

A man with short dark hair, wearing a light pink button-down shirt, is smiling and looking at a small black mobile phone he is holding with both hands. The background is a vibrant, abstract pattern of colorful, interconnected shapes resembling a molecular or cellular structure, with colors ranging from yellow and orange to blue and purple. In the top right corner, there is a blue rectangular box containing the University of Delaware logo and the title 'MESSENGER' in large, bold, yellow letters.

UNIVERSITY OF
DELAWARE Volume 14, Number 1/2005

MESSENGER

***Targeting tumors with
nanoscale explosions/18***
***Balaji Panchapakesan opens a
new front in the war on cancer.***

KATHY F. ATKINSON



In this issue

UNIVERSITY NEWS

HEARD ON THE GREEN.....2
 NEWEST FRANCIS ALISON AWARD.....10
 MARY HEMPEL REMEMBERED..... 11
 BETWEEN THE COVERS..... 11
 SUSAN STROMAN
 HONORED ON CAMPUS.....12
 BLOGGING CLASS.....14
 ADVANCED NURSING PROGRAM..... 15
 HONORS AND ACHIEVEMENTS..... 17

FEATURES



ON RESEARCH.....18

REPORT OF PRIVATE SUPPORT.....35



FIGHTIN' BLUE HENS TODAY.....75

PARENT TIMES.....100

ALUMNI STORIES



JEWELRY FIT FOR A MUSEUM.....29



ROCK CLIMBING CULTURE.....30

HIP-HOP JOURNALIST.....31



SANTA BABY'S BUSIEST MONTH.....32

ALUMNI BAND'S SENIOR TRUMPET.....33

ALUMNI NEWS

HOMEWORD.....103
 KRISTI KIICK.....13
 CLASS NOTES.....108

COVER BY BARBARA BROGE

Heard on The Green

WHERE IN THE WORLD ARE UD STUDENTS?

The University is ranked No. 1 in study abroad participation among the nation's public institutions of higher education, according to a report by the Institute of International Education (IIE).

The report, released in November and based on statistics for the 2003-04 academic year, evaluates study abroad participation as a percentage of undergraduate degrees conferred at doctoral research institutions. In that category, UD ranks first among public universities and 12th overall, with 32.1 percent participation.

Georgetown University, a private institution, had the highest percentage of participation at 64.3, followed by fellow private institutions Dartmouth College (53.3), Pepperdine University (52.4) and Duke University (50.7)

Among the top 20 universities in percentage of participation, UD ranks fourth overall—after Michigan State, Boston and Georgetown universities—in the total number of students taking part in study abroad, with 1,303. The University's numbers are even higher for 2004-05, with 1,477 students studying abroad, Provost Dan Rich says.

"The provision of study abroad opportunities for University of Delaware students is a high priority," President David P. Roselle says. "We are very grateful to the faculty who accompany the



LAURA DEVENNEY

Laura Devenney, CHS '05, won the Center for International Study's 2004-05 photo contest for this photo of UD students on a mountain in New Zealand.

students on study abroad trips, and we believe that their participation is a primary reason for the success of our programs.

"The University is deeply indebted to the donors who have made possible increases in the number of study abroad scholarships. However, we recognize that additional scholarship support is a key issue for there to be further growth in the number of students who participate."

UD pioneered the concept of study abroad, offering the first U.S. program in 1923, when eight students sailed to France for a year of study. This school year, the University is offering more than 70 programs in numerous academic subjects and 35 countries. With a

milestone 2003 program that traveled to Antarctica, UD students now study in all seven continents.

"Our objective is to make the opportunity to study abroad available and affordable to all UD students," Rich says.

The report was part of Open Doors 2005, an annual survey on international education published by the IIE with funding from the U.S. Department of State's Bureau of Educational and Cultural Affairs. The survey shows that U.S. students are heading abroad in record numbers, with an increase of 9.6 percent over the previous year of the study. More information is available on the web site [www.opendoors.iienetwork.org]. ♦

STUDENTS CREATE NICHE GARDEN

Even Winterthur Museum, famed for the beauty of its extensive gardens, has areas that are more utilitarian than inspired. That is until Carol Krawczyk, assistant professor of plant and soil sciences, and students in her landscape design and landscape construction details classes worked their magic on one such location and created a delightful garden for GardenFair weekend, held Sept. 16-18.

The site was a combination barn/garage with an asphalt driveway, which was transformed in a few days' time into a delightful shade garden retreat.

Krawczyk was approached this summer to create "Three Gardens of the Piedmont" for DuPont, using the company's GreenVista Products—a sunshine garden, a

waterside garden and shade garden, which is the demonstration garden.

Krawczyk drew up the plans and then she and her students began implementing the shade garden over a three-day period. "It was a real opportunity for active learning for my students—translating a paper plan into actuality and creating and learning what is involved in creating a garden," she says.

The asphalt driveway was turned into a flagstone patio. Krawczyk located a huge hollow tree stump on the Winterthur grounds, which was moved to the site and became the focal point of the patio. Netting covered the pond to deter birds from fishing expeditions. A large variety of plants and shrubs edged the



GREG DREW

Carol Krawczyk, assistant professor of plant sciences, left, and student Chris Morrow work on a shade garden retreat at Winterthur Museum.

patio, and a walkway was constructed. ♦

HUNDREDS JOIN 'STOP THE HATE MARCH'

More than 300 students from across campus took part in a "Stop the Hate March," a University-wide awareness-raising event held Nov. 1 in response to recent hate crimes taking place on and around campus.

Organized by the Office of Residence Life and facilitated by several campus groups—including La Raza, SAFE (Students Advocating for Freedom and Equality) and MSN (Minority Student Network)—the event began with brief candle-lighting ceremonies as students from residence halls congregated in common areas, lit each others' candles and marched en masse to the Trabant University Center Patio to participate in the rest of the evening's educational and awareness-building events.

Reports of a serious assault and several criminal mischief incidents on campus, including several instances of racist and anti-Semitic graffiti on walls, first led to an Oct. 20 letter sent by UD President David P. Roselle to the University community stating that UD "must and will have a zero tolerance for hate."

"There is no place at the University of Delaware for those whose credo is meanness and whose method is intimidation. Those who



KEVIN QUINLAN

engage in acts of hatred and bias-motivated threats and behavior will be confronted, prosecuted and expelled from our community," Roselle wrote in his letter.

As part of a developing University-wide campaign, a web site also has been created to offer contact information for reporting hate crimes, [www.udel.edu/PR/zerotolerance].

Students who took part in the march voiced their concerns.

"I know people who have been victims of hate crimes, and I want to show my support," Tya Pope, a

junior political science and women's studies major from Milford, Del., said. "I think that by taking a stand we're showing that we know what's going on and are not going to let it slide. Marching shows numbers, unity and solidarity, and there are also many groups on campus who are taking a stand."

Billy Collins, a senior English major from New Castle, Del., who is also involved in the campus gay rights and awareness group, HAVEN, echoed this sentiment. "In the past several years, the campus has seen an increase in the number

of hate crimes," he said. "I don't have any theories for why that is, but this march shows that students are taking a stand against such crimes."

As students from all corners of campus arrived in groups of 50 or more, chanting peace slogans, bearing candles and waving handmade signs denouncing hatred, the message outside the Trabant University Center was clear: Crimes of hate will not be tolerated or ignored on campus.

"I think it's a good idea to send a very clear message that this sort of behavior cannot go any further," Michal Masango, an MBA student from Cameroon, said. "If you sit back and allow it to go on without taking a firm stand, it creates a breeding ground for more of the same behavior," she said.

"I think combating hate and hate crimes starts at a personal level," Jacqueline Winslow, a graduate student in communication from Newark, said. "I work in the Office of Residence Life, and I know there are a lot of opportunities for students to educate themselves on ways to handle differences and learn tolerance. It is very hard to hate someone once you make an effort to get to know and understand him or her." ♦

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UD NAMED TO ELITE TRUMAN GROUP

With two current Truman Scholars, UD has not just one, but two more named scholars than many prestigious universities throughout the country, Louis Blair, executive secretary of the Truman Scholarship Foundation, said when he presented Truman Scholarship Honor Institution Award at a University awards ceremony in October.

Blair said that every school has talented people, but only schools with an exceptional president and faculty become a Truman Honor Institution.

Congress established the Truman Scholarship Foundation in 1975 in memory of Harry Truman, the 33rd president. Since 1977, 2,328 Truman Scholarships have been awarded nationwide.

With 15 Truman Scholars selected at UD since the foundation began, the University joins only 49 other institutions that have received the honor in the foundation's 30-year history.

Senior Dalit Gulak, a foreign languages and literatures major and one of two UD students named a Truman Scholar in 2005, was on hand for the ceremony. The other 2005 Truman scholar is senior Tom Isherwood, an international relations major. ♦

ENCOURAGING NEW TEACHERS IN HANDS-ON LEARNING

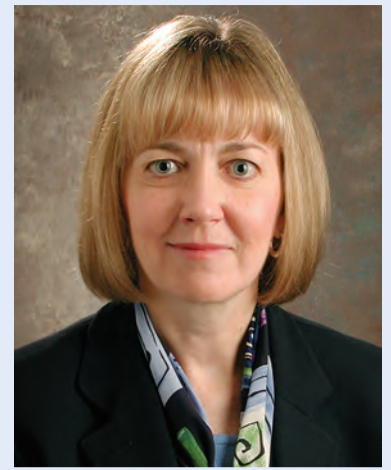
The University has been awarded a \$2.2 million grant by the National Science Foundation to study the development of elementary and middle school teachers during their transition from college into the classroom.

The funding will be used to examine changes in the teachers' understanding of science and education over a five-year period, according to Deborah E. Allen, UD associate professor of biological sciences and principal investigator for the project.

Research will focus on UD's reform-based curriculum for

undergraduate elementary education majors, a group of inquiry-based science and education courses intended to help education majors reshape their understanding of learning. A key goal of the curriculum is to help prospective teachers change from a view that learning is simply the transmission of knowledge through lectures and drills to one that focuses on the creation of knowledge through inquiry-based projects.

The purpose of the grant is to use a cross-disciplinary team of UD faculty, teachers from kindergarten through grade 12,



Deborah E. Allen

graduate students and undergraduates to study the effects of this innovative curriculum on the students who experience it. ♦

SENEGAL EXCHANGE TIPS OFF

The University of Delaware will cooperate with the National Basketball Association (NBA) on an educational sports exchange program with the West African nation of Senegal.

The exchange, which will occur in the fall of 2006, will be supported by a \$326,000 grant from the U.S. Department of State to the University's Department of Health, Nutrition and Exercise Sciences. Through the NBA's international basketball instruction and community relations outreach program, Basketball Without Borders Africa, UD will work with the nonprofit organization Sports for Education and Economic Development in Senegal (SEEDS) and the Senegalese Basketball Federation. "This is a great opportunity to work with the NBA and SEEDS to develop positive relationships with the basketball community in Senegal, but, more importantly, it is a chance to promote the positive benefits



MATT ROBINSON

Kenneth Blakeney, UD assistant men's basketball coach, plays with a youngster in Dakar, Senegal. UD has been awarded a grant by the Department of State and is working with the National Basketball Association to conduct an educational sports exchange program with the African nation.

associated with participating in sport to the youth of Senegal," Matthew J. Robinson, associate professor of sport management and program director of UD's International Basketball Initiative, says.

The funds brought six coaches from Senegal to the United States

this fall to participate in a three-week program. In addition, two Senegalese graduate students will arrive in fall 2006 to begin work toward master's degrees in sport management and will serve as graduate assistants with the UD men's and women's basketball teams and within the sport management major.

In September 2006, the UD men's and women's basketball staffs, along with current and former NBA players and team personnel, will travel to Senegal as part of Basketball Without Borders Africa, where they will take part in coaching clinics and in the NBA's global campaign to raise awareness about HIV/AIDS education and prevention.

Finally, over the course of the program, Robinson will work with the Senegalese Basketball Federation to develop youth basketball leagues and to

secure grants and corporate sponsorship to expand the sport in that country.

Robinson and David Barlow, associate professor of health, nutrition and exercise sciences, have implemented a similar program with Turkey, which began in 2003. ♦



NO WIRES REQUIRED

With an increasing number of students using portable computers, UD's Information Technologies-Network and System Services continues to expand the number of wireless locations on the campus.

Known as "OZones," the wireless-capable locations afford users a network that has "zero wires, zero waiting and zero

worries." Wireless access now is available at 340-plus locations in 102 buildings on UD campuses statewide.

During the summer, several Problem-Based Learning classrooms were made wireless accessible, and Memorial Hall became the first academic building with complete wireless capability on UD's Newark campus. Arsht Hall, on UD's Wilmington campus, also has complete wireless capability. Outdoor wireless locations include the patio areas of the Perkins Student Center, the

Trabant University Center and the Morris Library.

"We have wireless capability pretty much anywhere users would expect it to be," Dan Grim, executive director of IT-Network and Systems Services, says. "These are mainly in the commons spaces in academic areas and residence halls, where students tend to gather."

For maps of wireless locations or information about system requirements, set-up and UD wireless computing policies, visit [www.udel.edu/wireless]. ♦

RECIPE TAKES THE CAKE— AND \$100,000

Alumna Sharon Collison, CHEP '90, who teaches nutrition concepts at UD, loves to cook and to experiment with cooking. It paid off big time when her chocolate-coffee cheesecake with mocha sauce won the grand prize of \$100,000 on Sept. 22 in the *Southern Living* magazine cook-off.

Her recipe was one of three nationwide selected in the "Southern Desserts" category for which she won \$1,000 as a semifinalist. She and her husband, Joe, were flown to Birmingham, Ala., where the magazine is located, for the final cook-off.

"Soon after Joe and I arrived, where we stayed at a lovely resort, I was taken to the *Southern Living* kitchens because I had to make part of my recipe in advance," Collison says. "The next day, all of us were cooking for an hour and a half. All I had left to do was make the sauce, so I had lots of time to be nervous. After the cooking was complete, our dishes were taken from the kitchens and presented to the judges, who were *Southern Living* editors.

"When the announcement was made, I was shaking and crying so that the celebrity chef, Tyler Florence, who made the award, said later he had to hold me up. They presented me with a large

check—6 feet long—for \$100,000 with a real one to follow," Collison says.

To see the prize-winning recipe, go to [southernlivingcookoff.com].



Sharon Collison

As an undergraduate, Collison majored in food science, and she received her master's in nutrition in 1994. She is taking the initial steps toward entering a doctoral program in biomechanics. ♦



Chocolate-coffee cheesecake with mocha sauce

PHOTOS COURTESY SOUTHERN LIVING MAGAZINE

PARTNERSHIP TO ENHANCE HEAD START

A new \$3.3 million, three-year reading project, funded by the U.S. Department of Education, will serve 225 children in northern Delaware and their teachers through a partnership between the University and New Castle County Head Start Inc.

The Delaware Early Reading First project, which will support learning in 12 classrooms in three New Castle County Head Start centers, involves the Delaware Center for Teacher Education at UD, in cooperation with colleagues from the University's Department of Individual and Family Studies.

The project aims to prepare teachers through ongoing

professional development meetings and classroom-based coaching. Three Centers of Excellence will be created, according to Carol Vukelich, Hammonds Professor in Teacher Education at UD and director of the Delaware Center for Teacher Education. Teachers can come to those centers to learn about ways to deliver a high-quality, research-based program that has a positive impact on young children's language and early reading development.

"The teachers with whom we will be working already are good teachers who are providing their young learners with language and early reading activities," Vukelich says. "Their children already are achieving. Our goal is to provide these teachers with a powerful professional development program so that they are not just good teachers, they are excellent teachers." ♦

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CALL 302.838.8790



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FIND FESTIVE FOOD IN THE VITA NOVA COOKBOOK.

Recipes from Vita Nova, the fine-dining restaurant operated on campus by HRIM students, are available for the first time this year in a limited-edition cookbook, *Taste of Class*.

The recipes are from executive chef Joe DiGregorio, a graduate of the Culinary Institute of America, and sous chef Debbie Ellingsworth. The full-color cookbook includes nearly 100 recipes, divided into sections on appetizers, soups, salads, meats, fish and seafood, poultry, pasta, sauces and side dishes, breads and desserts.

Several of the recipes include wine recommendations from the Bouchaine Vineyards of Napa Valley, Calif. The vineyard is owned by Tatiana and Gerret Copeland, who donated a state-of-the-art wine cellar to Vita Nova.

The cookbook was designed by Molly Chappell, an art director in UD's Office of Public Relations. Photography is by Jon Cox, a part-time faculty member in the Department of Fine Arts and Visual Communications.

The book may be purchased for \$24.95 through the University Bookstore.



STAY CONNECTED IN 2006 WITH UD'S NEW DESK CALENDAR.

New for 2006, this spiral-bound desk calendar includes important dates in the University's academic year while celebrating UD's Hotel, Restaurant and Institutional Management (HRIM) program, named one of the top 10 hospitality programs in the U.S. Photographs inside capture HRIM students working at Vita Nova, the popular student-run restaurant on campus, and cycling through five hotel management positions at the new Courtyard Newark—University of Delaware, the recently opened Marriott hotel on the Laird Campus. The calendar, designed by Lane McLaughlin, an art director in UD's Office of Public Relations, is available for \$19.95 at the University Bookstore.

SAVE! BUY BOTH BOOKS— THE COOKBOOK AND THE DESK CALENDAR— FOR \$39.95.

For more information, visit [www.udel.edu/bookstore].

AN OUTPOURING OF SUPPORT FOR HURRICANE VICTIMS

From numerous fund-raising events to admissions assistance to research expertise, the University community rallied during the fall semester to help the victims of hurricanes that devastated the Gulf Coast this year.

Several freshmen who had been admitted to UD but opted to attend Tulane University in New Orleans now have enrolled at UD after Tulane was evacuated when Hurricane Katrina struck. Housing and academic officials at UD helped streamline the process for the displaced students.

Also in September, the Disaster Research Center began dispatching researchers to study issues related to the response to the widespread devastation wrought by Katrina. Students and staff went to such stricken cities as New Orleans, Baton Rouge and Biloxi, as well as Houston, where many evacuees were moved into shelters.

Additional expert assistance came from art conservationists at UD. In mid-September, Debra Hess Norris, Henry Francis du Pont Chair in Fine Arts and chairperson of the Department of Art Conservation, was invited to join a delegation of archivists who traveled to the Gulf Coast to review some of the hurricane damage and help advise



DIJANE PERRY

local officials. Norris said faculty and graduate student conservators from UD plan to continue working with Gulf Coast conservators to restore items onsite in the devastated communities and in the laboratories at UD and at Winterthur Museum.

University efforts on behalf of hurricane victims included a Sept. 12 interfaith candlelight vigil held on the north lawn of The Green and attended by more than 300 members of the UD community. The vigil was held in memory of those who died

and in support of those who are rebuilding their lives.

The same week as the vigil, a number of UD offices, including Campus Life and Residence Life, launched a fund-raising drive called Giving on The Green to help hurricane victims. Throughout the week, students sold \$1 raffle tickets for a long list of prizes donated by area merchants, raising \$8,665 to send to victims of Hurricane Katrina via the American Red Cross.

For a week beginning Sept. 16, a ribbon garden was established on

the south side of Memorial Hall, with campus volunteers distributing green ribbons to students and community members. Recipients were asked to write messages on the ribbons to survivors of the hurricane, and then install them in the garden to show solidarity and encourage reflection and awareness of those in need.

All during the semester, student organizations sponsored a variety of creative fund-raising activities for hurricane victims. These ranged from benefit concerts and sporting events to collections of such needed items as baby formula and diapers to the UD Chorale's recording of a new song, "Big Easy on My Mind," with profits from the accompanying sheet music donated to hurricane relief.

Additionally, English Prof. Ben Yagoda, with support from the Office of Public Relations, organized a faculty auction to assist Dillard University in New Orleans as the private, historically black, liberal arts institution struggles to restore its campus, which sustained heavy flood damage. UD faculty members donated numerous items and services to the online auction, which was held throughout November, with proceeds donated to Dillard. ♦

UD CATHOLIC CHAPLAIN NOW A MONSIGNOR

Father Michael Szupper, as he has been known to the campus community for more than 40 years as the chaplain to UD Catholic students, was installed Nov. 27 as a monsignor, one of six in active ministry in the Diocese of Wilmington, which serves 220,000 Catholics.

Szupper first learned about the honor when he was asked to meet with Bishop Michael Saltarelli to discuss the campus ministry at Washington College, one of Szupper's responsibilities for campus ministries at colleges and universities in the diocese. "We briefly talked about Washington College, and then the bishop said, 'By the way, you have been named a monsignor,'" Szupper recalls.

"I was stunned and still am. When anyone addresses me as 'monsignor,' I wonder, 'Whom are they talking about?' But, the bishop's nominating me to become a Chaplain of His Holiness is a statement and affirmation on his part of the importance of campus ministries."

"That Monsignor Michael Szupper has been designated a Chaplain to His Holiness is a significant recognition of his long and dedicated ministry to the community of the University of Delaware," Saltarelli says. "We

rejoice in this testament to an outstanding priest of God."

UD President David P. Roselle calls the new monsignor "an icon," adding, "His more than 40 years of service to the University community is unprecedented in length, devotion and quality. During all of those years, members of the University's student body, staff, faculty and other religious leaders have benefited from his wise counsel, leadership and model behavior.

"We are very fortunate that Father Szupper has been a member of the University community, and we were absolutely delighted to learn of the well-deserved Papal order that he is henceforth to be known as Monsignor Szupper."

The soft-spoken priest has been a presence on campus since he began his ministry at UD in 1964. At the time, there was no St. Thomas More Oratory, so he said Mass in a variety of locations from movie theatres to a synagogue. The Oratory was built in 1974 as part of a diocesan building campaign, giving Catholics in the campus community a central place to worship.

Becoming a monsignor will not change Szupper and his service as chaplain, he says. However, when he was fitted for a new cassock with purple piping, buttons and sash, he



KATHY F. ATKINSON

Monsignor Michael Szupper

says, "I asked the tailor if it could be blue for Delaware, but he was not amused."

Szupper says Mass at 12:30 p.m., Mondays through Thursdays, followed by his main meal of the day at The Scrounge, where he informally talks and interacts with students and others. "If I miss a day, the staff at The Scrounge ask where I am," he says. Saturdays, there is a Mass in the late afternoon, and Sundays are busy with religious

classes for children taught by UD students and three Masses throughout the day.

In 2003, Szupper received the University's Medal of Distinction, the highest award bestowed on citizens of the state and region for contributions, professional success and significant service. He says the other honor he remembers most fondly occurred during Mass on his 70th birthday, when the back door of the Oratory opened and who should strut in but YoUDEe. The University mascot came up to the altar holding a bunch of birthday balloons. "It was a wonderful surprise," says Szupper, who has kept a photo of the presentation.

A large part of the ministry is counseling, and he and Kim Zitzner, who is associate chaplain, both are judicial advisers within the University system.

"Basically, students want to be heard and recognized as individuals, and each has his or her own story to tell," Szupper says. "Scripture tells us Jesus walked with people, talked with people, listened to people and broke bread with people. We try to do the same, but we never work miracles."

"Maybe we do, and we just don't know it," Zitzner says. ♦

—Sue Moncure

RESIDENCE HALL DEDICATION PAYS TRIBUTE TO A FOUNDING FATHER

The first federally mandated Constitution Day was marked in a distinctive fashion at UD, with a ceremony that included a ribbon-cutting to dedicate George Read Hall, named for a Delaware founding father and signer of both the U.S. Constitution and the Declaration of Independence.

The Sept. 17 gathering took place between the north and south wings of George Read Hall, the University's newest, state-of-the-art residence hall, located on the Laird Campus. Students, faculty and administrators came together to observe the occasion and hear remarks by UD President David P. Roselle and a talk by Jonathan Russ, UD assistant professor of history, who paid tribute to Read.

"We gather this morning to celebrate this beautiful new University residence hall; to honor one of our first alumni, George Read, for whom this building is named; and to mark the nation's first federally recognized Constitution Day, established to honor our government's founding document," Roselle said.

Before introducing Russ, Roselle thanked Ayers/Saint/Gross, the architectural firm; Whiting-Turner, the construction management firm; and the several trade contract firms who completed the project in less than 15 months, in time for the start of the fall semester. More than 500 students live in the new residence hall.

Russ took the podium then, saying, "Harvard. Yale. Princeton. Dartmouth. Penn. Great schools, all with reputations for academic excellence throughout their histories. And yet, none of them can boast what we here at the University of Delaware can. Indeed, we have as part of our legacy a man whose witness to our nation's birth is so unique that no other institution of higher learning in the United States can lay claim to such an individual. That man was George Read."

Russ noted that Read was one of only six men to have signed both the Declaration of Independence and the Constitution "and the only one of those to have secured an advanced, formal education in Colonial America." He spoke of Read's education, career and early connection with UD, which "began at the age of 10, when, in 1743, he came to the Rev. Francis Alison's newly opened academy that eventually became the University of Delaware."

Read went on to open his own law practice at age 20 and was named attorney general of Delaware's three counties by the time he turned 30.

"It was a prestigious appointment that brought with it security, deference and a prominent place in



DUANE PERRY

George Read Hall, the University's newest residence hall, is on the Laird Campus.

his community," Russ explained. "Nevertheless, Read was not afraid to risk all of this and to speak out against English authority when he thought a matter merited such voice."

