinas and Dating Violence among Latino Adolescents, document the rates of interpersonal victimization among the population, psychosocial functioning, help-seeking responses, and cultural factors that may influence these processes.

JOSEPH SALVATORE (Honors Degree, History, 1995) is currently a playwright/director based in Manhattan. He earned a Master of Fine Arts in Dramaturgy and Directing from the University of Massachusetts at Amherst, and is now on the faculty of the Program in Educational Theatre at New York University, where he teaches courses in acting, directing, Shakespeare, applied theatre, new play development, and theatre pedagogy. Since August 2005, he has served as a Faculty Fellow in Residence in the Third Avenue North residence hall. He also serves as the Artistic/Education Director for Learning Stages, an award-winning, non-profit theater company in southern New Jersey, dedicated to providing artistic opportunities for children and young adults. He was a featured speaker at the Theatre Communications Group National Conference in June 2009. Since 2008, Professor Salvatore has received a Steinhardt School Summer Grant Development Award, a Steinhardt School Research Challenge Grant in Arts and Culture, and an Overall Excellence Award for Outstanding Play in the New York International Fringe Festival. This play, III, will be published in The Best American Short Plays 2008–2009 (Applause Books, 2010). Salvatore also has a book chapter called “Overcoming Fear and Resistance when Teaching Shakespeare,” that will be published in The Routledge International Handbook of English, Language and Literacy Teaching (Routledge, 2010).

ROBERT SMITH (Honors Degree, 1987, Economics & Political Science) is currently a professor of Sociology, Immigration Studies, and Public Affairs at the School of Public Affairs at Baruch College and the Graduate Center, City University of New York. He received a Bachelor of Arts in Economics and Political Science from the University of Delaware, graduating magna cum laude with an Honors Degree. He also earned a Master of Arts and Master of Philosophy in Political Science from Columbia University, as well as a Ph.D. in Political Science at Columbia University. He has worked in the Mexican community in New York and in Mexico for more than twenty years, co-founding the Mexican Educational Foundation of New York to promote educational achievement and leadership in the Mexican community. Currently, he serves as the Lead Faculty in the Baruch College School of Public Affairs, and in the Emerging Mexican Leaders Program. In these roles, he routinely advises Mexican community organizations and leaders. His recent research focuses on seeking to increase the understanding of contemporary migration, and to identify strategic sites of intervention for policy.

ANNA WHITE (Honors Degree, 1997, Anthropology & International Relations) is Co-Facilitator of Global Youth Action on Tobacco, an international network of youth advocates working to counter the tobacco industry. This role is an outgrowth of her work as Coordinator of Global Partnerships for Tobacco Control, a program established in 2000 by the Washington, DC-based corporate accountability group Essential Action, which supports and strengthens international tobacco control activities at the grassroots level by facilitating cross-border projects and campaigns between U.S. and Canadian groups and Asian, African, Latin American, and Central/Eastern European groups. Nearly 500 groups in over 100 countries have been involved with the program during the past decade. Prior to her work with Essential Action, Anna spent a year as a Fulbright Fellow in Senegal, where she conducted research on transnational tobacco companies’ marketing strategies, including their use of U.S. images and themes to falsely promote smoking as the “American thing to do.”
From New York to New Zealand, many alumni of the University of Delaware’s Undergraduate Research Program are engaged in exciting, innovative careers that were informed by their undergraduate research experiences. Below are some featured alumni who have written us to let us know what they’re doing now.

1980–1989

STEVEN CHARNICK graduated in 1988 with an Honors B.S. in Chemical Engineering. While at the University of Delaware he performed simulations of water molecules binding to enzymes that resulted in his first publication in the peer-reviewed literature. Currently, he works in the pharmaceutical industry and his titles have changed frequently. Mr. Charnick considers some of his greatest career accomplishments to be that several of the drugs he has worked on are presently on the market, and several independent research projects that he has completed have resulted in publications and book chapters that are referenced often as standards in the field.

ANNE FORREST graduated in 1981 with a B.A. in Communication. While at the University of Delaware she conducted research on English Language Acquisition of Internationally Adopted Children, traveling within the United States and in Korea for her research. In 1983, she joined the public relations firm Hill & Knowlton Hong Kong, and became its executive director (CEO) in 1985. In 1992, she started her own firm, Forrest International, which grew to offices in five countries before she sold it to the Interpublic Group’s Golin Harris in 2000 and retired at the end of 2002. She currently serves as chair of the Asian division for Golin Harris. Her most important career accomplishments include starting a major career in international public relations at the age of 43, being named a Fellow of the International Association of Business Communicators, being one of the first five individuals named to the International Hall of Fame of the Council of International Public Relations Agencies, and counseling senior Chinese and Asian executives at some of Asia’s largest corporations.

JAMES MACLEOD graduated in 1980 with a B.S. in Animal Science. While at the University of Delaware he engaged in research of the culture of preimplantation mouse embryos with Dr. Paul Meckley in the College of Agriculture. Currently, he is the John and Elizabeth Knight Chair at the Gluck Equine Research Center at the University of Kentucky, where he studies articular cartilage and osteoarthritis. He has also researched the equine genome, analyzing the mRNA transcriptome using RNA sequencing. Professor MacLeod considers his three most important accomplishments of his career to be his contributions to the structural annotation of protein-encoding genes in the equine genome, the identification and characterization of a cartilage-restricted isoform of fibronectin expressed by chondrocytes, and the analyses of gene expression patterns during articular cartilage maturation and repair.