Russ recounted Read's role in the 1765 Stamp Act Congress, a body that gathered to protest new English taxes that had been imposed upon the Colonists.

"It was because of Read's very success in the Stamp Act Congress that his fellow Delawareans elected him as a representative to the Continental Congress that gathered

in Philadelphia for the first time in 1774," Russ said. "And, it was this body that drew up the Declaration of Independence in 1776."

Russ said the circumstances of Read's signing the Declaration of Independence again showed his "principled character." Read initially opposed the measure, Russ said.

"He believed that all attempts at peaceful reconciliation between the Colonies and the royal authorities should be exhausted before plunging into war, and feared that perhaps there remained unexplored avenues

for peace," Russ said. "Moreover, as a legal matter, he believed that perhaps a functioning government should be created before announcing the new birth of the new nation. Therefore, it was only after long, careful consideration that Read concluded independence was the proper course of action."

Read's sense of fairness also played a key role in drafting the Constitution, Russ said, as well as in establishing protection for the rights of small states.

"He was particularly concerned that smaller states, like Delaware, have adequate power in the new government, and thus argued passionately in favor of equal representation for all the states in the U.S. Senate."

"His was a remarkable life," Russ concluded, "and it is indeed fitting that this grand structure be named in his honor. In the years to come, thousands of students will call this building home. To be sure, it will be a temporary home for them, but a home that exists in a state and in a country that was shaped by the efforts of this man, George Read."

Constitution Day was established by Congress in December 2004 as a day to be observed each Sept. 17 by all federally funded educational institutions ♦ —Becca Hutchinson

STUDENT TRACES HER ANCESTRY TO GEORGE READ

For one University student, in particular, the dedication of George Read Hall had a special meaning. Meredith Elizabeth Clymer is a direct descendant of Read.

Although Clymer, who has a double major in communication and women's studies, knew of her famous ancestor, she says she did not know of his connection to UD.

Still, she says, she felt at home the minute she stepped on campus six years ago as a high school junior from East Millstone, N.J. The sense of connection was so striking that it prompted her to opt for early decision and forgo tours of other colleges, she says.

"I didn't pick Delaware knowing that George Read was affiliated with it," Clymer says now, "but I think it's a happy coincidence. I'd known that Read was an ancestor of mine and that he was only one of the six founding fathers who signed both the Declaration of Independence and the Constitution of the United States, but it wasn't until I read an article about how Read Hall got its name that I learned Read had attended the University."

Clymer, who can trace her lineage to George Read through six generations on her father's side, also is a direct descendant of

George Clymer, another local founding father who signed the U.S. Constitution.

Although she says family anecdotes about the famous ancestors were kept to a minimum in her home, she does cart around a certain amount of legacy with her name.

"I was named after George Clymer's wife, Elizabeth Meredith," she says, "and that was changed to Meredith Elizabeth for me, to keep 'M' as the first initial in my first name, for other family reasons."

Clymer says that, while she doesn't plan to pursue a career in either politics or law, she feels she's received more than a name from her famous ancestors in both leadership and writing abilities.

"I do feel I'm a proficient writer, and I have leadership skills," she says. "And, since I eventually hope to go into event planning, I think these assets will serve me in good stead with marketing and organizing and delegating tasks."

By logging approximately 20 hours a week at UD's Office of Admissions, Clymer already is testing some of these abilities



KATHY F. ATKINSON

Meredith Elizabeth Clymer

outside the classroom. Involved with planning admissions office events that coincide with tours by prospective students, Clymer also supports the student efforts behind the VDay organization, a nonprofit, worldwide entity that distributes funds to programs that work to stop violence against women.

"It's taken me awhile to learn that Read was a student here, but I'm glad he was," Clymer, who plans to attend graduate school next year, says. "The founding fathers were great, inspired men, and I'm humbled that I can claim descendancy." ♦

THE RECORD-BREAKING CLASS OF 2009

How to recognize a first-year UD student?

Find someone named Jessica or Michael who has a grade-point average (GPA) of 3.52 or higher, made 1200 or more on her or his SATs and is involved in sports and/or community service.

That student will most likely be part of the record-breaking 3,536 students who make up the Class of 2009. More than 500 entering freshmen have high school GPAs of 4.00 or above, 200 scored over 1400 on their SATs, and two had perfect SAT scores.

"Average SAT scores and the number of students with grade point averages of 4.00 or higher coming to the University of Delaware as freshmen this fall have reached new levels," according to Lou Hirsh, UD admissions director. "This is the first year that the

average entering freshman at UD has SATs above 1200."

The new students come from 35 U.S. states, including Alaska and Hawaii, and nine foreign countries, with 1,125 from Delaware, followed by the next largest numbers from New Jersey, Pennsylvania, New York and Maryland.

Once again, the largest number of freshmen, 1,279, are enrolled in the College of Arts and Sciences, followed by 569 undeclared majors, 478 in the Alfred Lerner College of Business and Economics, 347 in the College of Engineering, 337 in the College of Human Services, Education and Public Policy, 327 in the College of Health Sciences and 113 in the College of Agriculture and Natural Resources.

A higher proportion than ever before are part of minority groups—more than 15 percent—with the



KATHY F. ATKINSON

New Student Convocation was held in the Bob Carpenter Center for the 3,536 first-year students.

largest increase in Hispanic students.

More than half of the Class of 2009 participated in volunteer or community service and in sports before coming to UD.

Jessica and Michael are the most popular male and female names coming to campus this fall. There

are 78 Jessicas, beating out Lauren by 10 and trouncing former favorite, Jennifer, by 27. Michael and Matthew tied last year, but this year, 102 freshmen are named Michael and 79 are Matthews. There are 14 pairs of twins enrolled. ♦

A HELPING HAND FOR HOMELESS BOYS

Greg Sweeney, AS '09, has won two prestigious national awards for community service for founding Cub Scout Pack 506, the first scout pack on the East Coast exclusively for homeless boys. And, to top it all off, he was featured as the "Person of the Week" on Oct. 14 by ABC-TV's *World News Tonight*.



SARAH SIMON

Greg Sweeney

children in the shelters, most of whom came from single-parent families with no male role model, and heard someone say what great role models the scouts made for the boys, he said he thought it would be a good idea to start a Cub Scout pack for them.

He

approached Brother Ronald Giannone, director of the Ministry of Caring in Wilmington, who gave him a \$200 budget and a meeting place and asked a volunteer to place ads in church bulletins.

Sweeney was able to pull together the people and resources needed to start Pack 506, which today serves 16 to 18 homeless boys. "For most of them, it is the only thing they can count on in their lives. It gives them consistency," Sweeney says.

Over the years, he has helped obtain donated T-shirts for the youngsters, Boy Scout Council scholarships for them to attend summer camp, free transportation to their weekly pack meetings and a tutoring service for those needing extra help in school.

More than 100 homeless boys have become Cub Scouts through Pack 506, which now has 12 volunteers. ♦

ON THE RIGHT TRACK TO SAFETY

To increase student awareness about train safety issues, a new poster with a list of safety tips and precautionary practices has been placed in various campus and community locations.

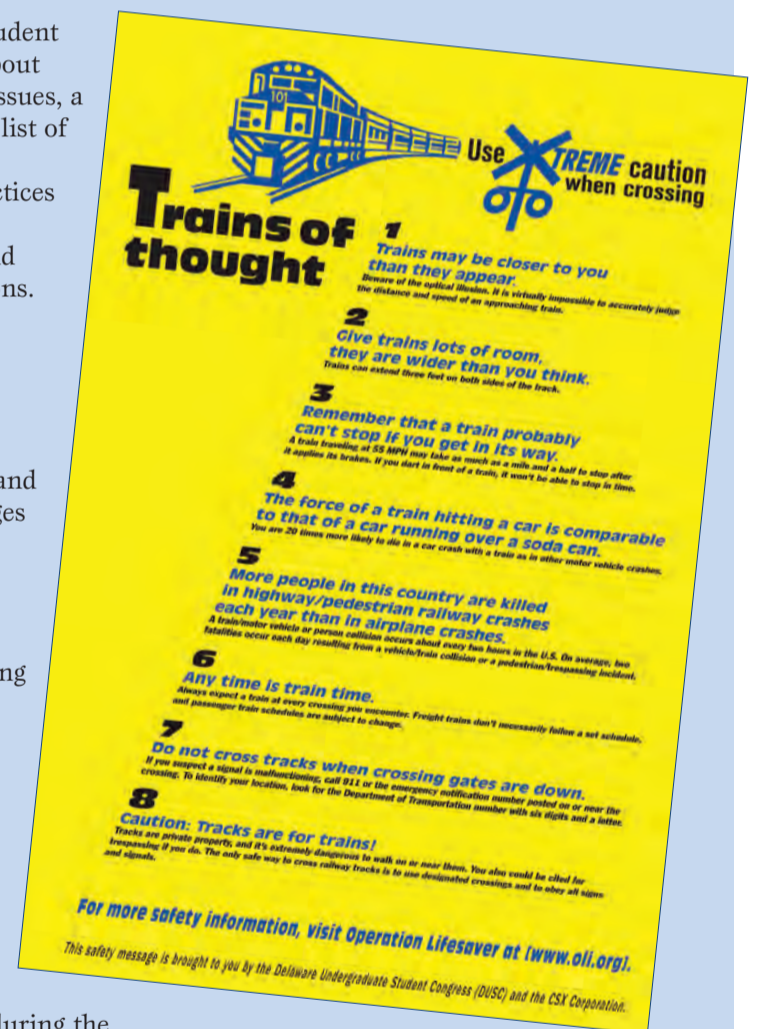
The "Trains of Thought" poster, sponsored by the Delaware Undergraduate Student Congress and the CSX Corp., urges pedestrians and motorists to "Use Xtreme caution" when approaching any railroad crossing and to remember that railroads are private property and that walking on or near them is extremely dangerous.

The safety campaign was prompted by four serious accidents during the 2004-05 academic year involving pedestrians and trains, including the death of an 18-year-old freshman, who was fatally struck by a train on the CSX Railroad trestle near Cleveland Avenue and North Chapel Street on Sept. 12, 2004.

The train safety project team produced the slogan, "Stay off the tracks," and the "Trains of Thought" poster was designed by Monroe Givens, associate director of creative services in UD's Office of Public Relations. The posters highlight eight important train

safety tips and warnings, including a reminder that trains may be closer than they appear, that they are wider than most people think and that a train traveling at 55 mph can take as long as a mile and a half to stop.

Posters and cards were distributed by the Newark Police Department and displayed by local businesses and on UD buses, and 10 street signs have been posted near the three railroad grade crossings in Newark. ♦



NEWEST ALISON PROFESSOR SEEKS SMALLER, STRONGER MAGNETS

George Hadjipanayis, Richard B. Murray Professor of Physics and chairperson of the Department of Physics and Astronomy, has been named the 2005 winner of the Francis Alison Award, the University's highest faculty honor.

The University's Board of Trustees established the award in 1978 to recognize the scholarship, professional achievements and dedication of the UD faculty.

"All of us at the University of Delaware are delighted that Prof. Hadjipanayis has been named the Alison Professor, the highest award for faculty at our institution. His record of service, teaching and research clearly justifies his having been accorded this honor," UD President David P. Roselle says.

Tom Apple, dean of the College of Arts and Sciences and professor of chemistry, says Hadjipanayis is a first-rate scientist whose work in nanomaterials has received international acclaim.

"He has made many fundamental contributions to our understanding of the microstructure of magnetic materials. As chair of our physics and astronomy department, he provides outstanding leadership. He has promoted excellence, and he has created an environment of collaboration to achieve our goals in teaching and research. George is certainly deserving of our most revered faculty award," Apple says.

"I was astounded to learn that I am the recipient of this year's award," Hadjipanayis, who joined UD in 1989, says. "I was ecstatic. I feel humbled to be one of the recipients. I'm very happy."

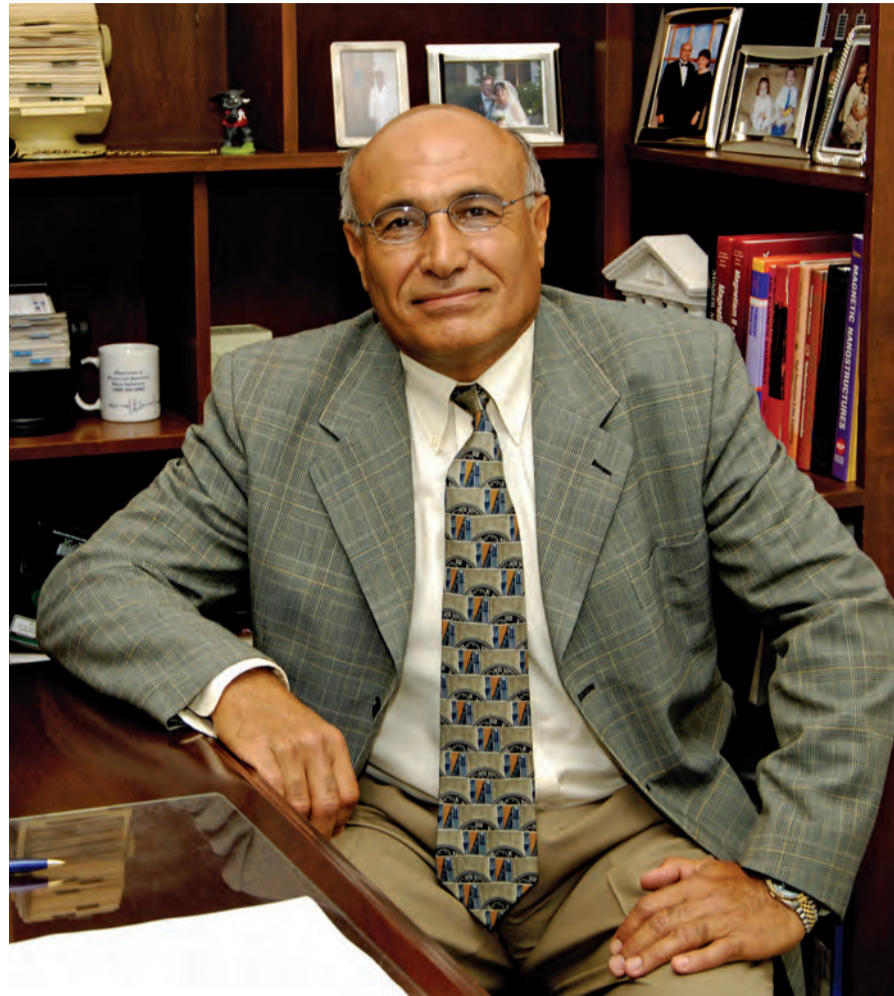
He delivered the 2005 Francis Alison Inaugural Lecture, speaking on "The Magic of Magnets," in November.

Dedicated teacher

During his four-year tenure as chair of UD's physics and astronomy department, Hadjipanayis not only has spearheaded the merger of the Bartol Research Institute with his department through the academic program review process, but he has continued to teach "Introduction to Magnetism," "Introduction to Electron Microscopy," "Physics Research Talks" and "Fundamentals of Modern Physics."

"My challenge is to make my department better, both in scholarly work and in education programs," Hadjipanayis says. "My goal is to move the department into the upper quartile of physics departments in the U.S. All that is possible because the University has a commitment to scholarly work and teaching."

"I have been enjoying my work, both in research and teaching, and I'm very happy that I came to the



George Hadjipanayis, Richard B. Murray Professor of Physics and chairperson of the Department of Physics and Astronomy, was named the 2005 winner of the Francis Alison Award.

University of Delaware. Even as the chair, I still teach. I volunteered to teach because I love it. I advise grad students and hold weekly meetings. It's hard work for me, but I believe it's a duty," he says.

Hadjipanayis says he is a proponent of collaboration across different academic areas for the benefit of students. "We have excellent resources scattered across physics, chemistry, chemical engineering and materials science. I believe students gain from the collective resources that grow from the academic interaction of the various units," he says.

Hadjipanayis says UD's Undergraduate Research Program is key to tapping the potential of budding scientists as active participants, while giving them an opportunity to further explore and pursue their interests. He also has worked closely with St. Mark's High School, the Charter School of Wilmington and Newark High School, among others, to provide high school students opportunities to gain valuable experience by working in UD's magnetism laboratory.

Cutting-edge researcher

The focus of his current research in permanent magnets is to make stronger magnets. "The stronger they are, the smaller the volume of the magnet you need to use. In this era of miniaturization, you need stronger

and smaller magnets," he says.

"We are trying to go to the next generation of magnets: High-temperature magnets are needed by the U.S. Air Force, which is changing hydraulic systems to electromagnetic systems for the more-electric planes, and magnets very close to engines become very hot," Hadjipanayis says of his research, which is funded by a \$2.4 million grant from the Air Force Office of Scientific Research.

In another \$3.7 million grant funded by the Defense Advanced Research Projects Agency, UD magnetism researchers are working to develop high-performance nanocomposite magnets based on exchange-coupled soft and hard phases.

Hadjipanayis says grants totaling \$400,000 from the National Science Foundation and Seagate, a major computer data-storage device manufacturer, are funding research into high-anisotropy magnetic nanoparticles and nanocomposites. The goal is to write data on smaller and smaller particles that, in turn, are more thermally stable. The result would enable the manufacture of smaller, high-capacity magnetic data storage disks made of iron-platinum, which research shows can remain stable at three nanometers. The potential gain in storage capacity can be up to seven terabits per square inch, from 50 gigabits per square inch, an increase 143 times

greater, he says.

"Other interesting applications for magnetic nanoparticles are biological uses, such as the delivery of drugs into the body by attaching them to particles about 10 nanometers in size and Magnetic Resonance Imaging contrast enhancement," Hadjipanayis says. "Researchers have found that the use of such particles has helped detect prostate cancer at a very early stage."

Nanoparticles also can be used for hyperthermia treatment of cancer, in which particles are placed in a specific area and activated by magnetic force outside the body to generate heat in the selected area.

In his career, Hadjipanayis has advised 20 graduate students and published more than 400 papers. In addition to his intensive research program, he led the development of a modern magnetism laboratory that is fully equipped with state-of-the-art magnetometers and a high-resolution scanning and transmission electron microscope. He has written several chapters in books and organized and directed international conferences, including three NATO Advanced Study Institutes. He also regularly teaches courses in magnetic materials and electron microscopy and a NATO Advanced Research Workshop.

The founder and current director of the Consortium for Advanced Magnets, Hadjipanayis has received nearly \$13 million in research grants and contracts.

Born in Cyprus, Hadjipanayis received his bachelor's degree at the University of Athens in 1969. His early work in magnetic materials was at the University of Manitoba in Canada, where he earned his master's and doctoral degrees.

A postdoctoral fellow at the University of Nebraska from 1979-80, Hadjipanayis worked for Kollmorgen Corp. in Radford, Va., from 1980-82, joining a team to improve the magnetic properties of cobalt and iron-rich magnets. He later led the efforts to develop a cobalt-free permanent magnet, which resulted in the discovery of neodymium-iron-boron supermagnets.

He returned to academia as an assistant professor at Kansas State University in 1982.

Hadjipanayis was named a fellow of the American Physical Society in 2001 and a fellow of the University of Delaware Center for Advanced Study in 2000. He was named Richard B. Murray Professor of Physics in 1999 and won UD's Arts and Sciences Best Scholar Award in 1998. He was a Humboldt Senior Fellow at the Max Planck Institute in Stuttgart, Germany, from 1998-2000. ♦ —Martin Mbugua

In Memoriam

Mary J. Hempel helped shape UD's image

Mary J. Hempel, assistant to the president and director of the Office of Public Relations at the University, died Sept. 30. She was 58.

Mary joined the UD staff in 1971 as an associate news editor, becoming news editor in 1972. She was appointed director of the then-Office of Information Services in 1979. In 1997, she was named assistant to the president and director of the Office of Public Relations.

Under her leadership, the Office of Public Relations grew from a small news bureau to a multifaceted public relations unit that produces several publications and the University's online news site, *UDaily*, and also handles media relations, photography, advertising and marketing, as well as the University mascot—YoUDEe. Under her guidance, the office has received several awards for excellence.

Among her many contributions to the University, Mary supervised the birth and development of *The Messenger* and continued to nurture and oversee its growth over the years.

A member of numerous University committees, Mary was a dynamic contributor to many areas of the University and a valued adviser to many on the campus. In 2002, she received the Downtown Newark Partnership's first Outstanding Volunteer Award for an individual from the University. She also was an active volunteer with Delaware Hospice and the local chapter of the March of Dimes Birth Defects Foundation, among other

charities.

Members of the UD community and of Mary's family attended a memorial service Oct. 11 at the Bob Carpenter Center to celebrate her life. They remembered her as a loving sister and aunt, a generous colleague and a talented professional communicator whose tireless dedication to the University was matched by an ability to find



Mary J. Hempel

series of slides on screens flanking the lectern highlighted some of the many projects Mary had overseen, from photos showcasing the campus in different seasons to colorful banners and vibrant murals

on display at various University locations. Images of magazines, brochures and calendars produced by the Office of Public Relations and of public-awareness and

to the institution she loved so completely."

John Brennan, who worked with Mary since 1972 and now has been appointed to succeed her, spoke of her devotion to the printed word, as a voracious reader, a trained journalist and a gifted writer and editor. He recalled her ability to write and edit materials from brochures to speeches to proposals and to evaluate photos and designs in order to select those with the most impact for a particular purpose.

"All this boils down, of course, to an ability to communicate," Brennan said. "And, Mary was a master at that."

He also praised Mary's interest in innovation and her desire always to find fresh, new ways to cover a story or present the University's message. "She was not interested in repeating herself, and she certainly knew that readers were not interested in seeing the same thing over and over," Brennan said.

Robert R. Davis, vice president for University development and alumni relations, who worked with Mary for almost 30 years, called her "a creative genius at seeing the whole picture and then putting to task the people and resources to get the job done."

Born in Clinton, Iowa, Mary earned bachelor's and master's degrees in journalism from the University of Missouri at Columbia. In graduate school, she participated in the Graduate Reporting Program, serving as Washington, D.C., correspondent for several newspapers. ♦

Mary supervised the birth and development of The Messenger and continued to nurture and oversee its growth over the years.

humor in the world around her and a willingness to share her laughter with others.

Longtime friends who spoke at the service shared memories of Mary and reflected on her legacy as a helper, mentor and enthusiastic supporter of the University's goals and cheerleader for its accomplishments. Her niece, Alison Roath March, AS '98, recalled that, even as a child, she knew her aunt loved two things above all—her family and her job. Mary, March said, loved the beauty, energy and diversity of the UD campus.

Before the service began, a

community-outreach campaigns created by the office were on display, along with photos of UD buses wrapped in artwork and of YoUDEe engaged in assorted antics.

In his remarks at the service, President David P. Roselle noted Mary's key role in the projects shown in the slides, in addition to numerous others. "When you access *UDaily*, think of Mary...When you walk on The Green, stop and read the historical markers; those are Mary's words," he said, calling such tangible reminders "only a few of the lasting contributions Mary made

BETWEEN THE COVERS

Gretchen Bauer, associate professor of political science, with Scott D. Taylor, *Politics in Southern Africa: State and Society in Transition*, Lynne Rienner Publishers.

Susan M. Chase, CHEP '95/PhD, *Within the Reach of All: An Illustrated History of Brandywine Park*, The Friends of Wilmington Parks.

Lee Beetschen, EG '64, under pen name Morgan C. Lee, *The King's Con*, Cherokee Books.

Richard A. Davison, retired professor of English, with Jackson R. Bryer, *The Art of the American Musical: Conversation with the Creators*, Rutgers University Press.

Rudi Matthee, professor of history, *The Pursuit of Pleasure: Drugs and Stimulants in Iranian History, 1500-1900*, Princeton University Press.

Susan L. Miller, professor of sociology and criminal justice, *Victims as Offenders: The Paradox of Women's Violence in Relationships*, Rutgers University Press.

Thomas Pauly, professor of English, *Zane Grey: His Life, His Adventures, His Women*, University of Illinois Press.

Julie Johnson Sussman, AS '82, with Stephanie Glakas-Tenet, *Dare to Repair (Your Car)*, Collins Press.

Anthony Varallo, AS '92, *This Day in History*, University of Iowa Press.

Stanley Weintraub, adjunct professor of English, *Iron Tears*, Free Press.

Ben Yagoda, professor of English, *The Sound on the Page: Style and Voice in Writing*, paperback edition, Harper Resource Press. ♦

HONORS FOR A BRIGHT BROADWAY LIGHT



DUANE PERRY

“In New York City, when you walk past a theatre that is dark, it feels like a death. So, to actually be at the site of an arts center and see a theatre being born was very emotional. It gave me the chills,” Susan Stroman said as she received an honorary degree from the University.

Five-time Tony Award-winning choreographer Susan Stroman received an honorary doctor of humane letters degree from the University in an October ceremony attended by faculty, staff, alumni and friends.

“We celebrate all those who perform and create, and we also congratulate the rest of us who help make up an appreciative audience,” UD President David P. Roselle said at a reception and dinner for Stroman, a 1976 UD graduate.