DOUG MANN graduated in 1985 with a B.S. in Civil & Environmental Engineering. While at the University of Delaware he did some work in water wave propagation by creation of a lab model, measuring waves, and comparing them to numerical model results. Mr. Mann worked with Dr. Robert A. Dalrymple of the civil engineering department. Currently, he is a coastal engineer who solves beach erosion and marine engineering problems for municipal clients. Mr. Mann considers one of his most important accomplishments of his career to be his 23 years of continuous engineering service to clients both large and small, in which he finds each project to have its own challenges and rewards.

EDMUND MITZEL graduated in 1987 with a B.A. in Biological Sciences. While at the University of Delaware he worked in the honors program and also received a grant for summer employment. He worked with Dr. DeLeon in genetics. After UD, he went on to work as a research technician at Johns Hopkins School of Medicine. He went back and earned his master’s degree and became a science teacher. Currently, he is a high school administrator. Mr. Mitzel considers three of the most important accomplishments of his career to be his promotion to grade 6 team leader and then magnet coordinator, being promoted to Assistant Principal in 1997 and principal in 2000, and the Patapsco High School and Center for the Arts being awarded one of five national awards for JFK School for Arts Award School of Distinction.

MARGARET O’MALLEY MOORMAN graduated in 1985 with an Honors B.S. in Chemical Engineering. While at the University of Delaware her research was with the Chemical Engineering Department under Professor Michael Klein. They researched the reaction pathways and mechanisms for coal and lignin model compounds (applications in alternative fuels, more efficient fuels, etc.), which led to her senior thesis research and a subsequent publication in the “FUEL” trade publication. Currently retired, she was employed with the Eastman Kodak company in the motion picture division, eventually being promoted to regional sales and marketing manager in charge of the technical side of the business, supporting laboratories and post-production houses that utilized Kodak motion picture film and chemicals in Hollywood, California. Ms. Moorman considers her most important career challenges and rewards.
accomplishments to be designing a re-formulation of the motion picture developer, designing a film development process that produced desired results while saving Eastman Kodak money and minimizing the environmental impact, presenting and implementing new films and chemical processes as they were designed over the years, and leading a Hollywood, California group that supported the labs and post-production side of the business, which included product implementation, problem-solving support, and negotiations with customers. Through it all, the logic and reasoning that was a critical part of her research was applied in every aspect of her career.

LIANE MURTAGH graduated in 1984 with a B.A. in Psychology. While at the University of Delaware she engaged in a few research projects. They included library research for one professor on the psychology of disarmament; running a lab for students on visual perception; and running a lab with a group of other students on motivation and studying at what point students would lie. Currently, she has her own human resources consulting business. Ms. Murtagh considers three of her most important career accomplishments to be becoming one of the first women in the firm she worked for to have a successful, long-term, flexible work schedule after starting her family; getting promoted to manager within that first year; and also starting her own business doing human resources projects from her home.

LAURA NICHOLSON graduated in 1986 with an Honors B.A. in Biological Sciences. While at the University of Delaware she engaged in research in Dr. Milton Stetson’s lab after which she completed a thesis titled, “Melatonin attenuation by beta-adrenergic antagonism in golden hamsters exposed to short days” and earning a Degree with Distinction. Dr. Nicholson completed an MD/Ph.D. at SUNY Buffalo in 1994 and completed a residency in internal medicine at University of Rochester in Rochester, NY. Currently, she is teaching in San Diego at UC San Diego Medical School and in Scripps Clinic Internal Medicine Residency. She is also associate clinical professor of medicine, in which she is the director of resident research and head of the evidence-based medicine curriculum. Dr. Nicholson considers three of her most important career accomplishments to be completing a Ph.D. in Microbiology and Immunology in Dr. Philip LoVerde’s lab at SUNY Buffalo; working as associate program director under Dr. Kelley Skeff in the internal medicine residency at Stanford University; and also using her combination training to become a better clinical instructor, producing the many teaching awards she has received from medical students and residents.

DAN O’CONNOR graduated in 1988 with a B.A. in International Relations. While at the University of Delaware he wrote an honors thesis on the impact of U.S. foreign policy on Western European unification efforts between 1973 and 1987. Most of his research was library-based, but it was also based on work he did as an intern at the Department of State in the summer of 1987. Currently, he is a foreign service officer with the Department of State in the Bureau of Democracy, Human Rights, and Labor. Some of his previous assignments include work as a consular officer in the U.S. Embassy in the Dominican Republic and as the head of the political section in the U.S. Embassy in Nassau, Bahamas. Dr. O’Connor considers three of his most important career accomplishments to be completing his doctorate in international relations in 1997 at American University, co-authoring a 1997 book entitled Send Guns and Money: Security Assistance and
“Quite frankly, my career could not have happened when and how it did were it not for my undergraduate research experiences, particularly my work with Dr. Roger Kobak. Even though at the time I did not realize the full significance of what I had learned, in retrospect it is clear that my undergraduate research experience provided me with critical skills and a growing confidence that enabled me to pursue successfully graduate study. And now as an advisor, professor, and mentor I am frequently reminded of Dr. Kobak’s influence on me.” — Robin Cautin, Psychology, 1993

U.S. Foreign Policy, with his dissertation advisor Duncan L. Clarke and fellow doctoral student Jason Ellis, and also being selected as a foreign service officer with the Department of State in 2001.

LARRY PRINCIPE graduated in 1983 with an Honors B.S. in Chemistry and a B.A. in Liberal Studies from the University of Delaware. He also holds two doctorates: a Ph.D. in Organic Chemistry from Indiana University, Bloomington, and a Ph.D. in the History of Science from Johns Hopkins University. He is currently a professor of the history of science, medicine, and technology, and professor of chemistry at Johns Hopkins University. In 1999, the Carnegie Foundation chose Professor Principe as the Maryland Professor of the Year, and in 1998 he received the Templeton Foundation's award for courses dealing with science and religion. He has also received Johns Hopkins' Distinguished Faculty Award, the Excellence in Teaching Award, the George Owen Teaching Award. In 2004, he was the first recipient of the Francis Bacon Prize, awarded by the California Institute of Technology. Professor Principe is also the co-author of three books, including The Aspiring Adept: Robert Boyle and His Alchemical Quest.

ERIC SCHARPF graduated in 1985 with an Honors B.S. in Chemical Engineering. While at the University of Delaware he engaged in research with advisors Cecil Dybowski from chemistry and Bruce Gates from chemical engineering. His project title was “Xe-129 NMR Characterization of Ni Clusters Supported on NaY Zeolite,” which led to the corresponding publication, “Characterization of NiNa-Y Zeolite by Xe-129 NMR Spectroscopy” in the Journal of Physical Chemistry in 1986. Currently, he is a safety and reliability engineer for Exida, an international engineering consulting firm and adjunct faculty for University of Otago Department of Physics. Mr. Scharpf considers his most important accomplishment of his career to be having the opportunity to work more independently in a less structured environment, where he was able to take responsibility for larger goals and become one of the founding partners in Exida, the company where he has worked for the last ten years, helping it grow into a leading international safety engineering service provider.

GAIL CAMERON SOMODI graduated in 1982 with B.S.’s in both Entomology and Plant Pathology and Plant Science. While at the University of Delaware she studied the relationship between two species of soybeans with Robert B. Carroll in the Department of Plant Sciences. Currently, she is a soil conservation supervisor for county government, where she supervises a conservation planner, works cooperatively with the USDA/NRCS regarding cost share programs/conservation planning for landowners, and assists the local soil and water conservation districts by coordinating district events (Envirothon, land judging, speech contests, and farm tours). Ms. Somodi considers three of her greatest career accomplishments as authoring a paper describing one of the first outbreaks of watermelon fruit blotch in Florida in 1989, co-authoring works on some tomato varieties and breeding lines with various disease resistances released by the University of Florida, and becoming a supervisor.

PAUL SUTTON graduated in 1985 with a B.S. in Chemistry. While at the University of Delaware he engaged in research in inorganic chemistry, aimed at synthesizing an organo-metallic complex for subsequent analysis via X-Ray crystallography in Dr. Arnold Rheingold’s laboratory. Currently, he is an R&D senior scientist working at Americhem, Inc. in Cuyahoga Falls, Ohio. Americhem manufactures custom color concentrates, additive masterbatches, and specialty dispersions for plastics, and where he has the pleasure of supervising the corporate analytical & weathering services laboratories. Mr. Sutton considers three of his most important career accomplishments to be helping to develop the careers of junior-level scientists that he has had the opportunity to work with, coordinating/executing the development of analytical methods to support key products and businesses, and establishing and building professional relationships with laboratories outside of those for which he has worked.

TERRIE ULERY graduated in 1987 with a B.A. in Biological Sciences. While at the University
“Prior to my research with Professor Curtis [in history], my interests within anthropology lay in archaeology. With this research, I realized that living people (or at least ones that were very recently alive!) rather than dead ones were much more interesting to study. My interest in puzzling together how homes and households function (structurally, architecturally, symbolically, spiritually, socially, culturally) I credit entirely to that summer spent in the basement of Kirkbride Hall. I also credit my love for documentary photography and my own extensive use of photography in my ethnographic practice to the lessons learned from WPA photography.” — Alexandra Zirafiroglu, Anthropology, 1993

of Delaware she engaged in research involving reproductive fish physiology. Currently, she is an associate director of project management and drug development at Alexion Pharmaceuticals, Inc., a rapidly growing biopharmaceutical company. Recently, her main focus has been leading the development team for global clinical development of a first-in-class monoclonal antibody drug candidate for cancer. Ms. Ulery considers three of her most important career accomplishments to be that she defined and drove the creation of the first project management position within Alexion Pharmaceuticals; she defined, planned and initiated implementation of GMP procedures and quality systems for manufacturing cutting edge cell therapies; and lastly, she led the preclinical development and initiation of clinical development of a first-in-class monoclonal antibody cancer therapeutic.

1990–1999

REBECCA ALEXANDER graduated in 1990 with an Honors B.S. in Chemistry. While at the University of Delaware she worked with Greg Moe in the Chemistry Department. Ms. Alexander worked to generate a synthetic membrane-spanning peptide, using molecular biology techniques. Currently she is associate professor of chemistry and Robert P. and Debra Lee Faculty Fellow at Wake Forest University in Winston-Salem, North Carolina. She teaches primarily biological chemistry, and has a biological chemistry research program involving undergraduates and graduate students. Dr. Alexander is also co-director of WakeForest’s URECA (Undergraduate Research and Creative Activities) Center, which she helped found two years ago to promote and celebrate scholarly activities carried out in collaboration between faculty and undergraduates. Professor Alexander considers her three most important accomplishments of her career to be developing undergraduate and graduate curricula in biological chemistry, receiving an NSF CAREER award, and establishing the Wake Forest URECA Center.

PATRICIA BANNAN graduated in 1994 with a B.S. in Dietetics. While at the University of Delaware she did an undergraduate research project that looked at Asian eating habits and how Asian students adapted to American food upon arriving in the United States. Currently, she works in nutrition and health communications. Ms. Bannan develops news segments for television stations, writes articles for magazines, and serves as a consultant to and spokesperson for public relations agencies and industry groups nationwide. Ms. Bannan considers three of her most important career accomplishments to be reporting for CNN and being a nutrition expert on the “Today” Show, getting her master’s at Tufts University in nutrition communication, and writing a book titled Eat Right When Time is Tight, which will be available this coming fall.