The event followed a visit to Morris Library, a meeting with students in UD’s Professional Theatre Training Program (PTTP) and a hardhat tour of the Center for the Arts construction site at Amstel Avenue and Orchard Road. Roselle told those gathered for the dinner that Stroman had earlier made a major gift to the Center for the Arts and said, “Susan, we are deeply grateful for your assistance.”

For Stroman, the event served as a personal homecoming and an example of the University’s commitment to the performing and creative arts.

“My time here as a student was a wonderful time, and I love being here now,” she said. “The time I spent here today walking around the campus is the highlight of my year.”

She expressed her appreciation for the construction of the Center for the Arts in an era of reduced budgets for the arts and the closing of many theatres nationwide.

“In New York City, when you walk past a theatre that is dark, it feels like a death,” Stroman said. “So, to actually be at the site of an arts center and see a theatre being born was very emotional. It gave me the chills.” The Center for the Arts, she said, will serve and inspire future generations of students to achieve their dreams in the realm of

music, dance and theatre.

In presenting the honorary degree, P. Coleman Townsend, a member of the University Board of Trustees, praised Stroman as “one of musical theatre’s greatest treasures, one of Delaware’s most celebrated citizens and one of the University of Delaware’s most distinguished graduates.”

Past recipients of the honorary degree include artist Jamie Wyeth, documentary film director Ken Burns, Supreme Court Justice Sandra Day O’Connor and former President George H.W. Bush.

Townsend cited some of Stroman’s career highlights, including her Broadway debut as choreographer for *Crazy for You*, in which she worked with her late husband, producer and director Mike Ockrent. Stroman won her first Tony for choreography for that show and a second Tony for the revival of *Show Boat*. Further stage triumphs included Trevor Nunn’s revival of *Oklahoma!* and the hit revival of *The Music Man*.

“Then, the blockbuster collaboration with Mel Brooks—*The Producers*, for which you won a Tony Award for best director and best choreography; Drama Desk Award for outstanding director of a musical and outstanding choreography; Outer Critics’ Circle Award for best choreography and best director; and Astaire Award for best choreographer,” Townsend said. He also recalled Stroman’s induction into the alumni Wall of Fame in 1993 and her return to UD as a Winter Commencement speaker in 1994.

“In your Commencement address to our students, you said, ‘There is great truth in imagination,’” Townsend said. “For your many professional achievements and for your gift of imagination, we salute you and present you with the University’s highest honor, the honorary degree, doctor of humane letters.”

“I am so honored to be here tonight, and I can’t thank you enough,” Stroman said. “Art nurtures the soul, and that is how you find yourself. That is the way education works.”

After the degree presentation, a short clip from the new movie version of *The Producers*, directed by Stroman and scheduled for release in mid-December, was shown. The evening was capped by

performances of monologues by PTTP students.

Earlier in the day, Stroman met with 26 PTTP students for a question-and-answer session. She told them about the first time she met Brooks, who wrote and directed the original 1968 movie *The Producers* and then produced the 2001 Broadway musical version of it, when he worked with Stroman.

“He launched into ‘That Face’ a song from the second act of *The Producers*,” she told the students. “Then, he danced past me around the room and ended up on the sofa. When he finished the song, he said, ‘Hello, I’m Mel Brooks.’”

Stroman told students she grew up “in a house that was always filled with music” and that she attended dance classes “all of my life.” She became involved in community theatre, choreographing and directing, and shortly after she graduated from UD, she applied for a dancing job in New York City.

“They picked one non-Equity card girl, and I was it,” she said.

She worked as a singer/dancer after that, she said, “but you can’t have a split focus in the theatre. You have to be one thing or the other, so I chose dance.”

Her first big break came when she was hired to choreograph the off-Broadway revival of *Flora the Red Menace*, Stroman said. Her work was seen by producer/director Hal Prince, who hired her to direct the dance sequences for his New York City Opera production of *Don Giovanni*. She got her first break on Broadway when she was hired to choreograph *Crazy for You*.

“I’ve had shows that have run and shows that haven’t, and even though some weren’t financial successes, they were creative successes. I’ve taken a piece of each show and carried it with me,” she said.

Stroman said her career hasn’t been hampered by others telling her what she can’t do, even in a medium

that’s new to her like movies.

“Brooks has let me have free rein,” she said of *The Producers*, her first film. “He really believes in me; he’s become my impresario.”

When asked if she has plans to direct more films, she said that she’s been approached to make the 2000 Tony Award-winning dance play *Contact: The Musical*, which she developed and directed with John Weidman, into a movie.

Another student asked what she looks for when she hires an actor. “I look for people who are fearless, who want to jump into the pool with me. It’s wonderful to work with actors who will take chances,” she said. “Even though Uma Thurman [in the movie version of *The Producers*] was not a singer or dancer, she wasn’t afraid of being lifted off a desk or sliding across a room.”

Stroman told them when she’s involved with a play or trying to come up with an idea for one, she does research. “If I’m doing *Crazy for You*, I do research about the 1930s. For *Showboat*, I tried to find out what society was like then,” she said.

Students asked about the differences between working on plays and film.

“You never feel the pressure of costs in theatre, but you do when you’re making a movie,” she said. “There’s more camaraderie in theatre; you are all in it together. But in film, you work with the shooting crew, then they’re gone. You work with the editing crew, and they’re gone. In theatre, you invest in relationships, in the team; it’s so heartfelt. Film is a more technical medium.”

In answer to another question, Stroman said she’s never doubted her choice of career.

“I can only do this,” she said. “I can only be in the theatre. I go to plays all the time. I’m inspired by the actors I see and the stories that I feel.” ♦

—Jerry Rhodes, AS ’04
and Barbara Garrison



DUANE PERRY

Award-winning Broadway choreographer and director Susan Stroman, AS ’76, engages PTTP grad students in a question-and-answer session.

A foundation of excellence

Kristi Kiick, AS '89
Assistant professor of
materials science and
engineering

I have very vivid memories of attending the University of Delaware. I benefited enormously from the Honors Program, as well as from the dedication, support and confidence of my professors in my major, chemistry, as well as in other disciplines of interest to me, particularly science education.

“These experiences provided an excellent foundation for my graduate studies and have served me well as I have developed my own research and teaching programs in the Department of Materials Science and Engineering at UD. Even now, almost 20 years after I attended UD as an undergraduate, the University continues to support my career development in important ways, providing outstanding resources and facilities. Starting my career as a faculty member here has been exciting and rewarding. I’m delighted that I have been able to join the faculty at the institution where I took some of my very first scientific steps, and I look forward to what my research group will achieve here in the future.” ♦

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[www.udel.edu]

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(302) 831-8125

Graduate studies
(302) 831-8697



BLOGS GO MAINSTREAM

INTERNET TOOL GAINS RESPECT IN THE BOARDROOM AND CLASSROOM

So, you think you might like to give skydiving a try, or you want to talk about why Philadelphia sports teams can't seem to catch a break. Maybe you're interested in exercise and health tips, Spanish pop music or the Civil War. Or, maybe you just want to delve more deeply into the mysterious doings of TV's *Desperate Housewives*.

For a mix of information, opinion and chat on all these topics, and approximately 80 others from wedding planning to backpacking, you can turn to a new resource—student-produced blogs that were created as part of a business administration class. The class, "Information Technology Applications in Marketing," requires students to create their own blogs, or personal web logs, on a topic of their choice.

"We asked the students to choose topics they were passionate about, not just interested in," Anu Sivaraman, assistant professor of marketing, says. "We think that passion is reflected in the work they have done, which is on a par with some of the best blogs I've seen anywhere."

Blog creation first became a course requirement during the spring 2005 semester. The topic is a recent addition to the curriculum in the Lerner College of Business and

"BECAUSE BLOGS ARE BEING USED MORE AND MORE IN BUSINESS, WE THOUGHT IT WAS TIME THAT OUR STUDENTS GET TRAINED IN THIS FIELD."

—Anu Sivaraman

Economics, Sivaraman says, reflecting the fact that blogs are becoming an increasingly important marketing tool. Also teaching the course is Alex Brown, an instructor in marketing, who introduced Sivaraman to the concept of blogging.

Blogs are known to many Internet surfers either as personal journals in which the writers detail the often-mundane aspects of their lives or as unedited forums in which bloggers can express their opinions on a variety of political topics.

But, blogs also are being used by established businesses to reach audiences informally and to counter negative publicity from mainstream media or other blogs. *Business Week* magazine, in a recent article titled "Blogs Will Change Your Business," reported that 9 million blogs exist on the Internet, with 40,000 new ones being created daily.

The article, which also served as the magazine's introduction of its own blog, called the new communications tool "simply the



KATHY F. ATKINSON

Anu Sivaraman says the blogs, or web logs, her students have created and maintained as a course requirement are among the best she's seen on the Internet.

most explosive outbreak in the information world since the Internet itself." It noted that companies are hiring people to monitor blogs to learn what is being said about their

own businesses and about their competitors, as well as to create blogs.

"Because blogs are being used more and more in business, we thought it was time that our students get trained in this field," Sivaraman says. "It's a very marketable skill to have when you go for that first job interview."

Students created their blogs from scratch, adding links to related web sites, photos, animation and an assortment of other enhancements. Sivaraman says the students in the class also have seen the project as a community-building exercise, in which their classmates and others from throughout the University can add their own comments, ask questions or participate in online discussions about the blog's topic.

Sivaraman says she and Brown have been impressed by the quality and the diversity of the blogs. Topics have included cigarette smoking, supporting those in the military, weightlifting, movie and theatre reviews, recipes, a guide to local

restaurants and a variety of travel blogs, describing destinations from Vietnam to Antarctica.

Natalia Bernardino, BE '05, says Hurricane Katrina was dominating the news at the time she was beginning her class project. She chose the disaster as the subject of her blog, using the forum to recount personal stories of survivors, to update news and opinions on the government's response to the hurricane and to provide readers with information about organizations that were helping with relief efforts.

"People seem especially interested in individual human interest stories and in ways they can help," Bernardino says. "I want to keep the blog going, to continue to follow what is being done."

The timing of the fall semester class also suggested a blogging topic for Katie Wallace, BE '05, who is planning a July wedding in Mexico. "Destination weddings, how to plan them and tracking my own progress seemed like a perfect subject," she says. In addition to her personal experiences, Wallace's blog includes tips from a professional wedding planner and links to a variety of travel sites.

Shayna Kritz, BE '06, also used personal experiences as the starting point for her blog. In Kritz's case, it was an account of her childhood and teenage years as an observant Jew in a secular and largely Gentile environment. She writes of feeling like an outsider in her

Massachusetts school and the importance of her involvement in a supportive Jewish youth group.

"I also use the site to include factual information about Jewish holidays and religious observances," Kritz says. "I've received so many positive comments and questions from people who were interested in what I wrote that it's been a great experience for me."

For Nguyen Dinh, BE '06, life experiences also were her inspiration in creating her blog. Until she came to the United States four years ago to attend college, Dinh had lived in Vietnam, where her family still lives. She says she wanted to share information about her country, and about Asia in general, with Americans who might not know much about the history, culture and beauty of the region.

"I try to mix my own experiences with information so that it can be a travel guide to Asia," Dinh says. "It's been very interesting for me to learn about this new tool for communication. I think you can make a lot of friends and hear a lot of different opinions through blogs."

Sivaraman says the class covers various information technology topics in addition to blogging, including small-business Internet marketing strategies and international considerations in global Internet marketing.

The blogs can be viewed at the class web site, [<http://buad477fall5.blogspot.com/>]. ♦

—Ann Manser, AS '73, CHEP '73

PROGRAM'S CONVENIENCE AN RX FOR RNs

Ever since Michelle Collins graduated from UD with a bachelor's degree in nursing, she has known that she wanted to earn an advanced degree someday. But, she says, between working in various nursing specialties and her responsibilities as a wife and mother, the time never seemed right to return to school.

All that changed this fall when Collins, CHS '91, enrolled in a graduate nursing program the University is offering at Christiana Hospital. The clinical master of science degree in nursing is an established program on campus, but this semester marks the first time it is being offered at the hospital.

Called the Christiana Cohort program, it came about when Christiana Care, which operates the hospital and other health-care facilities in Delaware, asked UD's School of Nursing to provide an on-site graduate program for interested employees. Christiana Care requested that the program focus on adult health, a field that enables students to choose from a wide range of specialties.

"When I heard about this program, I knew the time was right for me to go back to school," Collins says. "Not only was it my alma mater, but the classes were so convenient, and Christiana was paying for it as an employee benefit. It just seemed tailor-made for what I wanted."

The nurses who are enrolled in the program attend class one evening a week at the hospital. Plans call for the students to take three classes each year, enabling them to earn their master's degrees

in four years.

"During that time, with each year—in fact, with each course they take—their knowledge base and the quality of patient care they provide will increase," School of Nursing director Lisa Plowfield says.

She says interest among Christiana Care employees has been high, with more than 100 nurses attending sessions held last summer to explain the program. In the end, 29 students applied under the School of Nursing's usual graduate admissions standards, and 20 were selected to participate in the on-site program. The others decided to enroll in the University's traditional nursing master's degree program, taking two courses a semester on campus.

The program "is clearly a win-win for everybody," says Carol Boettler, Christiana Care's manager for patient services education. She says the hospital approached UD because it wanted to promote graduate education among its nurses and realized that nurses often have, not just demanding jobs, but also family responsibilities that make it difficult for them to schedule classes.

"With this program, the University gets more enrollment in its graduate programs, and nurses have a convenient opportunity to do something they may have wanted to do for a long time," Boettler says. "For Christiana Care, we have happier nurses who are excited to be learning, and we hope that will help us retain them as employees."

Patients benefit, too, she says.

"Having a master's-prepared nurse at the bedside is a great

advantage for the patient," Boettler says. "The more a nurse knows, the better the patient care will be."

The nurses enrolled in the program are motivated and enthusiastic, according to Amy Johnson, an associate professor of nursing at UD who also works part time at Christiana Hospital as a certified neonatal nurse. Johnson helped recruit and interview prospective students for the program, and she says they represent a broad cross section of nursing specialties and ages, although most have many years of professional experience.

"They're all really excited about this opportunity and about the convenience," Johnson says. "Instead of getting in their cars at the end of a shift and driving to Newark, they can just go downstairs to where their class is meeting. The hospital has gone out of its way to facilitate this. They even provided a pizza dinner one night when the students had to arrive early for class."

Another advantage of the program is attending class with colleagues, Collins says. "I already know half the students, and I see them regularly at work," she says. "It makes it feel just that much more of a supportive learning environment."

Many of the students are bedside nurses who want to continue in their present specialties, Johnson says. The program's focus on clinical adult health gives students the flexibility to choose an area of interest from such specialties as cardiology, orthopedics or rehabilitation.

Many other students are nurse educators who hope to continue in that role. Plowfield says that points out another benefit of the program.

"The nursing shortage that the United States is experiencing today is in many ways a nursing faculty shortage," she says. "Nurse education programs can't expand and accept more students if they don't have enough qualified faculty to teach them."

The University is trying to ease the shortage in Delaware by preparing more graduate-level nurses who can help educate new nurses, at UD and at other institutions in the state, Plowfield says.

At Christiana Care, Boettler says, the goal is the same.

"We feel that having this graduate program with the University will help us develop our future leaders from among our own employees," she says. "We feel that we're 'growing our own,' and that's a big benefit."

A small specialty for the smallest patients

In addition to the collaboration with Christiana Care, the School of Nursing is offering another graduate nursing specialty as part of a three-state consortium.

The Neonatal Education Consortium began in 2004 at Thomas Jefferson University in Philadelphia and now also includes UD and the College of New Jersey. Funded by a federal grant, the consortium seeks to address the high rate of infant mortality in the greater Philadelphia region by educating more neonatal nurse practitioners.

"This is a very specialized field, with a relatively small number of students, so it isn't efficient for the University of Delaware to run an entire program ourselves," Plowfield says. "By partnering with Jefferson, we can help keep this specialty alive in the state of Delaware."

Students who enroll in the program at UD take their core academic courses on the Delaware campus and then go to Jefferson to complete the program, taking specialized clinical coursework there. Their degree is awarded by UD. Full-time students can complete the program in 15 months, while part-time students will earn their graduate degree in two to four years.

"We are delighted to have the opportunity to collaborate with Jefferson in the education of neonatal nurse practitioners," Betty Paulanka, dean of the College of Health Sciences, says. "This partnership will help us to meet a critical need for advanced practice nurses in Delaware. This need could not be met without sharing resources with Jefferson's nursing faculty." ♦

—Ann Manser, AS '73, CHEP '73



Michelle Collins, CHS '91, is among the first 20 students to enroll in the clinical master of science degree in nursing now being offered at Christiana Hospital.

KATHY F. ATKINSON

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HONORS & ACHIEVEMENTS

Billy Price Glass, professor emeritus of geology, was presented the prestigious Barringer Medal and Award at the annual meeting of the Meteoritical Society in September, in recognition of "outstanding work in the field of impact cratering or work that has led to a better understanding of impact phenomena." Glass, who retired from UD July 1, continues to work with graduate students and teach.

Jewel Walker, Edward F. and Elizabeth Goodman Rosenberg Professor of Theatre, was awarded a 2005 Barrymore Award for Choreography and Movement for his original creation, *Tuesday*. The piece recently was performed by the Amaryllis Theatre Company in Philadelphia, where it was directed by Stephen Patrick Smith, an alumnus of UD's Professional Theatre Training Program.

David Usher, associate professor and associate chairperson of the Department of Biological Sciences, was honored in September with a National Faculty Mentor Role Model Award from Minority Access Inc., for expanding the pool of minority researchers through mentoring and supporting minority students.

Two departments received high rankings in a recent issue of *Chemical and Engineering News* for the number of their graduates. UD's Department of Chemistry and Biochemistry is ranked 13th out of 631 bachelor's degree programs in the nation, tied with Purdue University. The Department of Chemical Engineering is ranked third in the doctoral degree category.

Arno Loessner, associate professor in the School of Urban Affairs and Public Policy and faculty fellow in the Center for International Studies, received a Fulbright award for a November visit to Babes-Bolyai University in Romania, where he focused on teaching and advising in the university's master's degree program in public administration.

Mark Stanton, associate professor of psychology, was the 2005 recipient of the Pavlovian Investigator Award, a prestigious international award given annually by the Pavlovian Society for distinguished

contributions to the field of behavioral neuroscience. Stanton also recently attained fellowship status in the American Psychological Association.

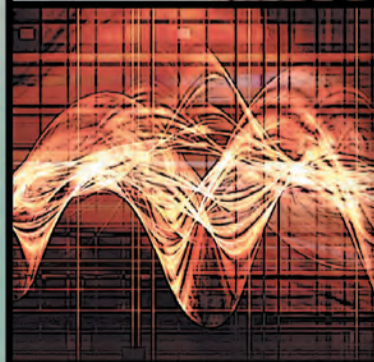
Community Connectors, a program sponsored by UD's Center for Disabilities Studies, received a Christopher Reeve Foundation Quality of Life grant of \$5,000 to improve the well-being of persons living with spinal cord injuries or other types of paralysis. Community Connectors is an interactive program in which undergraduate and graduate students serve as mentors, partners and liaisons with youths and adults living with disabilities.

Ed Kee, director of agriculture for Delaware Cooperative Extension and an instructor in plant and soil sciences, and **Carol Vukelich**, director of the Delaware Center for Teacher Education and the Hammonds Professor in Teacher Education, received the 2005 Ratledge Family Awards for Delaware Public Service. The awards were established to recognize the contributions of University community members to benefit all Delawareans.

Deborah Andrews, professor of English, received the Meada Gibbs Outstanding Teacher Award from the Association for Business Communicators, in recognition of her work as a teacher and as the editor of *Business Communication Quarterly*, which focuses on the teaching aspects of business communications.

The University's Sexual Offense Support (SOS) Program was honored in November with the 2005 Delaware Governor's Outstanding Group Volunteer Service Award for its 30 years of work providing support for the victims of sexual assault, date rape, date rape drugs and other dating violence.

James Kolodzey, Charles Black Evans Professor of Electrical and Computer Engineering, has been awarded a highly competitive IBM Faculty Award, which recognizes research quality and its relevance to industry. Kolodzey studies emitters and detectors of signals in the terahertz frequency range, which he has described as the "final frontier" in the study of electromagnetic waves. ♦



Tiny bombs that target tumors

University of Delaware researchers are opening a new front in the war on cancer, bringing to bear new nanotechnologies for cancer detection and treatment and introducing a unique nanobomb that can literally blow up breast cancer tumors.

Balaji Panchapakesan, assistant professor of electrical and computer engineering, recently has reported on the discoveries in the journals *NanoBiotechnology* and *Oncology Issues*.

He is the lead investigator for a team that also includes Eric Wickstrom, professor of biochemistry and molecular biology at Thomas Jefferson University in Philadelphia, and his student Greg Cesarone; UD engineering graduate students Shaoxin Lu and Kousik Sivakumar; and UD postdoctoral researcher Kasif Teker.

Panchapakesan says this basic research is in the very early stages of inquiry and will take extensive testing and years of clinical trials before the nanobombs could actually be used in medical applications to treat human beings.

"Make no mistake, we are focused on eradicating cancer," Panchapakesan says, explaining that the nanobombs are the result of work over the past two years with carbon nanotubes, which are atoms of carbon arranged in tubular form. Originally, he says, the research team was looking at the use of the carbon nanotubes as drug delivery vehicles. Because they are smaller than a single cell, the nanotubes can provide for the highly selective injection of drugs into individual cells.

But, as they undertook various experiments, the researchers made a startling discovery, Panchapakesan says. "When you put the atoms in different shapes and forms, they take on different properties at the nanoscale," he says. "We were experimenting with the molecules and considering optical and thermal properties, and we found we could trigger microscopic explosions of nanotubes in a wide variety of conditions."

Explosions in air of loosely packed nanotubes have been seen before in an oxygen environment, creating ignition. However, the work reported by Panchapakesan uses the localized thermal energy imbalance to set off explosions that are intrinsic in nature.

Panchapakesan says the nanobombs are just that—tiny bombs on the nanoscale. "They work almost like cluster bombs," he says. "Once they are exposed to light and the resulting heat, they start exploding one after another."

The bombs are created by bundling the carbon nanotubes. With a single nanotube, the heat



KATHY F. ATKINSON

Balaji Panchapakesan and his colleagues have developed a promising method of cancer detection and treatment. Laser light (right) ignites bundles of nanotubes, which explode like tiny cluster bombs.

generated by the light is dissipated by surrounding air. In bundles, the heat cannot dissipate as quickly and the result is "an explosion on the nanoscale," Panchapakesan says.

When the UD researchers saw the explosions, they realized it might be possible to use the microscopic bombs to kill cancer cells. They re-created the explosions in solutions including water, phosphate and salt, which meant the nanobombs could be used in the human body. In fact, the explosions were even more dramatic in saline solutions, Panchapakesan says.

"The nanobomb is very selective, very localized and minimally invasive," he says. "It might cause what I would call nanopain, like a pin prick."

He believes the nanobomb holds great promise as a therapeutic agent for killing cancer cells, with particular emphasis on breast cancer cells, because its shockwave kills the cancerous cells as well as the biological pathways that carry instructions to generate additional cancerous cells and the small veins that nourish the diseased cells. Also, it can be spread over a wide area to create structural damage to the

cancer cells that are close by.

The nanobombs are superior to a variety of current treatments because they are powerful, selective, non-invasive, nontoxic and can incorporate current technology, including microsurgery.

An advantage over other carbon nanotube treatments being considered by scientists is that with nanobombs, the carbon nanotubes are destroyed along with the cancer cells. Once the nanobombs explode and kill cancer cells, macrophages can effectively clear the cell debris and the exploded nanotube along with it.

Other treatments retain the carbon nanotubes and nanoparticles intact. If the material finds its way to the kidney or accumulates in the blood vessels, the nanoparticles might cause blockages and create problems, Panchapakesan says. Also,

he says, the nanobomb route is probably the only way to use nanotubes without any cytotoxicity, as the nanotubes are destroyed completely.

Current surgical techniques are not precise, and cancerous cells often are left behind. In addition, cancers in some part of the body, such as arteries and veins, sometimes are considered inoperable. Nanobombs can be used to target any remaining cancerous cells and can be used in any part of the body, allowing the creation of nanobomb therapy for a wide variety of cancers, Panchapakesan says.

He calls the method far better than modern chemotherapy, which is nonselective, kills normal cells as well as cancerous cells and leads to a decline in the quality of life for the patient. "This is valuable in patient management, pain management and overall quality of life," he says.

Another advantage, Panchapakesan says, is that the nanobomb is a "very simple technique." He adds, "We are just getting started in this area. There is plenty of work ahead to successfully translate this into clinical medicine."

In addition to treatment, he says he believes

nanotechnology can provide new tools for cancer diagnosis through the use of tiny nanosensors.

"In the future, my vision is that people will have at-home kits that can detect cancer. After work, they will be able to go to a clinic, be treated with nanobombs and go home," Panchapakesan says. While the initial experiments are on breast cancer cells, he also is working to extend the method to prostate cancer and pancreatic cancer.

He also foresees nano-bio-robots or nano-surgical tools that can be placed inside the body to remove tumors in areas previously inaccessible using traditional treatment methods.

The team's findings are the result of interdisciplinary research in such fields as cancer biology, physics, electrical and computer engineering and chemistry, Panchapakesan says. "Interdisciplinary research provides for fresh perspectives and brings about new ideas," he says.