JENNIFER BRIGHTMAN graduated in 1992 with a B.A. in Psychology. While at the University of Delaware she engaged in several semesters of research with Kim Fromme, in a lab in Wolf Hall that was outfitted like a bar. Part of her research was about participating in risky behaviors after drinking. She also focused on subjects feeling the effects of alcohol versus a placebo in a bar atmosphere, linking subjects to biofeedback machines to record physiological responses after subjects received cues that led them to believe they were drinking. She also engaged in research with Robert Eisenberger on reciprocation ideology. Currently, she is the senior development officer for Upper Canada College, a boys K-12 day/boarding school. Ms. Brightman considers three of her most important career accomplishments to be having a first job with varied experience that gave her access to working at the Wharton School at the University of Pennsylvania, overseeing the largest annual fund total for a Canadian independent school, and cultivating relationships with prospects and donors for more than ten years at Upper Canada College, resulting in major gifts to the school.

ROBIN CAUTIN graduated in 1993 with B.A.’s in both Psychology and Philosophy. While at the University of Delaware she was under the mentorship of Dr. Roger Kobak, professor of psychology, in which she studied the
role of attentional processes in a model of self-regulation, and applying the model to understanding symptom-reporting in college women. Currently, she is an associate professor and chair of psychology at Manhattanville College. Professor Cautin considers two of her most important career accomplishments to be receiving the J.R. Kantor Fellowship from the Archives of the History of American Psychology in 2003, and receiving the Early Career Award from the American Psychological Association’s Division 26 (History of Psychology) in 2008.

MALKIEL CHOOSED graduated in 1997 with Honors B.A.’s in both English and Philosophy. While at the University of Delaware he did research on two separate occasions. First, he was a research assistant to Dr. Lucia Palmer of philosophy and completed a project on Nietzsche. Second, he completed his senior honors thesis on a comparative analysis of the literary theories implicit in the work of poets T. S. Eliot and Gloria Anzaldua. Currently, he is an associate professor of English and the coordinator of the writing program at Onondaga Community College in Syracuse, New York. Dr. Chooseed considers three of his most important career accomplishments to be successfully defending his Ph.D. in the spring of 2007, being awarded tenure in the fall of 2009, and winning the SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities in 2009.

DRYW DWORSKY graduated in 1998 with an Honors B.A. in Psychology. While at the University of Delaware he was heavily involved in the human emotions lab with Dr. Carroll Izard. Throughout his college career he was involved in a number of projects, with most focusing on the Head Start project. Currently, he is an assistant professor in the Psychology department at Bowling Green State University in Ohio. He is also the director of the Psychological Services Center, the training clinic for their clinical psychology Ph.D. students. In addition, he has developed a specialization in sports psychology and presently consults with a number of elite athletes and athletic teams. Professor Dworsky considers three of his greatest career accomplishments to be accepting an assistant professorship and becoming director of a vibrant mental health clinic at the age of 27; having provided supervision for well over 50 graduate students who have gone on to contribute to the field of psychology; and also helping to illuminate the importance of diversity by teaching courses on the subject, chairing his departmental Diversity Committee, and sitting on the Arts & Sciences College Diversity Committee.

ALISSA FARIS graduated in 1999 with a B.S. in Biological Sciences. While at the University of Delaware she engaged in cancer research (molecular biology) with Dr. Mary Beth Miele. Currently, she is a patent attorney in the field of biotechnology.

JAMES HELMS graduated in 1997 with a B.S. in Visual Communications. While at the University of Delaware he engaged in research with Ray Nichols, director of the visual communications program. Mr. Helms’ thesis was titled “Think Small: the Stories behind Volkswagen Advertising.” Currently, he is the creative director at Slingshot in Dallas, Texas. Mr. Helms considers his most important accomplishments as being featured in Graphis magazine’s “new Talent” annual which is a hardback showcase of student work worldwide, and being recognized with two gold pencils by the prestigious One Show for work done for the Pennsylvania Department of Public Welfare. Over the past 12 years, he has been trusted to shape brands of all sizes for nearly every industry, from beer to healthcare to cell phones to belts.

THEODORE KITTILA graduated in 1996 with an Honors B.A. in International Relations. While at the University of Delaware he wrote a senior thesis titled, “Franco-German Relations: The Croatian Question.” Currently, he is a lawyer in Wilmington, Delaware, practicing corporate litigation as counsel to his firm, Elliott Greenleaf. His practice area is corporate and complex commercial litigation. Mr. Kittila considers two of his most important career accomplishments to be receiving a Fulbright Scholarship to study history in Germany after graduating from the University of Delaware, and also having the opportunity to practice law in Manhattan and Delaware, in which he has represented some very interesting clients in “bet the company” litigations.

RYAN MARTIN graduated in 1995 with an Honors B.S. in Mathematics. While at the
University of Delaware he did research in the Department of Mathematics under the direction of Felix Lazebnik and Wenbo Li. The title of his senior thesis was “Minimum Expected Time of Random Walks on Rooted Trees.” Currently, he is an Associate Professor at Iowa State University in the Department of Mathematics. Professor Martin considers three of his most important accomplishments of his career to be becoming a professor at Iowa State, being promoted to Associate Professor, and obtaining substantial research grants from NSF and NSA.

J. MICHAEL SAUER graduated in 1991 with an Honors B.S. in Chemistry. While at the University of Delaware he did research in the Chemistry Department with Dr. Jim Damewood, doing both synthetic organic chemistry of an iron-chelating agent and computational modeling to determine the lowest energy conformation. After graduating he went on to get a Ph.D. in molecular biophysics from the University of Pennsylvania, Biomedical Graduate Studies, and then a Post-Doctorate in structural bioinformatics at Fox Chase Cancer Center in northeast Philadelphia. In 2000, he moved to San Diego to work at Structural GenomiX, Inc., which later became SGX Pharmaceuticals, then was acquired by Eli Lilly in August 2008; he has been an Eli Lilly employee since September 2008. Currently, he engages in a mix of structural bioinformatics and project management; he also manages the informatics and LIMS database development group, and is project leader for one of four large-scale structural genomics centers in the United States. Dr. Sauder considers three of his most important accomplishments of his career to be designing constructs that resulted in over 750 protein crystal structures in the Protein Data Bank by the end of the second phase of the Protein Structure Initiative, contributing to dozens of proprietary human protein structures that are being used for structure-based drug design in several pharmaceutical companies, and working hard to ensure that as much experimental data and materials as possible are being made available in the public domain through the PepDB (the Protein Expression and Purification Crystallization Database) and the Protein Structure Initiative Material Repository at DNASU.

AMY SHORE is Director and Assistant Professor of the Cinema and Screen Studies program at the State University of New York at Oswego. Dr. Shore developed one of the first open admissions, public university film programs in New York State. This three-year-old program currently enrolls more than 120 majors who produce creative and scholarly works in the field of cinema. Her publications include an article in the forthcoming collection on feminist film history, “Reclaiming the Archive,” which includes work by preeminent scholars in the field as well as “new voices” (Dr. Shore is in the “new voices” category). She is also co-owner of Heimes Communications, a communications company that specializes in serving public education and nonprofit organizations. Her recent accomplishments in this company include helping to develop and win a $10.5 million federal Teacher Incentive Fund grant for a consortium of 10 New York City public charter schools.

LEONARD STARK graduated in 1991 with a B.A. in History. While at the University of Delaware he completed two undergraduate theses. The first was in sociology/women’s studies during his sophomore year. His advisor was Laura O’Toole of the Sociology Department. The examiners were Gerald Turkel, Cynthia Robbins, and Donald Unger. The second was in political science in his senior year. Mr. Stark worked with Joseph Pika of the Political Science Department. His examiners were Professor Pika, James Soles, and Ralph Edine. Currently, he is a United States Magistrate Judge for the District of Delaware. Mr. Stark considers the three most important accomplishments of his career to be getting appointed a U.S. Magistrate Judge for the District of Delaware, being appointed an Assistant United States Attorney for the District of Delaware, and writing a book based on his Oxford thesis which is about party leadership elections in British political parties.

RAJESH TULI graduated in 1993 with an Honors B.S. in Chemical Engineering. While at the University of Delaware he engaged in solar cell research (Selenization of CuIn bilayers) with T.W. Fraser Russell. Currently, he is a radiologist stationed in Iraq.

JILL VENTON graduated in 1998 with a B.S. in Chemistry. While at the University of Delaware she worked with Murray Johnston on chemistry research and also was involved in the Imperial College research exchange. Currently, she is an assistant professor of chemistry at the University of Virginia.
CHRISTIAN WRIGHT graduated in 1993 with an Honors B.A. in Political Science. While at the University of Delaware his research mainly focused on issues of constitutional law where he used a great deal of source material from the founding of the country to construct a narrative, using it as the basis for his honor’s thesis on presidential power in U.S. foreign policy. He is currently a partner at the law firm of Young Conaway Stargatt & Taylor, LLP in Wilmington, Delaware, where he practices corporate governance and commercial litigation. He considers the most important accomplishments of his career as becoming a partner at Young Conaway, being appointed by the Delaware Supreme Court to serve on the Board of Bar Examiners, being appointed by the governor to serve on the Delaware Heritage Commission, and serving as an attorney guardian ad litem, through the Delaware Office of the Child Advocate, for children involved in abuse, neglect, and termination of parental rights cases in Family Court.

ALEXANDRA ZAFIROGLU graduated in 1993 with a B.A. in Anthropology. While at the University of Delaware, she researched, analyzed, and cataloged Works Progress Administration photographs under the guidance of Professor James Curtis in the Department of History, spending long hours absorbed in rolls of microfilm. She is currently a cultural anthropologist for Intel Corporation’s Digital Home Group, where she conducts exploratory, global ethnographic fieldwork on how people live, what they value, and how they do (and do not) use various technologies in their daily lives. Her research has taken her to Hong Kong, Taiwan, Japan, Korea, Indonesia, India, France, Sweden, the United Kingdom, and the United States. Although she is half-Swedish and thus programmed not to brag, Alexandra considers her three most important accomplishments to be receiving a Fulbright Scholar award, receiving various awards at Intel Corporation for her work with various populations, and driving an appreciation and understanding of the importance of television’s value with global consumers within a corporation that previously prepared to believe that TVs should simply turn into PCs with larger screens.

2000–2009

HEATHER BALIKO graduated in 2005 with a B.S. in Wildlife Conservation. While at the University of Delaware she studied in the Department of Entomology and Wildlife Ecology under Dr. Doug Tallamy. Her research topic was insect herbivory on native vs. non-native plant species. Currently, she is working as an educator/camp coordinator for a science and art museum in Charleston, West Virginia, called The Clay Center for the Arts and Sciences of West Virginia. She develops and teaches science curriculum including topics such as chemistry, biology, ecology, and engineering. Ms. Baliko considers three of her most important career accomplishments to be teaching children the importance of conservation and respecting the environment, becoming the assistant manager of the education department at a no-kill animal shelter in southern California, and also teaching underprivileged children about science.