Funding for the research was provided in part by the Department of Defense's Congressionally Directed Medical Research Program. ♦ —Neil Thomas, AS '76





A step-by-step study of arthritis risk

Whether you're walking across your living room, taking a leisurely stroll in the park or running a marathon, every step you take hammers your knee with some degree of force from your body weight. Over the course of a lifetime, this repeated stress almost inevitably leads to damage—often in the form of osteoarthritis, a degenerative joint disease that causes pain and stiffness.

"We expect to see denser bones and thinner cartilage as a person ages, and both those conditions are markers for osteoarthritis," David Hudson says. "There's no doubt that osteoarthritis is related to age. It's a wear-and-tear condition."

Hudson, CHS '99M, '04PhD, assistant professor of health, nutrition and exercise sciences, is using new tools to track the development of osteoarthritis. A physical therapist for 13 years before returning to UD to earn graduate degrees in biomechanics and movement science, Hudson says he hopes to find ways to detect early signs of the disease. By doing so, he says, it will be possible to devise better methods of preventing or delaying its progression or minimizing its effects.

Getting older and being overweight already have been identified as risk factors for osteoarthritis, but Hudson says he hopes his research can identify additional ones.

"The more risk factors we can identify for developing osteoarthritis, the more we can do to mitigate it," he says. "Tracking whether the bones are getting denser and/or the amount of cartilage is decreasing can be a gauge of knee health. I'm researching whether those changes can show if you've already developed osteoarthritis or if you're heading that way."

Hudson's research focuses on the shape of the bones above and below the knee, as well as the "twist" that occurs within those bones during walking or other movements.

"There's a big variation in bone shape, even within a group of healthy people," he says, citing such common conditions as so-called "bowlegs" and "knock-knees."

He also studies the cartilage around

the knee, using magnetic resonance imaging (MRI) to assess any thinning or deterioration. Although most researchers and clinicians use X-rays to estimate cartilage loss, Hudson says MRIs are a more accurate tool.

In explaining how cartilage diminishes over time, he compares it to the thickly cushioned insole of a new pair of sneakers. As a person wears those sneakers day in and day out, the pounding of his or her feet slowly begins to flatten out the air pockets of the cushion, making the insole stiffer and less able to absorb the shock of walking. Eventually, the insole becomes thin and stiff and begins to crack.

In the same way, Hudson says, cartilage around the knee breaks down from years of absorbing stress. As it breaks down, the tibia, the major bone in the lower leg, bears more of the brunt of the stress. Hudson is investigating whether the top of that bone, just below the kneecap, begins to thicken in response and also becomes less able to absorb the shock. If so, that thickening would cause the cartilage to break down even faster as the stress on it increases.

"We don't know which is affected first, the bone or the cartilage, but we know it's a vicious cycle," Hudson says. "If you get osteoarthritis in your knees or your hips, it can really immobilize you. It can be devastating."

The disease is increasingly the subject of research, at UD and elsewhere, especially because, as the Baby Boom generation ages, the incidence of osteoarthritis is expected to grow. To study cartilage breakdown, researchers traditionally have used X-rays of the knees. Because X-rays don't show the cartilage itself, those studying the disease have measured the area between the top of the tibia and the bottom of the kneecap and assumed

that space was filled with cartilage.

Now, using MRIs, the actual cartilage can be seen on the images, allowing for more precise measurements of deterioration, Hudson says. MRIs also have the advantage over X-rays of not exposing research subjects to radiation. They have been too expensive to use in previous research, but as the cost has come down, they have become a more practical tool, Hudson says.

He says he became interested in studying bone shape and a person's gait in relation to osteoarthritis by observing his physical therapy patients who had the disease, as well as his own grandmother's condition.

"I noticed in those patients and in my grandmother that their leg structure seemed to change as their osteoarthritis progressed," he says.

Hudson's current work involves a

pilot study of women, who develop osteoarthritis more frequently than men. The 15-20 women in the study represent a range of ages from their 20s to their 70s. He plans to assess the shape and density of their bones, the amount of knee cartilage and the force that's put on their joints as a result of their gait. By studying those factors over time, he says, he hopes to gather sufficient data about osteoarthritis markers to move on to a large-scale study.

"Eventually, I think, my research will take me back to children, how their skeletons develop and how they walk," Hudson says. "If a certain type of bone structure or gait is a true risk factor, then maybe the chance of developing osteoarthritis can be addressed at a very early age. But, that's research for the very long term." ♦

—Ann Manser, AS '73, CHEP '73



KATHY F. ATKINSON

David Hudson uses an ultrasound machine to measure the amount of torsion, or "twist," in a tibia he is examining (above).

Hudson uses MRI technology to study images of the knee (left) and assess the deterioration of cartilage that can help track the development of osteoarthritis.

A hard look at software

Do computer users rely too heavily on their spell-checking software?

Andrea Everard thinks they do—especially since those programs often fail to recognize some common mistakes, including incorrect homonym use, such as “two” and “there” in the preceding sentence.

“People are far too trusting of computers,” Everard, assistant professor of accounting and management information systems in the Lerner College of Business and Economics, says. “A spell-checking program is certainly a good screening tool for writers, but it misses many errors.”

Everard, much of whose research focuses on human-computer interaction (HCI), conducted lab tests in which she and her colleagues asked volunteers to proofread an error-filled letter on a computer screen. One group of subjects was able to use the spell-checking software, while the other was told not to use it.

“We found that when people had the spell-checker on, they were much less likely to read the letter carefully,” Everard says. “In fact, native English speakers who relied on a spell-checking program didn’t do any better at proofreading than people who weren’t fluent in English.”

In addition, the researchers found that when a spell-checking program notes a possible error and offers an alternate spelling, people tend to accept the suggested revision even if it is incorrect or nonsensical, Everard says.

Everard began the spell-checking research at the University of Pittsburgh’s Katz School of Business, where she earned her doctoral degree in 2003, working with Prof. Dennis Galletta and fellow researchers Alexandra Durcikova and Brian Jones. Since joining the UD faculty later that year, she has extended her HCI research to examine such questions as how spelling and other types of errors on a web site influence consumers, as well as how consumers react to advertising on the web.

“When it comes to errors that people perceive on a web site, we’ve learned that it’s not, ‘Three strikes, and you’re out.’ It’s ‘One strike, and you’re out.’ People are very unforgiving if they encounter presentation flaws, and they have a very poor opinion of the site if they find, or just perceive, even one flaw,” Everard says. Those presentation flaws might be spelling mistakes, but they also might be design problems, such as missing photos or links that direct the user

to sites that are under construction.

“What consumers think of the site then affects how likely they are to continue on it, to use it again or to buy things from it, so the research can provide useful information for online marketing,” Everard says.

The lesson for businesses using the web for marketing, she says, is to “test, test, test” every new site on as many focus groups and as many different types of consumers as possible before activating it. If people think there’s an error, even if there isn’t, they give the site a low rating, she says.

“It’s all about perception, which is subjective,” she notes. “That’s even more reason to do a lot of testing before going live. Marketers should make their sites as perfect as they can.”

In addition to exploring how consumers are influenced by presentation flaws, Everard’s research looks at the effects of online advertising. Not surprisingly, she says, consumers are turned off by pop-up ads that interrupt their reading on a web site. But, she also has found that viewers find “pop-under” ads, which appear after a web site is closed and so do not interfere with the use of the site, just as bothersome.

“Apparently, people are still annoyed at having to do something extra [close the pop-under ad] before continuing on with their next task,” she says.

In general, Everard has found that banner ads, displayed across the top of the web site, are the least irritating to consumers. She also is looking at whether the subject matter of an ad affects consumers’ perception of it. Someone researching real-estate listings of homes for sale, for example, might find an ad about mortgage rates helpful rather than an intrusion. An ad on an unrelated topic, however, might be viewed with annoyance.

“I find that HCI is an area of information technology that’s fun to research,” Everard says. “It’s not highly technical, like programming, and so most people can relate it to their everyday lives.

“I want to have useful findings, rather than doing research just for the sake of research. This isn’t the kind of research that will save someone’s life, but I feel that I’m coming up with information that marketers and companies can actually use.”

As Everard continues her work with HCI, she also is researching cross-cultural issues in information technology. The daughter of an English father and Austrian mother,



KATHY F. ATKINSON

Andrea Everard studies aspects of human-computer interaction, including the use of spell-checking software and reactions to pop-up ads.

she was born in Africa and lived most of her life in cosmopolitan Montreal, where she spoke English at home and French in school. That background, she says, might be what has led to her interest in exploring different cultures.

“I started my research in cross-cultural issues by looking at the adoption of technology in South America, specifically in Uruguay and specifically examining the differences in technology in that country and the United States,” she says.

For the past two years, the focus of her international work has shifted to the Arab world.

Everard currently is working on her third article with Mohamed El Louadi, a colleague who now lives in his native Tunisia, on information technology in the Arab world. The two have collaborated on studies involving the digital divide, or the disparity in access to computer technology, between the West and the Arab world, as well as within the Arab world, where the wealthy Gulf states have vastly different technological resources and infrastructure than the region’s other nations.

She and El Louadi also are examining ways in which information technology (IT) can be brought into homes, enabling Arab women—who often face cultural

and religious restrictions on their movements and professional interactions with men—to become employed and productive by telecommuting.

“All over the Arab world, men are learning IT skills and then leaving for jobs in Japan, the United States or western Europe,” she says. “So, just like in wartime, it’s going to fall to women to pick up the productivity and do those jobs at home.”

In addition to benefiting their nation’s productivity, telecommuting from home could enable Arab women to make use of their skills and education without violating restrictions on such activities as driving, going out alone or speaking face to face with men, Everard says. She adds that if women are working with computers in their homes, their children—particularly their daughters—will become familiar with the technology, as well.

Arab women have not yet started telecommuting in great numbers, but the trend has started to take hold in Tunisia and is expected to expand, Everard says.

“If people say that women aren’t interested in technology, then we say: Bring the technology into the home, and they will become much more interested and also proficient,” she says. ♦

—Ann Manser, AS ’73, CHEP ’73



Delaware's roads scholars

When David Ames looks at a road, he sees a story—a beginning and an end, connected by a plot. The plot might be based on history or architecture or culture, but the director of UD's Center for Historic Architecture and Design (CHAD) says it's there, if passers-by know where and how to look for it.

Now, Ames and his student research assistants are working to help others learn to see roads in new ways that can reveal their significance. Using the National Scenic Byways Program and Delaware's Scenic and Historic Highways Program as their starting point, the researchers are developing a guide for citizens, community groups and municipalities to research roads that they find interesting.

The goal is to encourage and enable those interested parties to obtain official designation as Scenic and Historic Highways for significant roads in Delaware. Such designation can help promote, preserve and enhance a roadway and the land alongside it.

"Our research has been focused on putting together the material in a form that local people can use to research roads in their communities," Ames says. "We want it to be a step-by-step guide that helps people answer the question: What story does this road tell? And, it has to be a story that's visible to travelers as they go along the road."

Designation as a Scenic and Historic Highway must be based on one or more of six specified "intrinsic qualities," Ames says. Those categories are scenic, historic, natural (referring to the land formations visible from the roadway), cultural, recreational and archaeological.

"Roads with a primary intrinsic quality that's scenic are what we call 'Oh, wow!' roads," Ames says. "They're conventionally beautiful, and everyone driving along them would probably agree that they're beautiful. Some of the other types of intrinsic qualities aren't as obvious. A road that goes through an urban, industrial area might have a fascinating history, but most travelers wouldn't think it's pretty."

That's where research comes in, Ames says, and the manual the center is developing aims to teach people how to research a road, how to evaluate its primary intrinsic quality needed for Scenic and Historic designation, how to document key aspects of the road in words and photographs and how to use standard terminology to nominate it for the designation. The process also emphasizes community

input, with applicants encouraged to seek residents' support and personal recollections about the road.

"People don't usually think of something that was built in their lifetime as historic, but a 50-year-old road could certainly qualify," Ames says. "We take so much for granted, but once you really see something and know more about it, you have a new context."

The project's researchers have spent three years developing the manual, and a related Power Point

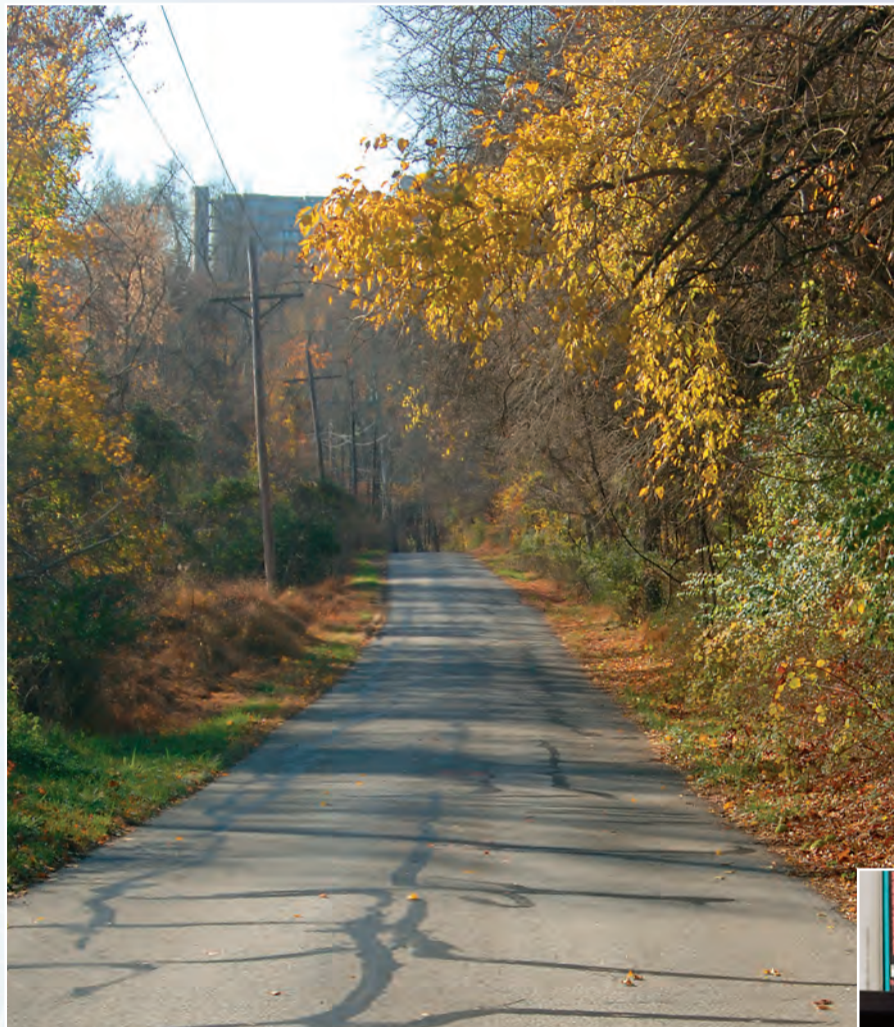
The draft version of the CHAD manual, titled *Let Your Road Tell Its Story*, now is being field-tested by Ames' students, who visit various roads throughout Delaware and apply the guidelines as if they were community members starting the process from scratch. Plans are for the manual to be finalized by the end of the year.

Ames says the guide is specifically designed to be useful whether a road is in a rural or an urban area, whether it is in northern or southern

As the researchers fine-tune the manual, they also are seeking Scenic and Historic Highway status for a specific Delaware road that has its own story to tell. The New Castle County government has contracted with CHAD to apply for the designation for Philadelphia Pike, a five-mile stretch of urban roadway that runs from Wilmington to the Delaware-Pennsylvania line and represents more than three centuries of history.

Originally known as Kings Highway, Philadelphia Pike was built in Colonial times and became part of a post road running from Boston to the Carolinas. In the early 19th Century, it became a private turnpike and then, during World War I, was bought by New Castle County and again became a public road. Ames says the researchers found that it played an important role in that war, when the nation's railway system collapsed from overuse and truck convoys became the main method of transporting materials and supplies.

Ames says Philadelphia Pike also is historically significant because of its engineering. Delaware—thanks largely to the pioneering efforts of T. Coleman du Pont in building Du Pont Highway (U.S. Route 13) the length of the state—"was in the forefront of highway design" in the early 20th Century, Ames says. Philadelphia Pike is lined with historic properties, as well, including 18th- and 19th-Century houses and the former Phoenix Steel plant (now



KATHY F. ATKINSON

Scenic roads, like this one near the UD campus, are easy to recognize, but David Ames says a road doesn't need pretty scenery to be significant.

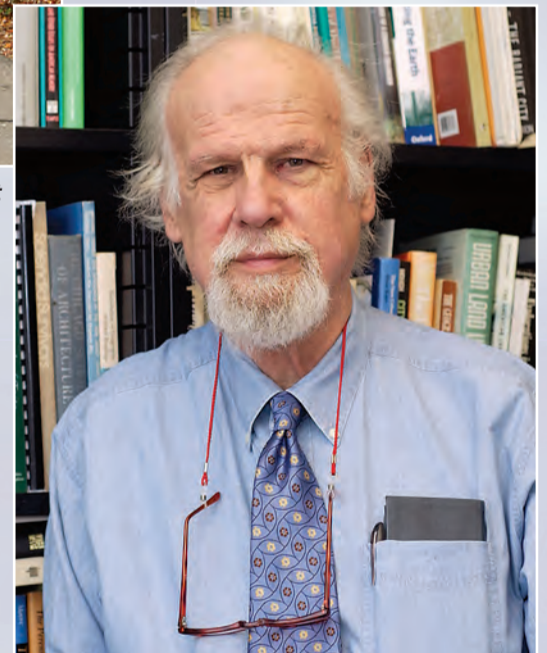
presentation that can be shown to community organizations and at public meetings, under a contract from the Delaware Department of Transportation. The department manages the state's Scenic and Historic Highways Program, which was established in 2000.

The program is Delaware's counterpart to the National Scenic Byways Program, which the Federal Highway Administration describes as "a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States." Since 1992, the national program has provided funding for about 1,500 state and nationally designated byway projects in 48 states. In Delaware, two road systems—in the Brandywine and Red Clay valleys—have received official designation.

Delaware and for whichever of the six intrinsic qualities is predominant.

In addition to explaining the research and application process for Scenic and Historic designation, the manual also details the next step, which is the preparation of a "corridor management plan" to enhance and preserve the road's significance into the future. Ames says this is particularly important as development tends to take over and change the character of areas around the state.

"Sprawl is affecting everything, and it's particularly devastating to scenic views," Ames says. "We're very concerned about that, especially because roads are magnets for development."



CitiSteel), one of the oldest still-operating steel mills in the United States.

"We've had community meetings where people told us about their favorite spot along the road and their memories of it," Ames says. "Between the historic research and the interaction with the community, it's been a very interesting project." ◆

—Ann Manser, AS '73, CHEP '73

Red Planet shaped by familiar forces

Norman Ness, retired professor at UD's Bartol Research Institute, and a team of NASA scientists have discovered additional evidence that Mars once underwent plate tectonics, the slow movement of the planet's crust, like the present-day Earth.

A new map of the distant planet's magnetic field made by the Mars Global Surveyor spacecraft reveals a world whose history was shaped by great crustal plates being pulled apart and smashed together.

Scientists first found evidence of plate tectonics on Mars in 1999. Those initial observations, also done with the Mars Global Surveyor's magnetometer, covered only one region in the Southern Hemisphere. The data were taken from differing heights above the crust while the spacecraft performed an aerobraking maneuver.

The new high-resolution magnetic field map, the first of its kind, covers the entire surface of Mars and is based on four years of data taken in a constant orbit. Each region on the surface has been sampled many times.

"The more measurements we obtain, the more accuracy and spatial resolution we achieve," Jack

Connerney of NASA's Goddard Space Flight Center in Greenbelt, Md., says.

The new map supports and expands on the 1999 results, Ness, who retired from UD in June, says. "Where the earlier data showed a 'striping' of the magnetic field in one region, the new map finds striping elsewhere," he says. "More importantly, the new map shows evidence of features—transform faults—that are a 'tell-tale' of plate tectonics on Earth."

Each stripe represents a magnetic field pointed in one direction, either positive or negative, and the



DUANE PERRY

Norman Ness, who came to UD after a distinguished career with NASA, holds a model of the Voyager 1 spacecraft.

alternating stripes indicate a "flipping" of the direction of the magnetic field from one stripe to another. Scientists have seen similar stripes in the crustal magnetic field on Earth.

Stripes form whenever two plates are being pushed apart by molten rock rising up from the mantle, such as along Earth's Mid-Atlantic Ridge. As the plate spreads and cools, it

becomes magnetized in the direction of the Earth's strong global field. Since that field changes direction a few times every million years, on average, a flow that cools in one period will be magnetized in a

different direction than a later flow. As the new crust is pushed out and away from the ridge, stripes of alternating magnetic fields aligned with the ridge axis then develop. Transform faults, identified by shifts in the magnetic pattern, occur only in association with spreading centers.

To see this characteristic magnetic imprint on Mars indicates that it, too, had regions where new crust came up from the mantle and spread out across the surface. When new crust comes up, old crust plunges back down—the exact mechanism for plate tectonics.

Connerney says the concept of plate tectonics provides a unifying framework to explain several Martian features, including the magnetic pattern itself. Also, the Tharsis volcanoes lie along a straight line. These formations could have formed from the motion of a crustal plate over a fixed "hotspot" in the mantle below, just as the Hawaiian islands on Earth are thought to have formed.

The results were published in a recent edition of the Proceedings of the National Academy of Science. ♦

—Martin Mbugua

Mechanical engineer learns from failure

Anette Karlsson is not afraid of failure. In fact, the assistant professor of mechanical engineering has built a successful research career on a foundation of failure.

"I'm interested in seeing how structures and materials fail, because that's the only way to understand how to design better ones—ones that won't fail," Karlsson says. "I have two main projects right now, and in some ways they're very different from each other because one involves hard ceramic coatings, and the other involves a soft polymer membrane.

"What the projects have in common is that they both deal with how materials fail."

Karlsson's longer-running research project concerns the coatings placed on gas turbine engines to protect the components against the high temperatures at which such engines operate. Her newer research interest is hydrogen fuel-cell technology, in which she is exploring the reasons a thin polymer membrane in the cells breaks down over time. In both cases, her work seeks to find ways to slow the degradation of materials and extend their useful lives.

In 2004, Karlsson was one of 26 scientists nationwide who were recognized with a grant from the prestigious U.S. Office of Naval

Research Young Investigators Program. Her grant of \$360,000 was awarded for her work in investigating a novel approach to establishing lifetime material performance for multilayered coated structures.

"We start by conducting experiments on gas turbines, which can be stationary [in power generating plants, for example] or mobile [such as aircraft engines], to see how they fail," Karlsson says. "From there, we develop numerical computer models to try to predict what will happen based on the thousands of cycles that a turbine goes through. You have to match the experiments with their theoretical calculations."

If successful, she says, these numerical models eliminate the need to run experiments over and over to test the lifespan of coatings. By predicting the rate at which coatings become deformed and fail, the models also eliminate the need for a



Anette Karlsson studies the ways structures and materials fail.

computer to do the same complex calculations repeatedly, she says.

"The coatings I work with have multiple layers, each with its own function," Karlsson says. "To develop a model, you need to separate out the essentials. I start with a very simple model, with just one layer, and then gradually add layers and complexity."

Right now, she says, such coatings on aircraft engines are considered a back-up system: If they're removed, the engine still functions. The goal of her research is to design longer-lasting and more protective coatings.

Karlsson also is one of numerous researchers in the College of Engineering who are working with various aspects of hydrogen fuel cells, a technology that has the potential to create clean, economical power that does not consume fossil fuels. Automotive engines, power plants and even laptop computers might someday operate using fuel cells instead of burning gasoline or

coal or using batteries, proponents of the technology say.

Hydrogen fuel cells contain plates, each made of a proton exchange membrane sandwiched between two sides of carbon. The cells take in hydrogen and air, create electricity and produce only water and heat, with no greenhouse-gas or other emissions.

In collaboration with Michael Santare, professor of mechanical engineering, Karlsson's fuel cell research focuses on the membrane, which she says is one of several issues under investigation by scientists seeking ways to make fuel cells operate more efficiently and for longer periods of time. She adds that a combination of mechanical failure and chemical degradation leads the membrane to fail eventually.

"In our lab, we're testing the membrane under various environmental conditions, such as different temperatures and humidity levels," Karlsson says. "Then, we can put those factors into our model and see how and why the membrane fails."

Karlsson joined the UD faculty in 2002. Before earning her doctorate from Rutgers University in 1999, she worked as an engineer at Saab Aerospace in Sweden, where she also investigated materials failure in aircraft. ♦

—Ann Manser, AS '73, CHEP '73



Confronting fears, changing lives

Researchers in the Department of Psychology have demonstrated that a highly effective technique for treating social anxiety can be exported from where it was developed and taught successfully to less experienced therapists, allowing for widespread use of the method.

"Such 'dissemination' of practice techniques from specialty clinics to the community would provide treatment opportunities for more people who suffer from the disorder," Robert Simons, professor of psychology, says.

He says UD researchers have used the method to treat seven people, many of whom made "enormous changes in their lives" as a result. "I don't want to use the word

'miraculous,' but in some cases, the results were close to that. In cases where it was successful, it really made a difference in how people were able to function," Simons says.