ERINN BATYKEFER graduated in 2004 with Honors B.A.’s in both English and Art History. While at the University of Delaware she combined her work in both majors to research the life and works of Vincent van Gogh and translated it to create a lyrical series of poems about art and madness. After graduation, she received her MFA from the University of Wisconsin, and also received a post-graduate fellowship at Bucknell University. Ms. Batykefer is currently applying to the master’s program at the School of Library and Information Studies at the University of Wisconsin. Her three most important accomplishments in her career are winning the Martha Meier Renk Distinguished Poetry Fellowship at the University of Wisconsin, winning the Benjamin Saltman Poetry Prize at Red Hen Press for her book Allegheny, Monongahela, and having one of her poems featured on broadsides distributed around Pennsylvania as part of the 2009 Public Poetry Project through the Pennsylvania Center for the Book in State College.

ERIC BENNING graduated in 2009 from the University of Delaware with an Honors B.S. in Chemical Engineering. He engaged in research through the Chemical Engineering Department dealing with magnetorheological fluids. He worked with Dr. Paula Vasquez and Dr. Eric Furst. Currently, Eric is working in Wilmington, Delaware, where he practices corporate governance and commercial litigation.

“...It was during my undergraduate research project that I first began reading about Haitian Vodou, which has been my primary academic interest ever since. Moreover, I would say that my undergraduate research taught me to be a more resourceful and clever user of libraries—a skill that has subsequently earned me both work and success as an academic. It was, moreover, a very pleasurable introduction to research, which I think encouraged me to see research as enjoyable rather than grueling.” — Adam Michael McGee, English, 2004
as product development engineer and sales associate for Acrymax Technologies, Inc., which is a small chemical coatings company.

JAMES CATELLA graduated in 2003 with B.A.'s in both Criminal Justice and Political Science. While at the University of Delaware his research included assisting Professor Sue Davis with updating a new version of her constitutional law text book, focusing on the chapter dealing with the disputed 2000 presidential election, the case of Bush v. Gore, and the Equal Protection Clause. He also completed a senior thesis entitled, “The Significance and Projected Impact of Bush v. Gore,” which analyzed the 2000 election and attempted to anticipate the impact of the Supreme Court’s ruling. Currently, he is a congressional aide for U.S. Senator Olympia Snowe (R-ME). In this role, he serves as the Senator’s primary advisor on trade policy and foreign relations matters. Before joining Senator Snowe’s office, he worked for U.S. Congressman Michael Castle (R-DE) for six years as both a policy advisor and campaign manager. Mr. Catella considers some of his greatest career accomplishments to be having the opportunity to work with leaders in Delaware to overturn plans to close Delaware’s Air National Guard Base as part of the Base Realignment and Closure process in 2005, and assisting Congressman Castle, as a congressional staffer, in passing key legislation to reform wasteful government contracting practices and improve national security.

MELISSA DAY graduated from the University of Delaware in 2009 with an Honors B.S. in Chemical Engineering. She researched carbon doping of titanium dioxide thin films for hydrogen generation under the direction of Ismat Shah. Currently, Ms. Day is a first-year graduate student pursuing her Ph.D. at Carnegie Mellon University, and has begun researching atmospheric science and climate change modeling, advised by Spyros Pandis. Ms. Day considers her three most important accomplishment of her young career to be finishing an undergraduate thesis, graduating with honors, and surviving her first graduate school semester, but she can only hope that the best is yet to come.

JUSTIN R. DIANGELO graduated in 2002 with an Honors B.S. in Biological Sciences. While at the University of Delaware he engaged in research centered around understanding the role of the protein Pop1/Bves in controlling the development and formation of the heart. Specifically, he performed experiments aimed at generating antibodies to Pop1/Bves and using them to assess the expression and localization of this protein throughout heart development. Currently, he is a postdoctoral research fellow at the University of Pennsylvania School of Medicine. Dr. DiAngelo considers three of his greatest career accomplishments to be obtaining his Ph.D. in Cell and Molecular Biology from the University of Pennsylvania, being selected to give an oral presentation on his graduate research at two national scientific meetings during his last year of graduate school, and also being awarded the Undergraduate Research Award from the Department of Biological Sciences at UD at graduation.

JOSH FIGUEROA graduated in 2000 with a B.S. in Chemistry. While at the University of Delaware, he was engaged in inorganic chemistry research under the supervision of Professor Arnold L. Rheingold in the Department of Chemistry and Biochemistry. He was an undergraduate researcher for three years (sophomore through senior year) and participated in the Science and Engineering Scholars program for two years (junior-senior year). Currently, he is an assistant professor of inorganic chemistry at the University of California, San Diego. He has been at UCSD for two and a half years, where he leads a research team focused on the synthesis of new compounds for small molecule activation and alternative energy applications, and where he teaches undergraduate and graduate level courses in inorganic chemistry. Professor Figueroa considers some of his greatest career accom-
accomplishments to be receiving the 2005 Davison Thesis Award for Best Thesis in Inorganic Chemistry at the Massachusetts Institute of Technology, receiving a National Institutes of Health (NIH) Postdoctoral Fellowship to work at Columbia University (2005-2007), being appointed as a faculty member at the University of California, San Diego, which is a top 15 national program, receiving the 2010 National Science Foundation CAREER Award for his independent research, and having many really cool research papers in print.

Sander Frank graduated from the University of Delaware in 2009 with an Honors B.S. in Biological Sciences. He did his undergraduate research in prostate and cancer development with Dr. Sikes. Currently, Mr. Frank is in a Ph.D. program at Michigan State University for genetics. He plans to continue to do research in either prostate or breast cancer. Mr. Frank considers the three most important accomplishments of his young career to be graduating from college, writing a senior thesis, and receiving a first year graduate school fellowship.

Julie Goodwin graduated in 2002 with an Honors B.A. in English. While at the University of Delaware she engaged in research with Professor Pauly and did research on Zane Grey, concentrating on his works and the culture of 1920s America. Currently, she is an attorney focusing on estate planning/administration and non-profit work.

Erin Grey graduated in 2003 with an Honors B.S. in Biological Sciences. While at the University of Delaware she studied the swimming behavior of crab larvae under the supervision of Dr. Charles Epifanio and the Graduate College of Marine Studies. Currently she is a postdoctoral research fellow at Tulane University in the Department of Ecology and Evolutionary Biology. Dr. Grey considers three of her most important accomplishments of her career to be obtaining her Ph.D. from the University of Chicago, getting an EPA STAR fellowship, and receiving two NSF graduate research grants.

Erin Hill-Burns graduated in 2003 with a B.S. in Biological Sciences. While at the University of Delaware she worked with Dr. Robert Hodson and Dr. David Usher on sequencing the Apolipoprotein A-II gene in the red-eared slider turtle for comparative studies with humans and other species. Currently, she is a postdoctoral researcher at SUNY Stony Brook. Dr. Hill-Burns considers three of her most important career accomplishments to be starting graduate school in 2003 at Cornell University, funded by a Cornell Presidential Genomics Fellowship, giving talks about her research at the Society for Molecular Biology and Evolution and the Drosophila Research conferences during the years of her Ph.D., and graduating from Cornell with a Ph.D. in Genetics.

Ray Iglay graduated in 2003 with a B.S. in Entomology and Wildlife Conservation. While at the University of Delaware, he researched the hatching periodicity of Asian shore crabs with Dr. Charles Epifanio at the College of Marine Studies in Lewes, investigating the effects of forest fragmentation and isolation on the movements of Eastern box turtles with Dr. Jacob Bowman, and traveling to Uganda with Dr. Doug Tallamy to research the assassin bug Rhinocoris tristis. He received a master’s degree from Mississippi State University in Wildlife and Fisheries Science, and is currently completing his Ph.D. in Forest Resources at Mississippi State University. He considers his most important career accomplishments to have earned a Bachelor’s Degree with Distinction in Entomology and Wildlife Conservation from the University of Delaware, engaging in study abroad experiences in five countries, earning an M.S. from Mississippi State University, and serving in a Research Associate I position at one of the top wildlife schools in the nation.

phase behavior of therapeutic antibodies toward the development of novel formulations.

Dr. Johnson considers three of his most important career accomplishments to be receiving the Science and Math prizes upon graduation from St. Andrew’s, his honor’s thesis work and graduation from UD, and also his Ph.D. thesis and graduation from the University of California at Berkeley.

**KYLE JOHNSON** graduated in 2009 with an Honors B.S. in Chemistry. While at the University of Delaware he engaged in research with Dr. Douglass Taber of the Chemistry Department on the total synthesis of a fatty acid metabolite. Currently, he is a graduate student in the Chemistry Department of the University of California, Irvine. Mr. Johnson considers his three most important accomplishments of his career to be earning his Honors Degree with Distinction from UD, his successful summer internship at Schering-Plough, and joining a research group at the University of California, Irvine.

**JENNIFER LIPSCHLTZ** graduated from the University of Delaware in 2004 with a B.S. in Biological Sciences. She engaged in research with Dr. Lafferty on cell physiology. Currently Ms. Lipschultz is a physical therapist. Ms. Lipschultz considers three of her most important accomplishments of her career to be positively impacting the quality of life of others, being active in society, and serving as a role model for the younger generations.

**SHAUN LYNCH** graduated in 2009 with an Honors B.A. in Anthropology. While at the University of Delaware he wrote an honors thesis that centered on the research he conducted during the summer of 2008 in the Summer Scholars Program. His research determined how mobile the inhabitants were at an archaeological site called Dunlap-Salazar, which is a pithouse settlement in south-central New Mexico dating to the first millennium AD. This project was used to help his adviser better understand village formation in this region of the American Southwest. Currently, he is planning to participate in an archaeological excavation on the Yucatan Peninsula in Mexico for seven weeks this spring. He has applied to graduate school and plans on pursuing a Ph.D. degree in Anthropology in the fall of 2010. Mr. Lynch considers three of his most important career accomplishments to be graduating from the University of Delaware with an Honors Degree with Distinction, winning the social sciences portion of the Summers Scholars Program competition, and also being accepted to present a paper based on his research at the Society for American Archaeology conference in St. Louis.

**ADAM MARMON** graduated in 2005 with a B.S. in Exercise and Sports Science. While at the University of Delaware he coordinated a multi-site retrospective evaluation of medical charts from children with back injuries in Philadelphia and in Kansas City. He used this work as the basis for his senior thesis, “A Retrospective Analysis of the Etiologies of Spine Fractures and Spinal Cord Injuries in the Pediatric Population.” Dr. Marmon received a master’s degree in exercise science from the University of Delaware, and a Ph.D. in biomechanics and movement science from the University of Colorado at Boulder. Currently, Dr. Marmon is a postdoctoral Fellow in the Department of Physical Therapy at the University of Delaware, where he works with Professor Lynn Snyder-Mackler researching factors affecting involving individuals who undergo total knee replacements due to osteoarthritis. Dr. Marmon considers his three most important career accomplishments to be graduating cum laude with distinction from the University of Delaware, harvesting and plastinating...
“Undergraduate research definitely showed me another potential career path. Doing research and a thesis helped prepare me for the idea that I could go to graduate school…and working with Dr. Shah also bolstered my aspirations of working on something that would be environmentally beneficial.” — Melissa Day, Chemical Engineering, 2009

Adam McGee graduated in 2004 with an Honors B.A. in English. While at the University of Delaware, his research project gave him the opportunity to work on his undergraduate thesis, which was a book of poems. Mr. McGee read poems by many mystical poets and writers to understand better how they expressed their mysticism in their writings, then he tried to utilize those techniques in his own writing. Currently, he is a doctoral student in Harvard University’s Department of African and African American Studies. Mr. McGee considers three of his most important accomplishments so far to be earning a Master of Theological Studies from Harvard Divinity School in 2007, having his scholarly article “Constructing Africa: Authenticity and Gene in Haitian Vodou” published in the Journal of Haitian Studies, and producing and hosting the first public Haitian Vodou service to ever occur at Harvard University in the spring of 2007.