Social anxiety, he says, is different from mere shyness. In people for whom fear of social situations has become a phobia, their extreme anxiety severely restricts their lives, he says. People who suffer from the condition may be afraid to talk to a clerk in a store, to ask or answer a question in class, to eat in the lunchroom where they work or even to answer their home telephone.

"Some of those things might be just a little scary for them, but other things—like speaking at a business meeting or attending a big party or having house guests—are terrifying," Simons says. In addition to limiting them socially, the anxiety can prevent sufferers from applying for jobs or promotions and harm them financially as well, he says.

Edna Foa, director of the University of Pennsylvania's Center for the Treatment and Study of Anxiety, and her associates spent years of research in developing a 16-week treatment plan for those who suffer from social anxiety. The center tested the treatment method, found it effective and wanted to explore whether it could be implemented in other settings if practitioners were trained to administer it.



KATHY F. ATKINSON

Prof. Robert Simons (right) and doctoral student Jason Moser are conducting research using a new treatment for social anxiety that has proved highly effective in helping patients change their behavior.

"We decided to test it at Delaware," says Simons, who spent a 2001 sabbatical at Penn when the treatment was being developed. "Both the lab at Penn and our clinical group here are interested in manualized, empirically validated treatments. Those are treatments that have been demonstrated to work and that consist of specific techniques that are documented in such a way that they can be explained to and then implemented by others."

He says the University was particularly interested in participating because the treatment was new and because social anxiety is a relatively common condition. Jason Moser, who had been a research assistant at Penn and now is a doctoral student at UD, has assisted Simons with the project for the past year.

During that time, seven individuals have completed the treatment program at UD, with Moser and a few other clinical graduate students serving as therapists. Simons says that all seven clients made improvements. Four of the seven did especially well in overcoming their anxiety. Overall, the UD clients showed a 50 percent reduction in their symptoms of social anxiety, a result that is identical to that found by the Penn researchers.

"Some of them improved so much that they actually seek out opportunities now for social

interaction," Moser says.

The treatment begins with the therapist educating the client about how common social phobias are and the various ways people cope with them. Simons says the two aspects of social anxiety are an extreme internal focus of attention, in which individuals are so worried about their behavior and about embarrassing themselves that they are unable to pay adequate attention to other people, and so-called "safety behaviors." Those are actions the individual takes in social situations to try to feel more comfortable, but they often backfire.

For example, Moser says, a person may be so worried about saying something wrong in a group that he or she spends long periods of time thinking about exactly how to phrase a comment. As a result, the conversation often moves on, and the person never has a chance to participate.

In the treatment sessions, therapists have the clients confront their fears, beginning with the least frightening situations and gradually working up to more difficult ones. Meeting weekly, for about an hour or 90 minutes at a time, therapists have accompanied a client to a store while the client asks the clerk for information. They have brought other students and faculty members into a room, allowing the client to practice making conversation in a group. Some sessions are

videotaped so the clients can see themselves behaving in different ways in social situations.

"We want to help them see that many of the things they're doing in terms of their safety behaviors are actually counterproductive and getting in their way," Moser says. "We want them to become more externally focused in the way they behave."

Simons says the videotape itself is "a powerful tool" because it shows clients that they are not behaving stupidly, as they had feared, but that instead they look very much like everyone else.

"Clients have to work hard during the treatment," Moser says. "They're confronting their fears during every session."

The UD research has shown that therapists other than those who developed the technique can learn and use it effectively with clients, Simons says.

"The goal is not to make someone anxiety-free but to bring their anxiety levels down into the normal range," he says. "This is a very effective treatment for a disorder that's prevalent and that doesn't usually go away on its own."

Simons says he would like to continue and expand the research by working with additional clients. The therapists have worked with University students and also with members of the community of all ages, including at least one teenager, through UD's Psychological Services Training Center. The center is a community-based mental-health clinic that serves as the psychology department's training facility for graduate students enrolled in the department's clinical training program.

"We would like to get the word out that this is a treatment we can do," Simons says. "It's an effective service we can provide to the community, and it's a good clinical skill for our own students to learn."

For more information about participating in the treatment, contact Simons at (302) 831-2389 or e-mail [rsimons@udel.edu].

—Ann Manser, AS '73, CHEP '73

Energy project gets its day in the sun

A broad consortium led by UD could receive nearly \$53 million in funding—with the bulk of the money coming from the Defense Advanced Research Projects Agency (DARPA)—to more than double the efficiency of terrestrial solar cells within the next 50 months.

The University's Consortium for Very High Efficiency Solar Cells, which consists of 15 universities, corporations and laboratories, could receive up to \$33.6 million from DARPA, if all options are awarded, and another \$19.3 million from UD and corporate team members. Those corporate members may include DuPont, BP Solar, Corning Inc., LightSpin Technologies and Blue Square Energy.

The consortium is being led by Allen Barnett, principal investigator and research professor in the Department of Electrical and Computer Engineering, and Christiana Honsberg, co-principal investigator and associate professor of electrical and computer engineering.

The award is the largest in the history of solar energy research, according to Rhone Resch, president of the Washington, D.C.-based Solar Energy Industries Association. "I applaud DARPA for recognizing the tremendous potential of solar energy to provide reliable electricity to our troops in the field and to improve our energy security here at home," Resch says.

"The University of Delaware is very excited by the support provided by DARPA and our corporate partners for this important research," UD President David P. Roselle says. "We look forward to taking a lead role in this project, which is one we believe will provide for a wholesale advance in the efficiency of solar cells."

Provost Dan Rich notes that solar energy research has a long history at the University and called the newest project "significant."

"This project is of vital importance, given the need for alternative sources of energy," Rich says.

The DARPA program calls upon the consortium to develop and produce 1,000 Very High Efficiency Solar Cell (VHESC) prototypes that are affordable and that operate at efficiencies of at least 50 percent. Currently, high-end solar cells operate at a peak efficiency of 24.7 percent, and solar cells off the production line operate at 15-20 percent efficiency.

The consortium's goal is to create solar cells that operate at about 54 percent efficiency in the laboratory

and 50 percent in production, Barnett says.

The VHESC would have immediate application in the high-technology military, which increasingly relies upon a variety of electronics for individual soldiers and the equipment that

The award to the UD-led project is the largest in the history of solar energy research.

new, very high performance crystalline silicon solar cell platform and then adding multiple innovations. They had been working on very high efficiency solar cells long before learning of the DARPA program.

An important new feature is based on novel

approach, considering developments in a number of areas, including materials engineering, bio-inspired materials and self-assembly at the nanoscale.

"This project requires the consortium to invent, develop and transfer to production this breakthrough solar cell. One rarely gets an opportunity such as that," Barnett says. "Engineering is the use of science to develop products for the benefit of mankind, and this is a classic case. Furthermore, it will lead to extraordinary student experiences at all levels."

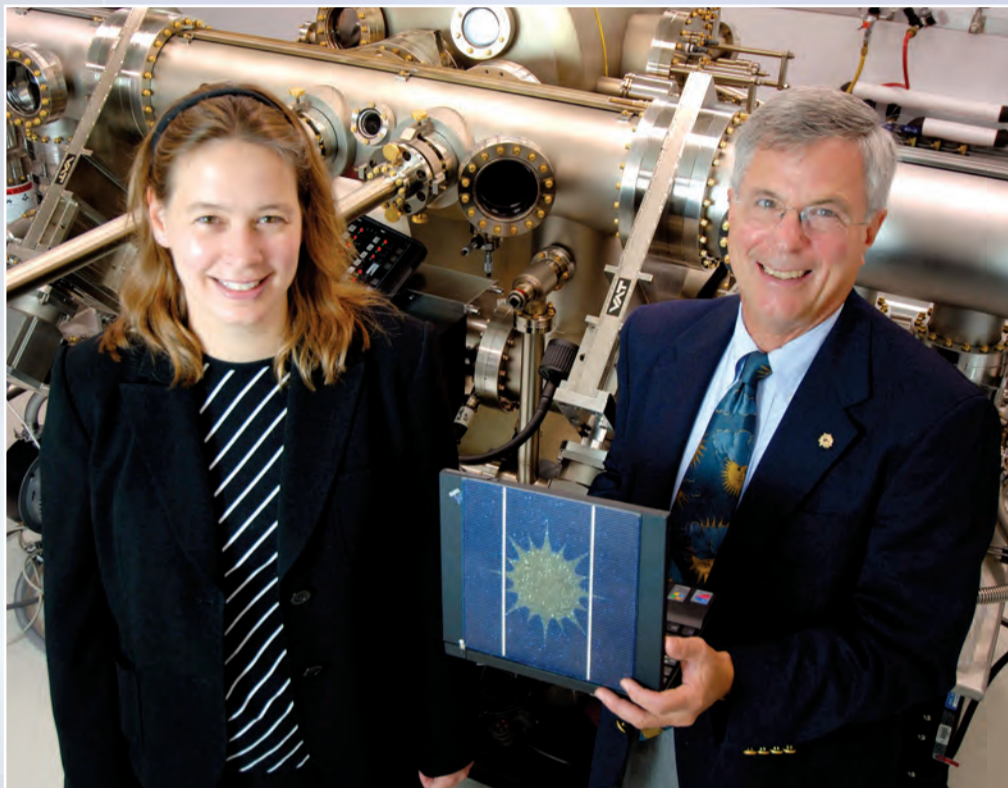
In addition to UD and the corporate members, the consortium includes the National Renewable Energy Laboratory; Purdue, Harvard, Yale and Carnegie Mellon universities; the universities of Rochester, California Santa Barbara and New South Wales; and the Georgia and Massachusetts institutes of technology, all subject to successful negotiation of subcontracts.

UD offers one of the nation's broadest research programs in photovoltaics, and it is developing one of the nation's most complete courses of study for solar power systems. It is home to the Institute of Energy Conversion, a multidisciplinary laboratory devoted to the research and development of thin film photovoltaic solar cells, and the High Efficiency Solar Cell Program in the Department of Electrical and Computer Engineering.

Barnett earned a doctorate in electrical engineering from Carnegie Mellon University and is a fellow of the Institute of Electrical and Electronic Engineers, which awarded him its William R. Cherry Award for outstanding contributions to the advancement of photovoltaic science and technology. He also won UD's Karl W. Böer Solar Energy Medal of Merit in 2001 for "pioneering high-performance, thin-crystalline silicon solar cells, founding and leading a world-class enterprise for the commercialization of solar electric products and outstanding continuing service to the solar electric power community."

Honsberg earned a bachelor's degree in electrical engineering in 1986, a master's degree in 1989 and a doctorate in electrical and computer engineering in 1992, all from UD. She was an associate professor in the Centre for Photovoltaic Engineering at the University of New South Wales from 1993-2000 and an associate professor of electrical and computer engineering at Georgia Institute of Technology before joining the UD faculty in 2004. ♦

—Neil Thomas, AS '76



CARLOS ALEJANDRO

Christiana Honsberg and Allen Barnett stand in front of a machine that makes high performance solar cells. Barnett is holding a laptop with a conventional commercial solar cell. The new project hopes to make devices that will recharge a laptop in an hour.

supports them. It also is expected that the solar cells will have a large number of commercial applications.

"When successfully completed, the Very High Efficiency Solar Cell technology will be a breakthrough in providing portable power to the soldier in the field," Douglas Kirkpatrick, program manager for DARPA, says.

"Solar-generated electricity is a high value energy source," Barnett says. "This award provides another critical step as solar electric power moves into the commercial mainstream."

"The creation of affordable, high-efficiency solar cells is a challenge in that it presents not a single problem but a complex set of interrelated problems," Honsberg says. "We believe that with the support provided by DARPA, and with the large pool of knowledge and creativity within the consortium, we will be able to achieve that goal."

To achieve high efficiency in less than five years at low cost, Barnett and Honsberg have proposed using a

approaches to the integration of the optical, interconnect and solar cell design to provide for affordability and also flexibility in the choice of materials and the integration of new technologies as they are developed.

"By integrating the optical design with the solar cell design, we have entered previously unoccupied design space that leads to a new paradigm about how to make solar cells and how to use solar cells, and about what they can do," Barnett says.

A key part of the project is not just developing high efficiency solar cells but making the transition from the laboratory to production and the marketplace. Barnett says he believes the consortium will be successful because of the participation of corporations already involved in manufacturing in the field and because he and several other team members have experience in bringing high-technology products to market.

Honsberg says the scientific research teams will take an interdisciplinary



Research that counts for horseshoe crabs

Imagine you are 17 years old and have just graduated from high school. You are standing before Delaware's House of Representatives, trying to make your voice heard on an issue about which you are passionate.

Three years ago, Abigail Bradley, currently a senior in the Science and Engineering Scholars Program at UD, found herself in just that position. She was there to deliver a speech to the legislators urging them to declare the horseshoe crab the state's official marine animal.

"It was a good experience but a little bit intimidating," Bradley, who is majoring in biology with a concentration in ecology and organismic biology, says. "Everyone was really nice, though, and the bill ended up getting a unanimous vote."

Her interest in the horseshoe crab and marine ecology began several years earlier, while she was in junior high. She had attended the University's Coast Day, which celebrates research at the College of Marine Studies, and signed up to help UD scientists conduct the annual horseshoe crab survey.

From that point on, she says, she was hooked. She continued to assist with the horseshoe crab count, and as a high school sophomore, she conducted an investigation into the nesting sites of horseshoe crabs for a project that went on to win first place in the Sussex County, Del., Science Fair. She also won the President's Environmental Youth Award and a DuPont Science Challenge Award for her research.

"Since I lived so close to the College of Marine Studies, I got in touch with the college to ask about a device that could measure the size of sand grains on the different horseshoe crab beaches," Bradley says. "The college put me in touch with [then graduate student] Christine Muir, who showed me how to use the equipment. She was incredibly helpful and also met with me several times to go over my project, showed me how to use the University's library system to do literature research and taught me some of the general marine ecology relevant to my project."

When Bradley finished her project, she says, Muir spoke with Douglas Miller, associate professor and Muir's adviser, who offered the high school student a full-time summer job in his lab. She started out by assisting graduate students, but as she learned more about the issues they were studying and the techniques being used, Miller encouraged her to become more independent. He also encouraged her to use the equipment for her own studies, which she did over the



RACHAEL DICKEY

Abigail Bradley (above) collects purple sea urchins from a tide pool during her summer research fellowship in California. Below, she and Douglas Miller measure water temperature and salinity in the Delaware Bay region.

next two years of high school.

At the same time, Bradley says, her interest in and knowledge of horseshoe crabs grew. She learned that the crab has a compound in its blood that is used to test drugs for infectious bacteria and that research conducted on the crab's eyes has resulted in much of what is known today about the function of human eyes. The horseshoe crab also is important to the ecology of Delaware Bay beaches, which host the largest spawning of horseshoe crabs in the world.

After graduating from high school, Bradley initiated the process to establish the horseshoe crab as Delaware's official marine animal by sending an e-mail to Gov. Ruth Ann Minner. To her surprise, she says, she received an enthusiastic reply from the governor herself, suggesting that Bradley contact her local representative.

And, so, in July 2002, Bradley made history as she stood next to Minner as the bill was signed into law. To recognize Bradley's role in this process, Minner and the Delaware Department of Natural Resources and Environmental Control presented her the Delaware Young Environmentalist of the Year Award.

Bradley, who enrolled at the University in August 2002, has been able to continue her involvement with the College of Marine Studies and to take advantage of UD's opportunities for undergraduate research. In addition to working for Miller, she worked for Katharina Billups, assistant professor of oceanography, for several years and for Christopher

Sommerfield, assistant professor of oceanography, for a summer. She says these opportunities gave her a richer experience and understanding of marine studies that she could apply to her own research.

"Abigail is the most dedicated undergraduate I have ever come across," Miller says. "She has a very realistic idea of what marine biology is and what is involved in conducting research."

The summer after her sophomore year, Bradley was accepted into the College of Marine Studies' annual summer intern program, largely sponsored by the National Science Foundation through its Research Experiences for Undergraduates (REU) program. The fellowship allows undergraduates to design and complete an original research project under the guidance of a faculty mentor.

Working with Miller, Bradley monitored the colonization of the Asian shore crab, *Hemigrapsus sanguineus*, in an area where riprap had recently been placed. The Asian shore crab is an invasive species in the Delaware Bay region and is typically found on rocky substrates such as riprap, groins, jetties, piers, mussel beds and oyster reefs in

high-salinity coastal habitats.

Bradley's research was designed to help scientists determine whether artificial hardening of the shoreline, a method used to combat beach erosion, may inadvertently facilitate the spread of invasive species. Her results also will be used in her senior honors thesis, which explores the marine ecology of rocky, intertidal habitats of the Delaware Bay.

"Even though my high school research focused on the horseshoe crab, I began to get interested in other areas of marine ecology, especially that of invasive species, while working in Dr. Miller's lab," Bradley says. "The construction of a new rock jetty at Roosevelt Inlet in the Delaware Bay in spring 2004 seemed like a great opportunity to study the colonization of different species to this new habitat."

"Only soft-bottom habitats, such as sand beach and marsh, occur naturally on the Mid-Atlantic coast. Therefore, when riprap is artificially



BOB BOWDEN

emplaced, native species may not be as competitive as exotic ones that have already adapted to the rocky intertidal environment elsewhere."

Last summer, Bradley completed another REU fellowship at the Bodega Marine Laboratory of the University of California at Davis, with a project focused on the effects of temperature on kelp forest ecology.

"I cannot imagine a more effective way of actualizing my awe of science and nature than the summer research fellowships I participated in in my sophomore and junior years of college," Bradley says. "Even more rewarding is the sense of wonder that I experience when conducting my research." ♦

—Kari K. Gulbrandsen, EG '91M

Putting on the pressure for safer foods

Think of store-bought orange juice that tastes just like fresh-squeezed, lasts longer than fresh and is as safe as, or safer than, pasteurized OJ. This possibility is closer to reality than to science fiction, thanks to a partnership between the U.S. Department of Agriculture (USDA) and the University of Delaware.

Since 2000, USDA molecular biologist David H. Kingsley and Dallas G. Hoover, UD food microbiologist and professor in the animal and food sciences department of the College of Agriculture and Natural Resources, have been working together in the lab. They are evaluating the effectiveness of high-pressure treatment for inactivating food-borne viruses in shellfish and other foods, while preserving the uncooked character and flavor. If their research is successful, Kingsley says, the USDA may support the use of high pressure in commercial applications.

"A number of foods you buy in the grocery store have been prepared using high pressure, including some brands of guacamole, yogurt smoothies and ready-to-eat lunch meats," he says. "High-pressure treatment effectively eliminates food-borne bacteria such as *Listeria* and *Vibrio*—and, as we are showing, food-borne viruses—yet keeps the food raw, thus maintaining its natural qualities that are altered by industry standard processes such as heat."

Hoover and Kingsley are studying ways to use high pressure that will eliminate hepatitis A and Norovirus in shellfish and other foods. Norovirus, the No. 1 virus of food-borne illness in the United States, is common in shellfish. The food-borne virus causes viral gastroenteritis, infecting 20 to 25 million people each year.

"A lot of people really like to eat raw shellfish; in fact, they insist on it," Kingsley says. "Shellfish live in estuaries in which boats are prevalent and into which septic tanks may leak. Shellfish are bio-concentrators, which means they take up everything they see, thus housing various bacteria and viruses. Since you don't cook raw fish, science must find an alternative method to inactivate those bacteria and viruses. We believe that alternative is high-pressure treatment."

In the lab, Kingsley puts viruses into flexible packages and seals them. Then, the package goes into a small pressure chamber the size of a soup can. Pistons start pumping



DANIELLE QUIGLEY

Dallas Hoover (left) and David Kingsley are collaborating to evaluate the effectiveness of high pressure in eliminating food-borne viruses.

water, and high pressure—6,000 times that of atmospheric pressure—is applied to the package.

"That much pressure is the equivalent of three elephants standing on a dime," Kingsley says.

Once the package housing the virus has been treated, Kingsley attempts to infect a cell with the virus. Whether the virus is able to infect the cell determines the effectiveness of the pressure.

Using high pressure to prepare foods is not a new idea. According to Kingsley, the method has been around since the turn of the last century, when a West Virginia researcher sought to pasteurize milk with pressure. However, because the technology at the time wasn't practical, the early attempts failed to advance. That changed when Hoover arrived at the University back in the early '80s.

Hoover says that the head of the food science department at the time, Dan Farkas, predicted that high pressure could inactivate bacteria and pathogens in foods. Hoover,

who was working under Farkas as an assistant professor, had doubts about the hypothesis and was afraid the research might hurt his career, he says. On the contrary, Hoover today is known worldwide for his research into high-pressure treatment of foods.

"At first, I thought it was a crazy idea," he says, "but he was the head of the department, so I showed up every day and worked as a technician in these pressure treatments. We peddled the idea to various industries, eventually achieving credibility. Since then, I have worked on pressure research exclusively."

Kingsley, who has worked for the USDA's Microbial Food Safety Research Unit for five years, is an expert in aquaculture and food-borne viruses. While attending an aquaculture meeting, he says, he heard about the use of high pressure to kill *Vibrio* in foods and was intrigued. At a later meeting, the possibility of using high pressure to kill viruses was discussed, and

Kingsley contacted Hoover.

A short time later, the two formed what Hoover calls a "loose collaboration," a non-funded specific cooperative agreement between the USDA and the University. Hoover shares his mastery of high pressure and the high-pressure unit he acquired in 2003 from Avure Inc., while Kingsley shares his expertise in viruses and aquaculture.

"At this point, we have proven that high pressure is effective in inactivating hepatitis A," Kingsley says. "The tricky part is dealing with Norovirus. Because it cannot be replicated in the lab, we can only test genetically related strands of the virus. We have tested the feline version of the virus and have successfully inactivated it. The next step is to test the true Norovirus in humans."

Kingsley says they have not yet acquired funds to begin a human volunteer research study. "One human volunteer costs \$11,000. You need about 30 people," he says. "That's a lot of money."

In the meantime, Hoover and Kingsley say they will continue their research, defining the parameters of what affects inactivation, including such factors as temperature of a food, salinity, acidity or fat content.

"I think it's just a matter of time before the use of high pressure really snowballs," Kingsley says. "The technology today is such that the process is more cost-effective."

The large commercial version of the high-pressure unit Hoover and Kingsley are using would cost a food manufacturer about \$1 million. But, Kingsley says, in the long run, the machine would cost a food company very little.

"Some food manufacturers estimate the cost to pressure-treat their products at about 5 cents per pound of meat and 7 cents per liter of juice," he says. "This could end up costing the consumer a few more cents. In Japan, where consumers tend to care more about quality than cost, they already have pressure-treated, tastes-like-fresh-squeezed orange juice on store shelves."

Hoover, who has worked with high pressure for more than 20 years, is convinced it is the best way to process food.

"When we go into grocery stores, we expect all foods to be wholesome and safe," he says. "But, safety doesn't sell; taste does. High pressure is superior to the heating method of processing foods because it is both safe and preserves the quality of taste." ♦

—Jaime Cherundolo, AS '03



Sound methods of underwater communication

Concert halls, rock bands and stereo equipment may commonly come to mind when acoustics is mentioned, but for Mohsen Badiey, professor of physical ocean science and engineering (POSE) and director of the POSE Program at the College of Marine Studies, the word has an entirely different meaning.

Badiey is investigating the use of acoustic systems, which involve the transmission of sound waves, to communicate with different underwater systems. Those systems include submarines and autonomous underwater vehicles (AUVs), small, submarine-like vessels that can operate without being tethered to the surface or to a ship.

"AUVs are going to revolutionize the way we sample the ocean," Badiey says. "They are extremely versatile and can go places where ships can't go—for instance, into a hurricane. In addition, they are cost-effective. You can send in an entire fleet of AUVs to take pictures and collect data without having to tie up a whole ship and the manpower needed to man that ship."

Currently, the usefulness of AUVs is limited by the ability, or inability, of scientists to communicate effectively with them. Although R2-D2 and C-3PO, the fictional robots in *Star Wars*, appear to think for themselves, AUVs must respond to commands to complete their tasks at various underwater sites. According to Badiey, the principles behind underwater communication are similar to the way in which cellular phones use electromagnetic waves to allow people to communicate with each other on land.

And, just as cell phone services were unreliable at first, Badiey says, the ability to communicate underwater also must be improved. Electromagnetic waves cannot propagate through water, so sound waves must be used. As a result, scientists at the surface can communicate with underwater systems only by sending data and information through acoustic modems, in the same way that computers communicate with each other with digital modems.

"However, the ocean is a dynamic environment," Badiey says. "Its physical properties, such as temperature, salinity and current direction and speed, change over time and space. These spatial and temporal changes in the ocean will, in turn, cause the transmitted sound intensity to fluctuate.

"As a result, the transmitted sound signals must be encoded and optimized. In other words, the



Researchers working on board the Research Vessel Kilo Moana are (from left) Arthur Sundberg, Aijun Song, Mohsen Badiey and Jing Luo. They are testing underwater communication systems in the Pacific Ocean near Kauai, Hawaii.

properties of the sound must be changed to minimize the effect that the ocean has on it and to make the entire process more efficient."