Karen McClelland graduated in 2003 with a B.S. in Political Science. While at the University of Delaware she worked with Matthew Hoffmann, Ph.D. in Political Science. They looked at agent-based modeling of social norms. In her own research, she conducted a study on voting behaviors among college students. Currently Dr. McClelland is a research analyst at a financial association in the Washington, D.C. area. Ms. McClelland considers her three most important accomplishments of her career to be working on one of the most sought after reports of the association members, thriving in the field in Washington, D.C., and also working hard through the ranks by starting out as an assistant and becoming an analyst.

Kelsey Paras graduated in 2009 with an Honors B.S. in Entomology. While at the University of Delaware she studied the dispersal behavior of Rhinoncomimus latipes, the biological control agent of mile-a-minute weed Pericaria perforata under the guidance of Dr. Judith Hough-Goldstein. She looked at the differences between male and female weevils in their preference to disperse or aggregate and also studied what factors (i.e. high populations, deteriorating host plant) led to the dispersal of the weevils. Currently, she is working on her MS in Entomology at Oklahoma State University under the guidance of Dr. Michael Reiskind, where she is studying dog heartworm Dirofilaria immitis. Her two major objectives for her thesis are to investigate which mosquito species transmit heartworm disease and to determine the prevalence of dog heartworm in the wild canid population of coyotes. Thus far, Ms. Paras considers two of her most important accomplishments to be successfully defending her senior thesis and getting accepted into graduate school.

Matthew Richardson graduated in 2002 with a B.S. in Entomology. While at the University of Delaware he researched obtaining and using growing degree-days to accurately predict ornamental plant pest populations with Dewey Caron. Currently, Dr. Richardson is a postdoctoral research associate at the University of Illinois at Urbana-Champaign. Dr. Richardson considers his three most important accomplishments of his career to be earning his Ph.D., publishing twelve first-authored, refereed papers, and self-funding his doctoral research through competitive grants.

Susan Sanford graduated in 2002 with B.A.’s in both International Relations and Spanish. While at the University of Delaware, during her junior year, she received a grant to study democracy in the Andes, specifically Peru, in order to discover why democracy was not synonymous with social justice. Currently, she works on the Colombia Desk for the U.S. Department of State, where she is responsible for human rights and political-military issues affecting our bilateral relationship with the country. Ms. Sanford considers her most interesting career highlights so far to be briefing former Secretary of State Condoleezza Rice in advance of her trip to Colombia with former President Bush, and briefing former Secretary of Commerce Carlos Gutierrez and former Secretary of Agriculture Ed Schafer before they led a Congressional delegation to Colombia.

Katelyn Uehling graduated in 2009 with an Honors B.A. in Art Conservation. While at the University of Delaware she worked with Dr. Vicki Cassman for her thesis, “Building a Relationship Between a University and Its Surrounding Community: The Community Remembrance Project Revisited.” Currently, Ms. Uehling is a paper conservation technician at the Conservation Center for Art and Historic Artifacts. Ms. Uehling considers her most important accomplishments to be being hired in a limited career field after graduation, defending her honors thesis, being presented with the David J. Towman Art Conservation Award and being asked to speak at Commencement.
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Preserving and disseminating the work of undergraduate students is vital to the development of the Undergraduate Research Program. Beginning in May 2009, the URP established, with the help of the University Library, the Undergraduate Research Program’s Senior Thesis Collection, an online archive that provides permanent access to the work of senior thesis students. The theses are available full text online, are fully searchable via Google and Google scholar, and all senior thesis authors retain copyright of their work. To browse the collection of senior theses in the University’s online archive, visit the Undergraduate Research Program’s Web site and look under the heading “Senior Theses.”

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Unidel Foundation
University of Delaware Research Foundation

Other Contributors
Dr. Carolyn M. Acheson
Deborah Allen
David A. Baker
Andrew Burns and Erin Hill-Burns
Robert and Cindy Denemark
Brian McGonigle
Deborah A. Hill
Dr. Jon D. Griffiths
Dr. Diane L. Griffiths
Stephen Grumble
Eliete Grumble
Mr. and Mrs. H. Joseph Johnson
Burnaby Munson
Michael Nagle
Barbara Nagle
Sarah Pattison
Joseph Querica
Scott Sabol
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Cynthia Tallamy
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E. I. du Pont de Nemours and Co.
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Hellen Pattison Fund
Howard Hughes Medical Institute
Montell USA, Inc.
National Science Foundation
Northeast Chemical Association
State of Delaware
Hershey Foods Corporation
VWR International
Zeneca Pharmaceutical

Acknowledgements
We would like to thank the following people for their support:
Havidán Rodríguez
Lynnette Overby
Meg Meiman
Joan Bennett
Burnaby Munson
Justine Johnson
Mary Ann Null
Tracy Bryant
Christina Jones
Gail Armstrong

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