Badiey is working on a project off the coast of Hawaii to understand how these variations in the ocean environment affect the propagation of sound. The project is supported by the U.S. Navy and involves a number of institutions, including the Applied Physics Laboratory at the University of Washington; the Naval Research Laboratory in Washington, D.C.; the NATO Undersea Research Centre; Science Application International Corp.; Scripps Institution of Oceanography at the University of California San Diego; the University of New Hampshire; and Woods Hole Oceanographic Institution.

This project focuses on the transmission of sound in the shallow, coastal environment. Previously, ocean acoustics focused on finding enemy submarines that were hiding in the deep ocean. However, after the Cold War, the emphasis shifted to finding smaller objects, such as buried mines, in the coastal seabeds and to using sound to study the ocean environment.

"AUVs are not only smaller than submarines, but they also will be operated in waters of various depths depending on the nature of the mission," Badiey says. "As a result, we need to use sound waves that have a frequency that is comparable to the size of the object that is being investigated."

According to Badiey, the principles used in ocean acoustics can be compared to echolocation, which is used by mammals such as bats and dolphins. In echolocation, the animal

explores its environment by producing sounds and then listening for their echoes.

The methods and techniques used in developing underwater communication systems are evolving. "Every time we go out to conduct an experiment at sea, it is like a brand-new mission," Badiey says. "It is very exciting and very intense." For each trip to sea, he says, researchers test a new piece of equipment, which they have designed and built using the knowledge gained in previous work.

This area of ocean science and communication engineering has just begun to capture Badiey's interest. As an undergraduate, he earned degrees in civil and mechanical engineering, where he realized that mechanical systems were prone to problems with vibrations. His quest to resolve this problem led him into the study of sound, which is a type of mechanical vibration. In graduate school, he became interested in the mechanisms dealing with the interaction of water waves that induce dynamic pressure on the shallow water seafloor. Badiey says that the field of ocean acoustics has changed dramatically over the last 20 years and is still changing.

"Mathematically, the vibrations—whether they are caused by mechanical waves such as water waves and acoustics waves or electromagnetic waves—are all very similar," he says. "However, the resulting problems can be different when the waves pass through ground, water or even air."

Closer to home, Badiey has been instrumental in leading a team of marine scientists in equipping the

Fourteen Foot Bank Lighthouse in the Delaware Bay with meteorological and oceanographic sensors. These sensors continually record such data as air and water temperature and the speed and direction of winds and currents as part of the Delaware Bay Observing System. This system will be part of a regional network located along the northeast Mid-Atlantic coast and tied in to a national initiative to monitor the coastal ocean. It provides yet another way to sample the physical parameters of the ocean.

Badiey also notes that the College of Marine Studies plans to establish a Coastal Ocean Dynamics Applications Radar (CODAR) system for the Delaware Bay to look at the surface of the bay and the adjacent coastal ocean in real time. CODAR is a system that can measure ocean surface currents remotely from shore and generate a map of surface currents within about 30 miles of the coast.

At the same time, in a different research project, the bay will be modeled for water waves and to determine how different wind fields generate waves. The information garnered in these projects has applications to issues including fisheries management, oil spill response and storm preparedness, and it can improve management of the Delaware Bay and the adjacent coastal region.

The oceanographic community has started establishing more and more of these types of real-time observing systems, which provide information more efficiently and economically than ever before, Badiey says. "There will always be new sensors and new ways of measuring the temporal and spatial variations of the environment around us," he says. "But, pretty soon, we'll get to a point that we will have more information than we are able to digest."

Badiey says he believes that scientists who can analyze the collected data and use their knowledge to improve lives and prevent disasters are going to be increasingly in demand. "I think the interdisciplinary nature of the POSE program prepares our students with the skills needed to tap into this information technology age," he says.

At the same time, he says, the college provides students with a background in policy issues. "Our students are learning to use technical information to better manage the ecosystem, the coastal waters, the beach erosion," Badiey says. "All these are decisions that need to be made to protect the environment for future generations." ♦

—Kari K. Gulbrandsen, EG '91M

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Jewelry fit for a museum

The silver creations by Cynthia Davis Gale, CHEP '85, are museum pieces—literally.

Her intricate baubles are hand-hammered by Indonesian crafters, using an ancient process called repousse (pronounced rreh poe zay) that is handed down from generation to generation in Bali.

It's not the labor-intensive silversmithing technique that makes Gale's output official museum pieces, though. It's the licensing agreement.

Gale, a self-described museum junkie, started out hawking her hand-finished silver jewelry at the Museum Store Association's trade shows in the early 1990s. Her work caught the attention of officials from the Cleveland Museum of Art, and, by the mid-1990s, one museum had led to another.

Gale, 42, began basing her sleek pieces on each museum's art, working with curators to create products that would have institutional meaning. One is her Seven Families of Faiths bracelet created for the National Cathedral in Washington, D.C. Dangling charms represent the seven major world religions.

The pieces sell well to museumgoers because they distill the essence of each institution and often are packaged with curatorial information on the art that inspired them. A piece sold at the Getty is based on art displayed there. Pieces created for Washington's Kennedy Center are patterned after the theatre's magnificent crystal chandelier.

Gale's company also pays a royalty to the institution for each piece sold at a litany of museums—Manhattan's American Museum of Natural History, the National Gallery of Art, San Francisco's DeYoung Museum, J. Paul Getty Museum, the Los Angeles County Museum of Art, the Georgia O'Keeffe Museum and Boston's Museum of Fine Arts, as well as such cultural institutions as Lincoln Center.

She just signed with Mount Vernon and got a peek at Martha Washington's pearls.

In addition to museum shops, Gale's pieces can be found at high-end retailers such as Neiman-Marcus. Jane Fonda and Oprah Winfrey are among the celebrities who wear jewelry designed by Gale.

Gale says a fashion program

offered at UD was her springboard to the New York fashion industry. "They had a wonderful program with the Fashion Institute of Technology that brought me to New York for the first time," she remembers. "That exposure to New York was invaluable. That's where it all happened for me. Just by providing students with a lot of educational options, they really allow them to consider things they might not have been exposed to otherwise."

She was able to study for a year at the Fashion Institute of Technology in New York and still graduate—cum laude and on time.

Gale, who once ran daily on the UD campus, now runs in Manhattan's Central Park, just a few doors away from the Central Park West home



Prayer bead bracelet created for the National Cathedral and a necklace from the GeoArt collection

she shares with her husband, Glenn, and their children, Ian and Isabelle. "I feel very fortunate," she says. "Sometimes, I'm overwhelmed at how lucky I am."

The family always spends July in the islands of Java and Bali, where Gale finds exotic gems such as cranberry pearls and blue topaz to incorporate into her designs. "I think it's important to go to Indonesia each summer with my



Jewelry designer Cynthia Gale says she tries to provide an accessory priced for every pocketbook.

family," she says. "There are many people who produce in other countries, and they've been there once or maybe they haven't been there at all. For me, it's a lifestyle. I live it. I'm at my factories. I'm with my workers. For me, it's incredibly important that I go there and that my children get to know it. It's very, very special and unique."

Her Cynthia Gale Signature Collection, which includes pieces from \$40 to \$600, incorporates repousse pieces in silver and, occasionally, gold.

Her GeoArt by Cynthia Gale collection, with pieces from \$20 to \$250, is a sophisticated silver grouping that is more popularly priced. One of the best-selling items from the line is the meditation ring that spins when the wearer fidgets with it. It retails for \$25 to \$50.

Her Geotrend collection of brightly colored stretch bracelets

and stretch rings runs from \$3 to about \$18. Gale says she tries to have an accessory for every pocketbook.

"When I see a woman, I'm right away looking at her accessories," Gale says. "A woman's clothing covers the canvas, but it's the accessories that provide the details. That is what makes her unique. We want to do what we can to help a woman to look unique."

One of Gale's most popular pieces recently has been her Families of Faiths bracelet. She says people have called in tears to order it.

The reason, aside from the ecumenical flair of the silver charm bracelet, is that all the profits from its sale are being turned over to tsunami relief organizations. Gale and the National Cathedral, which commissioned the bracelet for its on-site shop, are donating all profits and royalties to organizations working in tsunami-ravaged areas. ♦ —Kathy Canavan



The careers of three University of Delaware graduates are climbing with the creation of Cartel Productions, an independent film company that is intent on bringing the expanding rock climbing culture into the mainstream market.

Fred Bohm, AG '01, Scott Moser, AS '02, and Ed Rhine, AS '02, who met at UD and spent many hours on the climbing wall in the Carpenter Sports Building, formed Cartel Productions in 2003 and soon thereafter released their first documentary film, *Hostile Takeover*.

Bohm is the director of filming and also serves as head of public relations for the company, which was conceived while the three were still UD students. Moser works on Internet development [www.cartelclimbing.com] and doubles as screenwriter, and Rhine serves as editor and director of postproduction.

Hostile Takeover received an enthusiastic reception during showings at the Flatirons Theatre in Boulder, Colo., at the Smith Rock Climbers Carnival in Terrebonne, Ore., and at the second annual Red Rock Rendezvous climbing festival near Las Vegas, Bohm says. The film has been picked up by two international distributors, making it available coast-to-coast and worldwide.

A new film is in the works, as is a DVD magazine and a clothing line.

"Film production is the primary focus of Cartel, and our films strive to tell a story in a way that major climbing production companies miss, that being a stylish post-MTV portrait of the climbing lifestyle that the average climber can relate to and a nonclimber can appreciate," Moser says. "Not wanting to limit our creative potential, we have branched

out with a clothing line and an interactive web site that keeps climbers updated with new upcoming climbing spots to check out."

The three developed a screenplay for the new film and began production in June, with a scheduled release in spring 2006. "Building on the success of our first film, we have improved every aspect of our production process," Bohm says. "The upcoming film has added talented actors, superior camera equipment, professional editing software and an original, nuanced screenplay."

Bohm says climbing lends itself to film because "it is a very aesthetic sport. It allows us, as cinematographers, to show the sport, as well as beauty of areas that most do not see. Climbing is the meat and potatoes of our lives. As all filmmakers do, we draw

inspiration from our own experiences, and so drawing on our lives as climbers occurs naturally."

Bohm says he believes the time is right for Cartel, with its focus on climbing. "Over the past few years, climbing has seen an explosion in popularity," he says. "More and more, people are taking to individual sports as opposed to professional team sports. In our age of immediate personal gratification and independence, we don't want to rely on other people for our recreation. Climbing and other individual sports allow us to accomplish our personal goals where we set and exceed our own limits."

The three friends were all climbing enthusiasts before enrolling at UD, and their interest grew once on campus. They met and spent many hours at the climbing wall and eventually worked there,

crediting Maryann Rapposelli of recreation services with offering a great deal of encouragement and support.

"She was our boss at the climbing wall, but above all she was our friend," Bohm says. "She really cared about what we were doing with climbing and supported us in any way she could."

The trio met other climbers on campus and began to spend weekends and breaks, and even a few weekdays, on the road to prime climbing spots from upstate New York to North Carolina.

"We were out climbing almost every weekend and decided to film what we were doing," Bohm says, which eventually led to the creation of Cartel Productions. "At first we didn't mean for it to become our careers, but as time went on, it just became more natural."

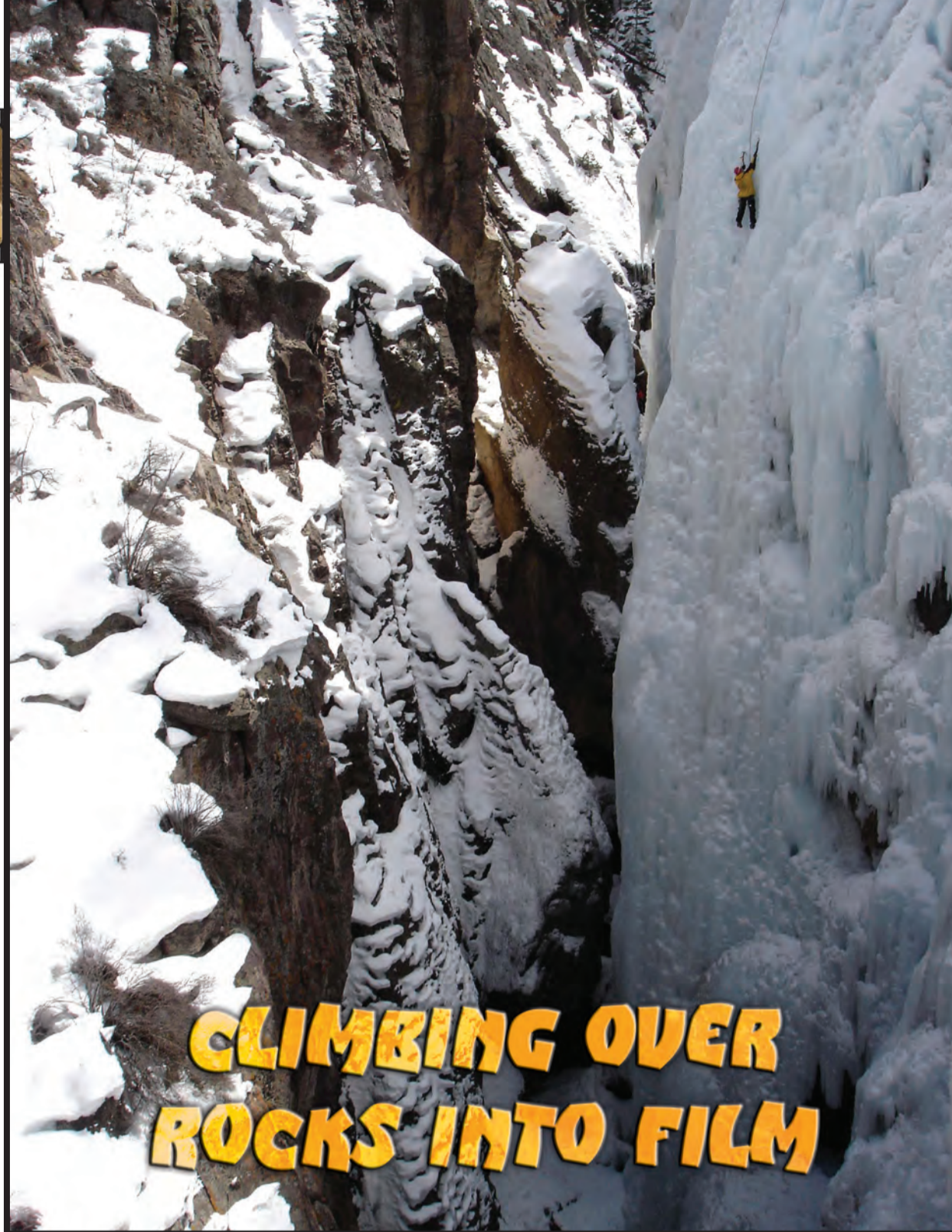
None of the three had majors that provided any

background in film, with Bohm studying natural resource management; Moser, geography and French; and Rhine, geology.

"Needless to say, most of our education on filming came the old-fashioned way, through trial and error," Bohm says. "We watched other climbing films and decided we could do a lot better than that. None of them really got you involved with the climbers and climbing lifestyle. We wanted to tell a story. We felt we had something worthy to say."

Bohm says that, rather than sink money into the company straight off, the three decided to let it progress naturally. They began expanding as publicity and income were generated.

The approach has left them with solid footing and a clear trail as they prepare to scale new and ever larger challenges. ♦ —Neil Thomas, AS '76



PHOTOS COURTESY OF CARTEL PRODUCTIONS

Fred Bohm, Scott Moser and Ed Rhine, who met at the climbing wall in UD's Carpenter Sports Building, have produced a rock climbing documentary, *Hostile Takeover*.



Chuck Creekmur, AS '95, is aware that much has changed on campus since he hosted a daily hip-hop show on the campus radio station WVUD, spinning A Tribe Called Quest.

Today Creekmur, or "Jigsaw" as he is known to his friends and fans, is co-CEO of AllHipHop.com, along with his high school friend, Greg Watkins. He returned to campus during Homecoming 2005 to take part in the second annual journalism panel, which allows journalism alumni to share their stories and accomplishments with current students.

Both Creekmur and Watkins were heavily into music when they met at Glasgow High School in Delaware during the late '80s. Eventually, their passion for hip-hop and drive for success brought them together again after college to form the popular web site.

"I've always been a part of the hip-hop culture," Creekmur says. "Even before UD, music was part of me—it's where I come from. Put that together with my natural ability to write, and I found my calling."

Born and reared in Wilmington, Del., Creekmur entered UD as a journalism major because a high school teacher had encouraged him to pursue writing.

"I knew that I needed an outlet for my creativity, and journalism allowed me to merge my two favorite things as a kid, comics and hip-hop," he says.

While at the University, Creekmur searched for activities to fill his appetite for music. He worked on *The Review*, the student newspaper, as entertainment editor and hosted a hip-hop show on WVUD every day from 3-5 p.m. Despite his contributions to the campus entertainment scene, Creekmur says he became increasingly aware of a lack of media diversity at the University.

He and Steve Julien, CHEP '94, another high school friend, took up the challenge and restarted an alternative African-American newspaper, *The Pamoja*, which is Swahili for "united." They distributed the paper around the University and throughout New Castle County.

Julien would continue to be a key element in Creekmur's professional life when he later became the president of AllHipHop.com.

"My approach to business, and relationships in general, is to work with people I've known for years and years. Greg, Steve and I bring many different things to the company in terms of our skill sets," Creekmur says.

While Creekmur honed his journalism skills in class, he also delved deeper into the music scene. He used his time at WVUD to spotlight new hip-hop artists and started interviewing popular hip-hop acts, such as A Tribe Called Quest and KRS-One, and other acts



Chuck "Jigsaw" Creekmur's passion for music and writing led to the creation of his popular web site AllHipHop.com.

around the area.

After graduation, Creekmur worked for a while at MBNA. He continued to write for independent magazines, freelancing at various publications while still maintaining the dream of owning his own business one day.

Since the center of the music industry is in New York City, Creekmur knew he would have to relocate there if he wanted a real chance to break into the industry. In the meantime, he began his own web site to continue building his writing portfolio.

"It's difficult to write for other magazines when I know what I want to communicate to an audience," Creekmur says. "I needed somewhere to showcase my own talent, my own way."

Once again, Creekmur found his path crossing that of Watkins. Since both had web sites dedicated to hip-hop, they decided in 1998 to merge the two. AllHipHop.com became official in 2000.

"I was surprised by the initial impact of the web site. I never

conceived it would be something I could do full-time. I figured I would use it as a stepping stone to write for a major publication," Creekmur says.

AllHipHop.com was welcomed by the hip-hop community. Creekmur and Watkins used their site as a creative outlet for themselves and for hip-hop fans, who could express their opinions in an open forum.

"We've established something that's made with a creative human touch," Creekmur writes in an editorial on the site. "That's always been our viewpoint; we write for the people, not the big companies or artists."

As the popularity of AllHipHop.com rose, Creekmur was writing more reviews, editorials and feature articles. That's when BET.com approached him with an offer to write for that site, where he has been a contributing writer for the past three and a half years.

"Every time I interview Russell Simmons, Jay-Z, P. Diddy—someone of that caliber—I always learn something," he says. "Those interviews are very educational

because these men are the pioneers in the business of hip-hop. They have proved to be the most successful because they've seized control of their destiny and path in life. I see that drive in those people, and I take that as a learning experience."

Because the pressure is on to maintain AllHipHop.com's success, Creekmur has become more involved in the business aspect of running the company. Four UD graduates are now on staff at AllHipHop.com, working in publicity, marketing and editorial.

"I'm beginning to look at the web site from a business perspective. We have to work harder now and rush out the breaking news to stay ahead of the game," Creekmur says. "I'm beginning to learn how to think business, think costs. It's hard for me, since I'm a creative person, but my partner [Watkins] has kept me focused."

Creekmur stays active in the hip-hop community, refusing to fall behind the scenes now that success has found him. He served as a panelist for the National Hip-Hop Convention in 2004, where he spoke on a number of issues, ranging from money matters to stereotypical images. Creekmur and Watkins also hosted the second Hip-Hop Summit in 2001, along with Russell Simmons and the Rev. Al Sharpton.

As hip-hop's popularity continues to expand, Creekmur is predicting a return to the era of socially relevant music. He says he believes hip-hop will become more relevant to the general population, as the "gangsta rap" genre begins to run its course.

"There are new rappers today with different perspectives on the music, such as Kanye West and Common, who are becoming more commercially relevant. We will continue to see hip-hop become more business savvy and independent," Creekmur says.

The pioneers of rap, such as Ice-T and Dr. Dre, are now adults, leaving the door open for new hip-hop artists to take the industry in a different direction, he says.

"Rap is still a very young culture, and you can't expect it to remain the same," Creekmur says. "It will grow as the people inside of the culture grow."

Creekmur also is a regular contributor to *VIBE*, *The Source*, *Complex* and *SCRATCH*. He has been featured on National Public Radio, *Celebrity Justice*, Bill O'Reilly's *The O'Reilly Factor* and on New York's Hot 97 FM.

"This thing reaches way beyond me," he says. "It's beyond AllHipHop.com. It's unstoppable. The future is bright for us. We're just getting started. There are many opportunities open to us right now—to go off line into print, TV, DVDs and albums. The possibilities are limitless." ♦

—Kim Sharrah, AS '06

Dan Slipetsky, '92CHEP/PhD, has been a teacher all his life, but to believers in the magic of Christmas, he's Santa Claus.

It's easy to see why. This 260-pound, 5-foot-10-inch, open-faced, twinkling-eyed gentleman with thick white hair and snow-white beard and mustache is a dead ringer for the legendary bearer of yuletide gifts.

That resemblance and his retirement from teaching after 31 years became the impetus for Santa Baby, a seasonal business in which Slipetsky, aka Kris Kringle, is the only product.

His advertising literature reads, "I am available for photo shoots, commercials, modeling, conventions, presentations, parties and motivational talks."

Slipetsky knows something about motivating people, because he says that's what he did for most of his adult life as a Delaware high school marketing teacher, along with part-time teaching positions at the state departments of Elections and Labor, Goldey-Beacom

Santa on call



Santa Baby is a seasonal business with Dan Slipetsky its only product.

College, Delaware Technical and Community College, the Annenberg

Foundation and Delaware State University.

But, he says his most rewarding teaching experience came in the last seven years of his career when he was part of the James Groves Adult High School Program at the Delaware Correctional Center in Smyrna. He taught inmates from 18 to 60 years old. "That was the best teaching job I ever had. The students really wanted to learn. They were prepared, had good attitudes, allowed me to teach and worked very hard. They'd even get upset if I wasn't there one day."

In 2004, Slipetsky retired from teaching.

"For most of my life, I was short-haired and clean shaven, then I decided to grow a beard. I passed a mirror one day and said, 'Oh my God, I look just like Santa.' It was like it was someone else in the mirror." In 1997, he contacted a photo studio that specialized in Santa pictures, and they hired him. The next day he was at a mall sitting in a Santa chair asking people what they wanted for Christmas.

He's been playing Santa ever since.

In fact, last December, he defended the existence of his alter ego in a re-enactment of the court scene from the movie *Miracle on 34th Street* before the Delaware Supreme Court with Delaware judges, lawyers and business people in supporting roles.

Slipetsky says you'd be amazed at who wants their pictures taken with Santa.

"Once I had 15 sailors squeeze in around me. Another time, a girls' high school swim team came to have a picture taken with Santa. Seven or eight girls surrounded me and began taking off their clothes; well, I panicked until I realized they had their swimsuits on underneath. When I did pet pictures for a local veterinarian, one person brought three cats. One of them didn't believe in Santa because he scratched and bit and gave me a really hard time before we got the picture."

But, the photo that Slipetsky remembers "every year" was the one of him with Emily. The 8-year-old girl had cancer, and the chemotherapy treatments had caused her face to swell. "She didn't think Santa would be able to recognize her. So, I spent some time with her. I told her 'When you have pain, just think of me and Rudolph, 'cause we'll be thinking of you.'" The next year, he received a note saying that Emily wouldn't be visiting him again, but that the time he spent with her the year before had made her very happy.

Slipetsky says he enjoys running an independent Santa service [www.santababy.org] because he can book a variety of venues rather than be tied down to a mall for 10 hours a day. And, whenever he needs a little encouragement from his peers, he attends meetings of the Amalgamated Order of Real Bearded Santas, an international organization currently listing almost 600 "real bearded" gentlemen who are dedicated to the joy of being Santa.

When he's at home with family and friends, Slipetsky works with stained glass, gardens, reads, travels and does tai chi. His wife, Shirley Ann Lockhart-Slipetsky, is the business manager for the Veterinarian Specialty Center of Delaware. His son, Daniel Slipetsky Jr., AS '96, is a jazz pianist and tuba player who was a member of UD's Marching Band, and his daughter, Apryl Marie Neuhauser, is a food service specialist. ♦

—Barbara Garrison

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Music man celebrates 55 years in Alumni Band

Leon Tabb is truly a one-man band. He plays the trumpet, baritone horn, baritone sax, Sousaphone, guitar and piano, and his instrument of choice is the bassoon.

"I've been a school music teacher ever since I graduated from UD in 1950 until I retired after 42 years, so I had to learn how to play several instruments so I could teach them," Tabb says.

A music and education major at Delaware, Tabb, with the exception of one year, has returned each Homecoming to play in UD's Alumni Band. Every fall, he gets out his trumpet to start practicing for the big event and contacts Heidi Sarver, band director and associate professor of music, to find out what is on the program. As the years have progressed, he is the sole remaining marcher of his era.

"I love Leon!" Sarver says. "Alumni Band is about Leon Tabb—someone who keeps coming back year after year, doesn't mind changes, doesn't care about politics, doesn't care if it rains (which it tends to do at Homecoming for some reason). Leon just loves to play his trumpet, and that's what it's all about!"

This year was special for Tabb as his daughter, Wendy Wands, and son, Bruce, flew in from the state of Washington, and his other son, Keith (Kip), came up from North Carolina for Homecoming and a family reunion. A graduate of Hofstra University, Bruce and his father were cheering for opposing teams at the Homecoming football game.

Having served in the Navy in the Aleutian Islands in World War II, Tabb came to UD about the same

time as the late J. Robert King, a professor of music who was the founding director of the Marching Band and whose teaching career at UD spanned 40 years.

"Dr. King and I were 'freshmen' together, both starting out at UD," Tabb says. "In those days, there were six music majors, and about 35 students in the Marching Band. The band had one majorette, Roberta Carothers [Martin], and we followed her everywhere. We played the fight song and the alma mater, and our only formation was forming a UD on the field."

Today, according to Sarver, there are 350 band members, four drum majors who conduct the band, 42 color guard members who carry flags, rifles and sabers and one to five "Golden Girls," or majorettes. As far as the band performance, Sarver says, it is art in motion. The field is considered a stage. The speed at which the performers move, the colors of the flags and the presentation are visual representations of the music.

Dr. King also was responsible for Tabb becoming a bassoonist. "One day, the two of us came across a big, dusty old box and opened it up, and there was a bassoon. We had to buy some reeds for it from Lou Knowles, who had a music shop in Wilmington. Lou said he needed a bassoonist for a band he played in and that he would pay for bassoon lessons for me," Tabb says.



DUANE PERRY

Leon Tabb returns to the Delaware Stadium field each year at Homecoming to play his trumpet with the Alumni Band.

Another important event at UD for Tabb was meeting his wife, Muriel Rogasky, UD '46, on a blind date. A retired teacher, Muriel Tabb died in 2001.

Although Tabb has retired after teaching in West Virginia, Smyrna, Del., and Pennsville, N. J., where he now lives, he is still making music with the Brandywine Pops and with a group from the Adas Kodesch Synagogue in Wilmington, which plays Jewish and Hebrew music.

How else does an 81-year-old

spend his time when not making music? Tabb says he is involved in some volunteer activities—like spending time at the Quaker Wilderness Center in upper New York state, clearing trails and helping to maintain the site; assisting in building schools with a Catholic organization in Belize in Central America; and, through Elder Hostel, volunteering with Hereford International in Arkansas, learning to milk goats and perform other chores as needed. ♦ —Sue Moncure

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Hand therapist employs soft touch in new field

After graduating from Temple University with a degree in occupational therapy, Joanne Kassimir set off to help people who had been injured or suffered ailments that limited their mobility and ability to live independently. During her first three years on the job at Nassau County Medical Center in New York, Kassimir found herself at the cutting edge of a new field—hand therapy.

It was 1979, and advances in microsurgery were enabling orthopedic and plastic surgeons to perform miracles in repairing injured hands, Kassimir says, but a different, more delicate form of occupational therapy was needed to maximize the function of these newly mended extremities. This was new territory in the world of occupational therapy, and Kassimir was leading the way in developing this specialty.

“Everything was trial and error,” Kassimir says. “There were no

“I tell people I’m the grandmother of hand therapy on Long Island.”
 —Joanne Kassimir

textbooks of diagnosis and treatment for hand therapy, which are available today. The doctors would suggest things and I would suggest things, and then we’d try them to see if they worked. We kept trying and we kept learning. Gradually, therapists and surgeons from across the country were getting together to share information. It was quite exciting to be there at the beginning.”

Kassimir was a charter member of the American Society of Hand Therapists and was among the first to become a certified hand therapist (CHT). She left her work at the hospital to offer hand therapy practices in a number of doctors’ offices, and



CLARK JONES

Occupational therapist Joanne Kassimir helped devise the delicate therapy needed to restore flexibility to a newly mended hand.

eventually she opened her own hand rehabilitation practice in 1986. “I tell people I’m the grandmother of hand therapy on Long Island,” she says.

Patients came to her, because surgeons recognized the value of a therapist who specializes in the hand. “Any therapist out there can take on a hand patient as a case, but it doesn’t mean they are doing hand therapy,” Kassimir says. “The more involved cases really need to see a hand specialist. They need someone with that special knowledge about how the upper extremity works, and the gentle touch that doesn’t damage the small structures of the hand.”

While establishing her practice, Kassimir also spent a great deal of time lobbying for appropriate coverage of hand therapy and the broader field of occupational therapy, which was then not covered by insurance. She and colleagues from around New York went to Albany and to Washington, D.C., to educate insurance companies and Medicare about their specialty. They ultimately succeeded in earning recognition and appropriate coverage

for their work. “We were running our businesses on a daily basis and not thinking about it too much. Then the HMO world hit in the mid-’90s, and we had no power again,” she recalls.

Once again inspired to get active in the legislative arena, Kassimir joined other private practitioners to form an organization called CHOT (Certified Hand Occupational Therapists). Incorporated as a group, they met with insurance companies and negotiated fees.

“We were faced with situations in which we used to be paid \$100, and now we were receiving only \$20. The HMOs didn’t know who we were or what we did. They didn’t see how much time we were spending with patients, what we were doing and how we were being compensated,” Kassimir says. “It’s a fight we’re still fighting. Some HMOs have lowered the reimbursement so severely that we can’t afford to treat those patients.”

Frustrated by the HMO approach, Kassimir sold her practice to a big corporation in the mid-’90s, working for that company for three years

before starting up her own practice again. “They were scheduling me to treat six patients an hour. I didn’t even know my own name by the end of the day, let alone the patients I was treating,” she says.

At Kassimir Hand Therapy in Huntington Station, N.Y., Kassimir is back to her proven approach, giving patients the one-on-one care they need. She says she continues to see patients who ultimately required more surgery because their insurance didn’t allow them to get the therapy they needed or receive it in a timely fashion. Although she gets paid for only half of a visit, she insists that patients spend an hour in her office. They warm up the hand for 15 minutes, then get a half-hour of one-on-one therapy and then do hand exercises for the remaining time.

People visit Kassimir after tendon and nerve laceration repair, burn injuries, broken bones, tennis elbow, carpal tunnel syndrome, amputations and work injuries. Many cases are the result of a traumatic accident, while others result from arthritis or repetitive strain. Most patients are “everyday people like you and me,” she says, while others are musicians, concert pianists and professional athletes. Winter brings those who have fallen on ice or tangled with their snow blowers, while summer brings lawn mower and fire cracker injuries. And then, she says, there are the people who use a knife to separate frozen bagels or hamburgers and cut into their palms.

“Things happen,” Kassimir says. “They go into surgery and then to us. I’m grateful that I have patients who have followed me from office to office. They could go to someone a block away, but they drive a good distance to see me. They realize what I do and how it is different. I want to feel good about what I’m doing. I want a good result for my patient. This way everybody wins.” ♦

—Sharon Huss Roat, AS ’87

Joanne Kassimir lives in Bellmore, N.Y., with her husband, Dr. Andrew Goldberg, her 15-year-old daughter, Valerie Shapiro, and 18-year-old daughter, Meredith Goldberg. Her daughter, Jaclyn Shapiro, is a UD sophomore majoring in psychology with a minor in Spanish and philosophy. Jaclyn’s father, Michael Shapiro, is a physics teacher at Sewanaka Central High School in New Hyde Park, N.Y.

Building a reputation on odd lots

At the age of 58, Paul Robbins concedes that he's part of a dying business, but he's not quite ready to throw in the towel on his 25-year career as a fabric broker.

Up until about five years ago, Robbins says he would've been thrilled if his son had decided to join him in the business; however, in recent years, he has seen dramatic changes that have nearly eliminated the domestic fabric trade. An estimated 80 percent of the U.S. fabric and clothing manufacturing business has moved to China, Pakistan, India and other overseas locations, because U.S. manufacturers can no longer compete with companies that pay their workers as little as \$50 per month in wages. Clothing can be purchased so inexpensively at megastores like Wal-Mart, Target and Kmart, there is no longer an economic incentive for people to sew their own garments, he says. The days when most



CLARK JONES

Fabric broker Paul Robbins finds buyers for excess or flawed fabrics and arranges custom orders for special customers.

(the stiff, wasted lengths of fabric that were used over and over again to test the dyes and get the colors to the right shade before printing). This material often goes to developing countries where "somebody will use it for

the fabric will be milled to their specifications. One such case is a fabric used for costumes that Robbins sells to one of the top fabric chains. "The colors coordinate with what they are already buying much cheaper from overseas, but we are able to give them two-week delivery of whatever color they need in whatever quantity they want. If it's coming from China, they have to buy a full container load and it takes five to six weeks for delivery," he says. "Sometimes, it is cheaper to pay a little more money to get just what you want when you want it."

And, that's why Robbins thinks the domestic fabric business will never totally die. There's also the military, which purchases all of its fabric and does all of its manufacturing within U.S. borders. "That's a lot of camouflage," Robbins says.

If he were just starting out in the business, Robbins says he'd probably

get out or develop more international connections. However, with just four to six years left before he retires, he plans to ride out his career serving those he's worked with for so many years. And, though he jokes that his motto is "price, not pride," Robbins clearly takes pride in the business relationships he has built in an increasingly difficult industry.

"Over time, you keep looking for and meeting people. You take the hardest thing that a mill has to sell and you find somebody who can use it. You move the items that no one else will take. That's how I built my business," Robbins says. "It's really about the relationships. If a person likes you, you do business." ♦

—Sharon Huss Roat, AS '87

Paul Robbins lives in Irvington, N.Y., with his wife, Barbara Lowenthal. Their son, Jason, is a UD sophomore majoring in accounting.

"There's one thing about being an entrepreneur... you always have to reinvent yourself." —Paul Robbins

department stores carried fabric for home sewing are long since gone.

"There's one thing about being an entrepreneur... you always have to reinvent yourself," Robbins says. While other fabric brokers have left the industry completely or shifted their focus to foreign sources, he has carved out a niche market that may best be described as "odd lots, seconds and you-name-it-we'll-sell-it."

As a broker, Robbins works much like a real estate agent. He arranges a sale between an owner and a buyer and earns a commission. The owners—or sources of the fabric—include fabric mills, home furnishing and clothing manufacturers and fabric "jobbers" who purchase and take title to fabric and then sell it through brokers or directly to customers. His buyers include top fabric chain stores such as Hancock Fabrics and Jo Ann Stores, as well as a few remaining regional stores that sell fabric, and customers in less affluent countries like Nigeria who buy low-end merchandise by the pound.

From fabric mills, Robbins obtains flawed fabric like seconds and thirds, as well as fabric known as "leaders"

something," Robbins says. "I sell under one-yard pieces to my customer in Nigeria, where they use it to wrap fish, and one to nine yard pieces of flock velvet prints that they piece together to upholster couches. They will buy a 45,000-pound container load of all different fabrics."

From manufacturers, Robbins gets excess or end-of-season fabric used for first-quality merchandise, short pieces from the cutting room floor (which can actually be 10-15 yards long because the cutting tables run the entire length of a warehouse) and off-shade fabrics. "Manufacturers will put a lot of yardage down on the cutting table and cut multiple garments at once, so they check very closely to make sure it is all the same shade. They can't take a chance that the sleeve might be a different color than the body of a suit jacket," he says.

With Robbins' help, the unused fabric from manufacturers may find its way into a retail fabric store, along with wool or other fabrics he sells to stores through a jobber. He also arranges custom orders of special fabrics, where his customers can choose whatever colors they want and



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Homecoming 2006, set for Oct. 13-15

Homecoming 2006 will cover the campus with class reunions and receptions, alumni honors and citations and tailgating football fans at Delaware Stadium.

Initial planning has begun for special reunion events for the Classes of 1956, 1961, 1981, 1996 and 2001.

Additional details will be posted as they become available on the Homecoming web site [www.udel.edu/homecoming]. For questions or further Homecoming information, please contact the Office of Alumni and University Relations at (302) 831-2341 or send an e-mail to [AlumNet@udel.edu].

Save The Date!



Six alumni honored with Presidential Citations

Six University of Delaware alumni received the Presidential Citation for Outstanding Achievement during a ceremony that marked the beginning of Homecoming Weekend on Friday, Oct. 7, in Bayard Sharp Hall.

UD President David P. Roselle and Robert Davis, vice president for development and alumni relations, presented the awards to the UD graduates of the last 20 years who “exhibit great promise in their professional and public service activities.”

Recipients, representing four of the University’s colleges and six different majors, are Arup K. Chakraborty EG ’88PhD, Robert T. Haslam Professor of Chemical Engineering, professor of chemistry and professor of biological engineering at the Massachusetts Institute of Technology (MIT); Scott E. Fendorf AG ’92PhD, associate professor of soil and environmental chemistry at Stanford University; Angela Tweedy Gladwell AS ’98M, environmental and historical preservation team administrator for the Federal Emergency Management Agency (FEMA); Paul J. Kane AS ’92, senior writer covering the U.S. Senate for *Roll Call*, the Capitol Hill newspaper; Robert P. Meagley AS ’96PhD, senior staff scientist and researcher in residence at Intel Corp.; and Andrea L. Stith AS ’95, program officer at the Howard Hughes Medical Institute.

gratitude for teaching me about our country and instilling in me the desire to strive for excellence.”

Scott E. Fendorf is recognized as a leading soil geochemist. He recently received the M.L. and Chrystie M. Jackson Soil Science Award from the Soil Science Society of America, a prestigious award given to a scientist who has made seminal contributions in soil chemistry and mineralogy. He has served as an adviser to 17 graduate students



Scott Fendorf

and nine postdoctoral fellows and, in his previous position, received an excellence-in-teaching award from the University of Idaho. Fendorf has published more than 50 refereed papers in journals of soil science, geochemistry and environmental science and technology; has published 12 book chapters; and has presented 52 invited papers and lectures worldwide. He earned his doctoral degree in soil and environmental chemistry from UD, where he received the University’s Theodore Wolf Dissertation Prize in the Physical and Life Sciences, as well as the Soil Science Society of America’s award for outstanding dissertation in soil science.

“Thirteen years since leaving, I look back with amazement at my graduate experience at the University of Delaware,” Fendorf said. “Arriving from the West Coast, I had little idea of what to expect and was struck by the beauty of the Thomas Jefferson architecture, the rolling hills of the Piedmont and the spectacular fall colors. The tremendous instruction, student camaraderie and institutional resources left a lasting impression.”

Call for nominations

The Alumni Association is seeking nominations for its Board of Directors and 2006 Alumni Wall of Fame recipients.

New Board members would begin their three-year term on July 1, 2006. Visit [www.udel.edu/alumni/alum/board.html] for more information and a nomination form.

The Alumni Wall of Fame recognizes outstanding professional and public service achievements by UD graduates. Visit [www.udel.edu/alumni/awards/wof.html] for more information and a nomination form.

Arup K. Chakraborty’s research recently earned him election to the prestigious National Academy of Engineering, one of the highest professional distinctions in engineering. The academy recognized him for his accomplishments in applying theoretical chemistry to practical problems in immune system recognition, polymer interfaces,



Arup Chakraborty

sensor technology and catalysis. He has coauthored more than 90 publications and delivered more than 100 invited lectures. Chakraborty earned his doctoral degree in chemical engineering from UD in 1989.

“I registered as a student at the University of Delaware two days after coming to this country,” Chakraborty said. “The University not only taught me about science and engineering, but also about America and the principles that make this nation great. Today, as a proud American, I look back on the four years at Delaware with fondness and



Angela Tweedy Gladwell

Angela Tweedy Gladwell works to protect historic structures and regions from natural and humanmade disasters. The National Historic Preservation Act requires FEMA to integrate historic preservation into its planning for disasters. Gladwell joined the Environmental and Historical Preservation

continued on next page



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Alumni Club Coordinators

CALIFORNIA

Bay Area Alumni Club

Janine Corcoran
1996 Physical Education
(408) 375-6877
[jac0114@yahoo.com]

Los Angeles Alumni Club

Suzanne McCaddin
1998 English Education
(310) 379-0082
[suzys@adelphia.net]

COLORADO

Denver Alumni Club

Joanne Massa Nawrocki
1977 Business Administration
Thornton, Colo.
(303) 252-8967 Home
(303) 673-5257 Work
[Nawrojn@comcast.net]

DELAWARE

New Castle County Alumni Club

Craig Murray
1993 Mechanical Engineering
Wilmington, Del.
(302) 761-9217 Home
(215) 399-4284 Work
[cmurray1971@yahoo.com]

FLORIDA

Northern Florida Alumni Club

Ed Williamson
1987 Business Administration
Jacksonville, Fla.
(904) 221-8277
[regents@ix.netcom.com]

Southern Florida Alumni Club

Cyndy Houck
1977 Business Administration
Ft. Lauderdale, Fla.
(954) 564-5025
[chouck@pclient.ml.com]

KENTUCKY

Kentucky Alumni Club

Marc deBloois
1989 Mechanical Engineering
Sandra de Bloois
1990 Theatre
Lexington, Ky.
[debloois4@peoplepc.com]

MARYLAND

Baltimore Alumni Club

Amanda Taylor
1998 Business Administration
Baltimore, Md.
(410) 908-0317
[udbaltalumni@yahoo.com]

MASSACHUSETTS

Boston Alumni Club

Danielle Malfitana
2001 Elementary Teacher Education
(617) 422-5497
[dmalfita@hyatt.com]

NEW JERSEY

Northern New Jersey Alumni Club

Brad Bofford
1993 International Relations
Hoboken, N.J.
(973) 812-6950
[BHBofford@FinancialPrinciples.com]

continued on
next page

Presidential Citation recipients show great promise

continued from previous page

Team in 1999 and was promoted to team administrator in 2004. With FEMA's integration into the Department of Homeland Security, her team also faces challenges in protecting national monuments from the possibility of terrorist attack. Gladwell earned her master's degree in urban affairs and public policy from UD, while working as a graduate assistant in the Center for Historic Architecture and Design. She lives in Manassas, Va., with her husband, Jerry.

"When I first came to Delaware to study historic preservation, I had no idea that the faculty, courses and experiences would so dramatically shape my future career," Gladwell said. "UD faculty, most notably David Ames, helped me blend my two interests of historic preservation and emergency management through a joint assistantship with the Center for Historic Architecture and Design and the Disaster Research Center. This experience focused my career and, through it I developed many relationships that continue to be extremely important in my personal and professional life."

Paul J. Kane recently received the Everett McKinley Dirksen Award for Distinguished Coverage of Congress, one of the most respected awards in American journalism, at the National Press Foundation's annual black-tie dinner. His winning entry was a package of stories he wrote about the fund-raising activities of the Laura Bush Foundation for America's Libraries, one of the largest charities linked to a political figure. Kane joined the *Roll Call* staff in 2000. His reporting focuses on party leadership, fund-raising, ethics and legal issues. Kane earned his bachelor's degree in political science and completed a concentration in journalism at UD, where he was a managing editor and columnist for *The Review*.

"As the youngest of nine kids from a tight-knit Irish Catholic family, I came to the University sheltered from the world beyond my neighborhood," Kane said. "The University of Delaware became my passport into the rest of world.... Whether it's chasing after Sen. Joe Biden, AS '65, in the halls of the Senate or poring through campaign finance reports in pursuit of the real motives in Congress, those four years at UD remain the defining experiences that opened my eyes to a career and a life I never knew existed."

Robert P. Meagley is building and managing a new research laboratory for advanced lithography materials at Intel Corp. The lab is supporting the development of technology that will be used to make computers in 2009 and beyond. Meagley joined Intel where he worked with



Robert P. Meagley

lithography and was named a group manager. His group's research led to the Pentium 3 and Pentium 4 processors and related inventions. In 2004, Meagley was recognized as one of Intel's top 12 inventors of the year. He earned his doctoral degree in organic chemistry at UD, where he studied organic reactivity for the design of new

materials in electronic applications.

"The mentorship and education I received at the University of Delaware launched my career as a scientist, engineer and manager," Meagley said. "Through the leadership opportunities extended to me within the graduate program in the Department of Chemistry and Biochemistry, I was able to hone skills that enabled me to mentor effectively, confidently lead teams and coordinate diverse projects."

Andrea L. Stith

previously was employed as a science policy analyst in the office of public affairs for the Federation of American Societies for Experimental Biology. In that position, she developed programs to advance biomedical research by providing a voice for individual investigators in biological and biomedical sciences when federal laws and regulations are being developed and when government programs are being funded. She has pursued an interest in understanding how science-funding priorities are established on a national level by becoming a fellow of the American Association for the Advancement of Science, while working at the National Science Foundation. Stith earned her bachelor's degree in physics from UD. As an undergraduate, she participated in the Honors Program, assisted in research and was a member of the club crew team. She earned her doctoral degree from the University of Virginia. She lives in Arlington, Va.

"I had four incredible years as an undergraduate at the University of Delaware," Stith said. "I credit this experience for providing me with a solid foundation of knowledge and confidence. UD also provided me with a comprehensive education that satisfied my intellectual needs and curiosities. By encouraging my participation in various academic, athletic and other extracurricular programs and activities, UD encouraged my strong sense of community. I am truly grateful!"

—Martin Mbugua



Andrea L. Stith

Homecoming spirit shines despite weather

Hheavy rain and mud didn't dampen Fightin' Blue Hen spirit Oct. 8, as approximately 600 UD alumni visited Alumni Row in the Delaware Field House to catch up with old friends, share memories and rally support for the noon football game against Hofstra.

According to Lauren Simione, assistant director of alumni relations, the ranks of UD graduates visiting over the weekend nearly reached the projected 700-900, and activities geared for youngsters meant that many alumni came with families in tow.

"The field house was very busy on Saturday, because it was a warm, dry place where people could gather and enjoy themselves," Simione said.

Refreshments, live music by the Royal Palm Steel Band and the presence of several affinity groups—clusters of alumni formerly involved with spirit activities at UD—also lent a lively mood to the venue.

"This was the first year the alumni relations office invited members of specific affinity groups to Homecoming," Simione said, "and having so many former ag ambassadors, spirit ambassadors, cheerleaders, band members and mascots in attendance added a nice element to Homecoming."

Simione said that members of the UD Alumni Marching Band also made a good turnout and that members of the classes of 1960, 1980, 1995 and 2000 provided a good mix of UD grads.

Other well-attended alumni events included a Saturday barbecue, hosted by UD's Black Alumni Organization at the Center for Black Culture, and the fourth annual Art Loop, which treated



DUANE PERRY

Homecoming guests to a Saturday evening tour of exhibits in Old College, Recitation Hall, Mechanical Hall and the Studio Arts Building.

The Mentors' Circle reception for the Class of 1955 on Friday evening and formal dinner Saturday evening with President and Mrs. Roselle also had good attendance, Simione said, and guests had such a grand time catching up with each other that taking class pictures proved difficult—a sure sign of a successful reunion.

"We had a pretty good turnout at Reunion Row and Spirit Row, but I think the weather had some impact on overall turnout, given the fact that many of the guests were in their 60s and 70s," Simione said.

"Members of the Class of 1955, which had about 300 graduates, all seemed to know each other and have kept in close touch."

Already in the initial stages of planning Homecoming 2006, alumni office personnel are thinking of creating Homecoming niches for former honors students and resident assistants, and other interest groups are being researched. ✨

—Becca Hutchinson

Check out upcoming Alumni Club events at [www.udel.edu/alumni].

continued from previous page

Central New Jersey Alumni Club

Eric Sigman
1999 History
(732) 266-0134
[Bluehens17@aol.com]

Southern New Jersey Alumni Club

Jeff Shirk
1990 Business Administration
Ocean City, N.J.
(609) 398-1755
[jshirk_oceancity@hotmail.com]

NEW YORK

New York City Alumni Club

Erik Sulzbach
1996 History
New York, N.Y.
(917) 400-6885
[ejsulz@aol.com]

NORTH CAROLINA

Triangle Area Alumni Club

Elizabeth DeFeo
1997 Chemical Engineering
(919) 544-1906
[edefeo2@nc.rr.com]

PENNSYLVANIA

Pittsburgh Alumni Club

Lee Erica Moses
2002 Marketing
Pittsburgh, Pa.
(412) 612-8529
[leebert00@aol.com]

TEXAS

Austin Alumni Club

Lethe Crum Burns
1996 Communication
Austin, Texas
(512) 708-6320
[lethe@austin.rr.com]

Houston Alumni Club

Sandra Dunphy
1976 Engineering
Kingwood, Texas
(281) 360-4740 Home
(281) 610-4750 Cell Phone
[sdunphy@kingwoodcable.com]

WASHINGTON, D.C.

DC Alumni Club

Cara Spiro
2002 Marketing
Washington, D.C.
[UDDCAumni@yahoo.com]

We are currently looking for UD Alumni Club Coordinators for the following areas: Philadelphia, Phoenix; San Diego; Kent/Sussex County, Del.; Atlanta; Chicago; Charlotte, N.C.; Lancaster, Pa; and Dallas/Ft. Worth. Alumni Club Coordinators assist with selecting locations, formats, and dates for UD alumni events in their area. The Alumni Office helps plan events, so responsibility does not rest solely on the Club Coordinator. If you are interested, please visit [www.udel.edu/alumni/clubs/] or call the Alumni Office at (302) 831-2341.

KATHY F. ATKINSON



Many members of the Class of 1955 turned out for their 50th reunion, as did members of the classes of 1960, 1980, 1995 and 2000.

Awards of Excellence presented to three B&E alumni

Keep in touch!

What's happening in your life? Please keep us posted. Write to: Office of Alumni and University Relations, University of Delaware, Newark, DE 19716-7101, fax to (302) 831-2045, send e-mail to [alumnet@udel.edu] or fill out the web form at [www.udel.edu/alumni/intouch.html]. Let us hear from you!

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The Alfred Lerner College of Business and Economics has honored three of its graduates with the college's 2005 Alumni Awards of Excellence.

Nicholas M. Marsini Jr., a 1977 accounting graduate, Matthew C. Minker III, a 2001 master of business administration graduate, and Vincent A. Schiavi, a 1975 accounting graduate, were presented the awards at a ceremony during Homecoming weekend. The annual Alumni Awards of Excellence were established in 1991 to honor graduates of the college who have exhibited exceptional accomplishments in their contributions to their professions and to the community.

Marsini is executive vice president, chief financial officer and treasurer of PFPC Worldwide, a member of the PNC Financial Services Group, where he is responsible for all financial functions and support services for PFPC operations. He also is chairman of PFPC Trust Co. and chairman and president of PFPC Trustee and Custodial Services in Dublin, Ireland.



Nicholas M. Marsini

Marsini is a member of the Financial Executives Institute and is active in numerous community organizations. In addition to his bachelor's degree from UD, he earned a master of business administration degree from Widener University. He and his wife, Julia, live in Centerville, Del., with their two sons.

Minker is owner and president of Minker Construction, which has been recognized by *Inc. Magazine* for its fast-paced growth. He also is



Matthew C. Minker

Minker serves on the boards and executive committees of several baseball organizations. He earned his bachelor's degree in engineering at UD in 1968. He has two adult children and three grandchildren and lives in Wilmington with his wife, Carol.

Schiavi is the founder and president of Schiavi & Co., Delaware's first fee-only financial planning firm, which currently has assets of more than \$150 million. He has been recognized by *Worth Magazine*, *Mutual Funds Magazine*, the Delaware Department of Justice Securities Division and *Bloomberg Wealth Manager Magazine* as a top financial adviser and wealth manager.



Vincent A. Schiavi

Schiavi is a certified financial planner and a member of numerous professional and community organizations. He and his wife, Mary Ann, live in Wilmington, Del., with their three children.

Outstanding alumni recognized

Robert B. Horne, '55EG, and Marilyn Smith Horne, CHEP '55, of West Chester, Pa., received UD's Outstanding Alumni awards during Homecoming Weekend Oct. 7-9. Bob, who received his degree in chemical engineering, was a member of the cheerleading squad and was a letterman in lacrosse. Marilyn received her bachelor's degree in elementary education and was active in the women's Playbill while at the University. The couple have served on several reunion committees for their class including their 50th reunion committee this year.



KATHY F. ATKINSON

Marilyn Smith Horne and Robert B. Horne

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- EG—Engineering
- GS—Graduate Studies
- MS—Marine Studies
- AA—Associate of arts or science degree
- H—honorary degree
- M—master's degree
- PhD/EDD—doctorate

Seminary California, was honored by his colleagues with a book titled, *The Festschrift, The Pattern of Sound Doctrine: Essays in Honor of Robert Strimple*.

Ted Mangel '58AS, of Clearwater, Fla., retired as certified pharmacy technician with St. Petersburg General Hospital in St. Petersburg, Fla.

poetry and a one-person play, *Center Piece*, which she has performed in Boston and other cities. Her poems and columns can be seen at [www.ellensteinbaum.com].

Roy Lee Williams '65AS/PhD, of Carrollton, Va., was named professor emeritus of chemistry after 40 years of teaching and research at Old Dominion University.

Henry Gysling '67AS/PhD, of Rochester, N.Y., retired from Kodak in 2004 and is working as a technology director for AirFlow Catalyst Systems there.

Mary Kay Porter '68AS, of Milford, Conn., designs manuals, tutorials and software for analytical instruments at PerkinElmer, a global technology provider of products and services in health and industrial sciences.

THE '60s

Bill Harman '62EG, of Westford, Mass., retired from the technical staff of the Massachusetts Institute of Technology Lincoln Laboratory after 37 years in radar. He volunteers with the Massachusetts Audubon Society.

Ellen Zell Steinbaum '64AS, of Boston, writes a literary column for *The Boston Globe* and has published a book of

THE '50s

K. Robert Lang '53AS/M, '56PhD, of Philadelphia, organized the Rickshaw Reunion, a visit to China for former residents of Shanghai, of which he is one. A Russian translation of his 1999 book *Surfactants* has been published.

Robert Strimple '56AS, of Escondido, Calif., professor emeritus of systematic theology at Westminster

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Shirish Shah '68AS/PhD, of Baltimore, a professor of chemistry at Towson University in Towson, Md., won the 2004 Salute to Excellence Award from the American Chemical Society and was chosen one of the society's 2005 outstanding coordinators for his participation in its Chemagination program.

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1 9 7 0

Jeffrey A. Smith AS, of Newark, Del., a fine arts photographer, spent a month in Franklinton, La., as a Peace Corps/Crisis Corps volunteer helping victims of Hurricane Katrina apply for assistance.

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1 9 7 3

Ken Rosenthal AS/PhD, of Akron,

Ohio, is professor of chemistry and biochemistry at Northeastern Ohio University College of Medicine in Rootstown, Ohio, and a lecturer for the American Society for Microbiology Waksman Foundation lecture program.

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1 9 7 4

Naresh Batta AS/M, of Kennett Square, Pa., is president and CEO of Batta Environmental in Newark, Del.

Art Durnan AG, of Perth, Australia, principal adviser on maintenance and reliability improvement projects for Rio Tinto, a diversified mining company, received the 2004 Augustus H. Gill Award for Excellence in Oil Analysis from the International Council for Machinery Lubrication. At the time, he was working for Rio Tinto's

Kennecott Energy, which operates five surface coal mines in Montana, Wyoming and Colorado. **George Steven Nutter AG**, of Moorestown, N.J., general manager of Barwil Agencies NA Inc., was elected to the board of directors of the Maritime Exchange, which promotes the Delaware River and Bay as a major commerce center on the Eastern seaboard.

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1 9 7 5

Mark Vuolo AS, of Casper, Wyo., a psychiatrist in private practice, also works with the community mental health center there.

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1 9 7 6

James Gkonos AS, of Downingtown, Pa., joined the law firm of

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Saul Ewing as special counsel in its litigation department, specializing in insurance matters.

1 9 7 7

Robert Slowik CHS, '85CHS/M, of Highlands Ranch, Colo., is defensive back coach for the Denver Broncos.

1 9 7 8

Steve Mosko AS, of Culver City, Calif., president of Sony Pictures Television, was inducted into the Broadcasting and Cable Hall of Fame honoring the industry's leading pioneers, innovators and stars of the electronic arts.
Donna Cook Stephens CHS, of Northfield, N.J., is director of quality improvement at Shore Memorial

Hospital.
Paul Thorson BE, of Wilmington, Del., purchasing manager for AstraZeneca Pharmaceuticals' Newark, Del., site, was elected president of the National Association of Purchasing Management of Delaware.

1 9 7 9

Jane McLaughlin AS, of Ambler, Pa., president of LifeCycle Software, was elected to the board of directors of the National Association of Women Business Owners, Greater Philadelphia chapter.

1 9 8 0

Pam Adams Lehr EG, of Boca Raton, Fla., is a senior supervising engineer in the Water Quality Division of the South Florida Water

Management District in West Palm Beach.
Michael Morfe AS, of Princeton Junction, N.J., vice president of Aon Consulting of Somerset, N.J., is a national expert on retiree medical and Medicare Part D issues.

Caroline Miksch Sukman AS, of Bali, Indonesia, textile designer and owner of Pelange Design, was one of five designers chosen for the "World of Batik" exhibition at the American Textile History Museum in Lowell, Mass. Her clothing line is Cinnabar Blue.

Elizabeth Hyde Thompson AS, of Richfield Springs, N.Y., is a salesperson for Mary Kay products.

1 9 8 1

Mark Ashwill AS, of Hanoi, previously the director of the World Languages Institute at

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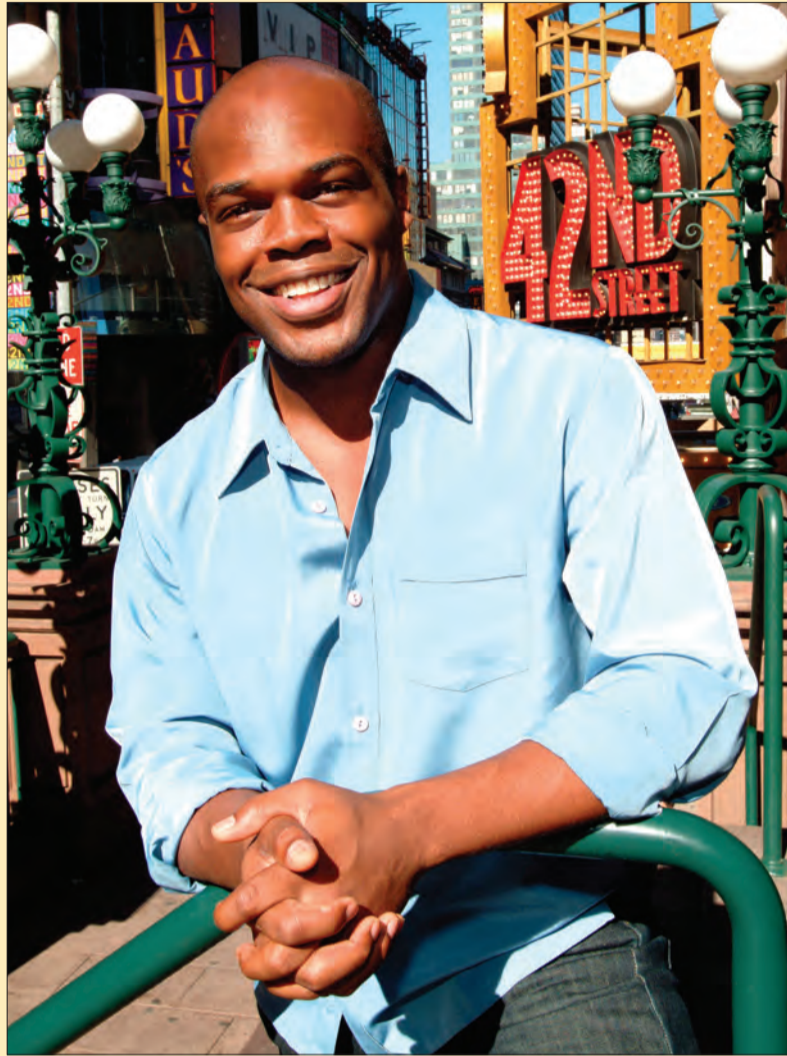


Showcasing his talent

Tyron Jones, AS '92, '95M, is one of 14 actors chosen from a field of 600 to join the ABC Talent Showcase, which gives minority actors an opportunity to work with professional directors on a scene that will be shown to top talent agents and casting directors.

According to Keli Lee, executive vice president of talent and casting at ABC, "We wanted to proactively find, develop and nurture untapped talent from all diverse backgrounds. And, of course, ideally, cast them in our shows."

Jones, who recently appeared on Broadway with Denzel Washington in *Julius Caesar* and is currently appearing in nationwide television commercials, says, "I am thankful for this showcase. This business is all about baby steps. I'm ready to break into a jog." ♦



ERIC CROSSAN

State University of New York at Buffalo, has been appointed director of the Institute of International Education's Vietnam offices in Hanoi and Ho Chi Minh City, providing direct support to the Vietnam Fulbright program.

Steven Eller BE, of Closter, N.J., certified public accountant and attorney, joined the law firm of Rosen Seymour Shapss Martin & Co. as a tax partner.

Matthew D. Seltzer AG, of Hillside, N.J., has been promoted to senior director with Cushman & Wakefield Inc., a provider of global real estate solutions.

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1 9 8 2

John Bortz EG, of Owings, Md., a landing gear systems team leader with

Naval Air Systems Command, was inducted into the Naval Air Systems Command Fellows Program, which is open to the top 3 percent of technical professionals.

Vince Colonna AS, of Miami Beach, Fla., has been accepted into the National Alliance for Musical Theatre, the only national service organization for musical theatre productions.

Thomas Forrest BE, of Wilmington, Del., is president and CEO of U.S. Trust Co. of Delaware.

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1 9 8 3

Renosi Mokate CHEP/M, of Tshwane, South Africa, has been appointed deputy governor of the South African Reserve Bank there.



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1 9 8 4

Mark Manniso AS, of Newark, Del., founder of Forte Inc., a creative merchandise agency, received the 2004 Family Business of the Year Award from the Delaware Small Business Development Center.

Scott Peoples AS, of Cary, N.C., is global marketing manager for BASF's Agricultural Products Division.

1 9 8 5

Kathryn Schmidt Belville AG, of Springfield, Pa., is one of 70 individuals nationwide to earn master arborist board certification from the International Society of Arboriculture.

Joseph G. Sapone AS, of Shrewsbury, N.J., is regional sales manager for Phibrochem, a

specialty chemical provider.

Jeganathan Sriskandarajah AS, of Madison, Wisc., teaches at Madison Area Technical College and serves as faculty adviser for the math club.

1 9 8 6

David E. Chambers BE, of Glen Falls, N.Y., was named senior vice president and client executive in the Albany office of Marsh, an insurance brokerage and risk advisement firm.

Alan Flenner EG, of Camp Hill, Pa., an attorney with the Norristown, Pa., law firm of High, Swartz, Roberts & Seidel and commander in the U.S. Naval Reserves, accepted command of Naval Mobile Construction Battalion 21 and now leads 600 Navy Seabees in Pennsylvania, New York and New Jersey.

1 9 8 7

Jim Farrell AS, '88/M, of Wilmington, Del., a political consultant and former spokesperson for the late Sen. Paul Wellstone of Minnesota, was named executive director of the Montana Democratic Party.

1 9 8 8

Steven Charnick EG, of Lansdale, Pa., is a senior research fellow in the pharmacokinetics group of the drug metabolism department of Merck Research Laboratories in West Point, Pa.

Bridget Toal Simpkins AS, of Springfield, Va., a senior policy and requirements analyst for Science Applications International Corp., is on contract to Air Force headquarters at the Pentagon.

1 9 8 9

Laurie Eisenberg Brancato CHEP, of Hasbrouck Heights, N.J., is a customer service representative with Lonza Inc., which develops, manufactures and markets a broad range of complex fine chemicals, polymers, additives and chemical specialties.

Patricia Enright AS, of Harrisburg, was appointed director of

the Office of Public Liaison for Pennsylvania.

Matthew Gore AS, of Los Angeles, visual effects producer for Zoic Studios there, was nominated for a 2005 Emmy Award for best visual effects in a television series for the Sci Fi Channel's *Battlestar Galactica*.

1 9 9 0


Debra Frederick Brucker AS, of

Hillsborough, N.J., is a researcher with Mathematica Policy Research in Princeton, N.J.

Linda Donofrio AS, of Reading, Pa., is a sales consultant with OMNII Pharmaceuticals in Philadelphia.

1 9 9 1

Sumitra Dey-Bose BE/M, of San Jose, Calif., is a realtor with Referral Realty of



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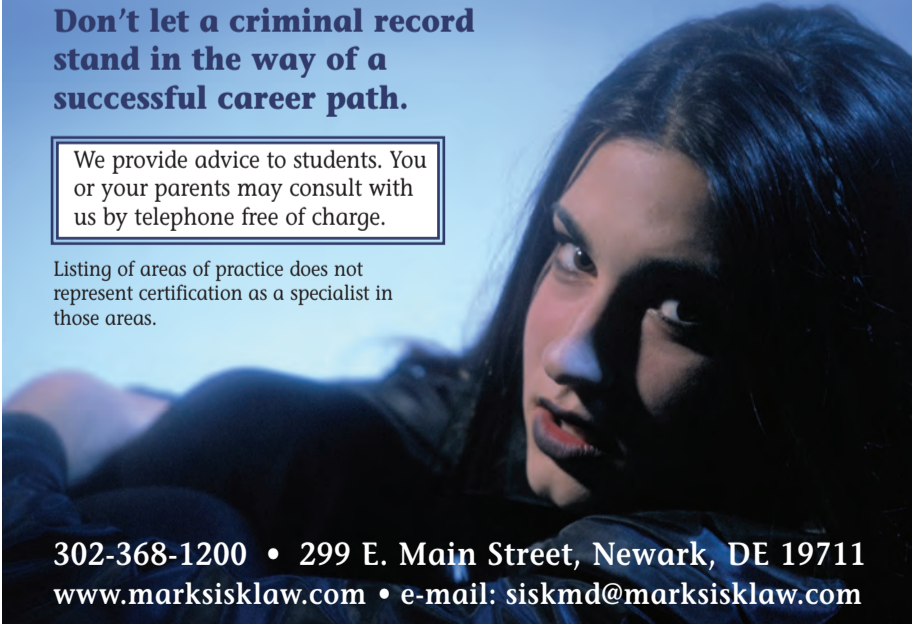
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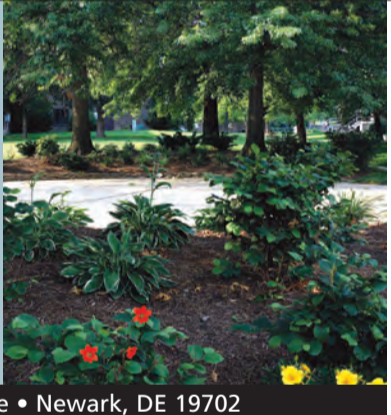
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These Maryland Double Dels are both involved in the financial services industry. Brian N. Whitworth '97BE is a section manager in the customer assistance department for MBNA bank in Hunt Valley, Md. Latisha Stillwell Whitworth '98BE, a select banker with M&T Bank in Maryland, recently received her licenses in life and health insurance and securities. The couple, who live in Edgewood, Md., both participate in the youth ministry of their church, Prince of Peace. ♦

Sunnyvale, Calif. **Christopher Grote AS/PhD**, of St. Louis, is senior research associate with Mallinckrodt Pharmaceuticals there.

Kathleen Keath BE, of New Castle, Del., is a certified public accountant and partner-owner of Positive Planning LLC/Delmarva Power.

Jeanine Kaczorowski Moore CHEP, of Millsboro, Del., a fourth-grade teacher at Long Neck Elementary School there, was named Social Studies Teacher of the Year by the Indian River School District.

Dennis Palalay AG, of Elkton, Md., who received a master's degree in health sciences from Johns Hopkins' Bloomberg School of Public Health, is a major in the U.S. Army and program manager with the Army's Center for Health Promotion and

Preventive Medicine, Aberdeen Proving Grounds, Md.

Joseph Shane AS, of Shippensburg, Pa., is a chemical educator with Shippensburg University there.

1 9 9 2

Howard Kramen BE, of Glen Allen, Va., is the founder and owner of United Marketing Solutions of Richmond, a direct mail advertising company.

Jim Purcell AS, CHEP/M, of Milford, Del., is president of Communities in Schools of Delaware, which establishes relationships with young people to help them succeed in school.

Quinetta Roberson BE, of Ithaca, N.Y., was promoted to associate professor of human resource management in the School of Industrial and Labor Relations at Cornell University.

1 9 9 3

Denise Sala Bushell AS, of Woodcliff Lake, N.J., is an attorney in the professional error and omissions unit of St. Paul Travelers Insurance Co., in Morris Plains, N.J.

Lyman Chen BE, of Wilmington, Del., is an actor appearing in Martin Scorsese's film, *The Departed*, as Jack Nicholson's interpreter.

Marc Greenstein AS, of Towaco, N.J., a urologist, performs robotic surgery at the North Jersey Center for Urologic Care.

1 9 9 4

Bhavana Joneja AS, of New York City, is an attorney and associate in the intellectual property practice groups at King & Spalding, specializing in patent litigation.

continued on page 117

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Marriages



Tyrone Bowden '00AS married Vanessa Villegas '02CHEP, Aug. 5, 2005.



Christine Galasso '95AS married Marcos Lara, Nov. 14, 2004.



Aja Inskeep '02AS married Jason McDowell '05AS, Sept. 4, 2005.



Kirsten Jason '01CHEP married Gregory Jensen, Aug. 5, 2005.



Kristen Buzzell '03CHEP married Dustin Best, Aug. 21, 2004.



Robin Blair '95BE married Kevin Towey, Oct. 4, 2003.



Carolyn Bockius '96CHEP married Gabriel Jackson Oct. 2, 2004.

Ann Paglee '93BE to Brad Bozick, April 16, 2005

Mary Stuart Scott '93AS to Christopher James Gregory, Dec. 4, 2004

Dana Smith '93BE to Howie Steiner, May 15, 2005

Eric Envall '96AS to Erica Moore, April 30, 2005

Corey Arnold '97AS to **Edie Myers '97AS**, April 16, 2005

Carli Blische '97CHS to Christopher Surk, June 18, 2005

Larry Tong '97AG to **Karen McKay '03BE**, Sept. 9, 2005



Allison M. Ohme '01CHEP married Patrick Walters '00CHS, July 30, 2005.

Tara Bacci '98CHEP to **Cary Davidson '99CHS**, Aug. 29, 2004

Jennifer Kolu '98CHS to Sean Kirk, Sept. 5, 2004

Eric Lewbart '00AS/M to Bonnie Feiner, April 16, 2005

Cristina Vickery '01AS to **Scott Mattocks '01AS**, July 9, 2004 ♦



*More
Marriages*



Hao Zou '97BE/M married Liang Li '97EG/M, April 16, 2005.



Rebecca Ettinger '02CHEP married John Heiss '02AS, May 21, 2005.



Roger Hornby '99AS married Corinne Mueller on Sept. 3, 2005. Members of the wedding party are pictured left to right: front row, Natalia Weiss Beley '99CHEP, Melissa Cohen Grunbaum '00AS, Amanda Cohen Reuter '00AS, Corrine and Roger, David Difalco '99CHEP, James Smedley III '99AS; back row, Evan Grunbaum '99CHEP, Rick Beley '99AS, Chris Yasjejko '99AS, Josh Kutenplon '99BE, Brian Phipps '99BE, Kelly Konwinski Smedley '99CHS, David Ryan '00AS, Allison McGowan Ryan '99BE, Jeremy Muratore '99AS, Robert Cahill '99BE, Michael Pisano '99BE, Brian Pippin '99AS, Deepok Pradhan '99AS, Merideth Bender Moyer '99AG, Jennifer Cleary Roche '99AS, Sander Gottlieb '00CHEP and Robert Roche '98EG.



Lynn Noodam '96CHS married Samuel Herring, June 4, 2005.



Laurie Robbins '98BE married Jerry Leal, Sept. 4, 2004.



Lisa A. Marra '04CHEP married Charles J. McKenna, Dec. 8, 2004.



Amanda Smith '95CHEP married Bob Welshmer '93AS (far left), May 14, 2005. Members of the wedding party included Jason Breyo '92AS, Aaron Leonard '92AS, Michael Santos '92AS, Anthony DiMarzo '95AS, Drew Heinold '91AS and John Wunder '93BE.



*More
Marriages*



Kimberly Slasinski '01CHEP married Patrick McCoy '03AS, Oct. 16, 2004.



William Franklyn Conway '97EG to Kristin Erin Morgan '01EG, Oct. 30, 2004



Jennifer Mizak '98CHEP married Marc Bechtel, Aug. 6, 2005.



Diana Barbara McDonald '02AS married Julian Richard Wells, Aug. 20, 2004.



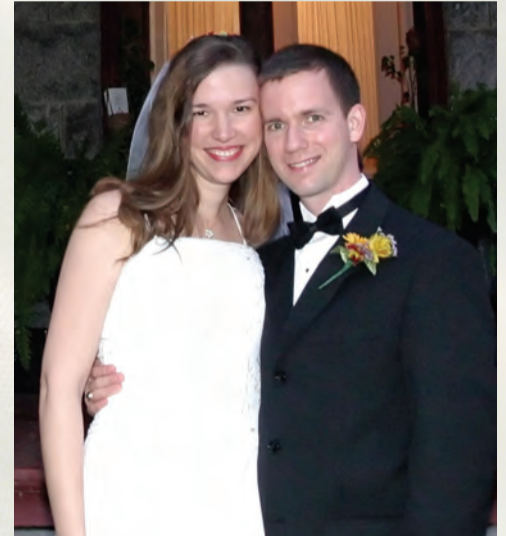
Kristen Lana Banks '02EG married Milton Melendez '04CHEP, Oct. 13, 2004.



Jeanette Noelke '03AS married Bryan Perey '02CHS, June 18, 2005.



Robin Ruark '94AG married Karen Johnsen '95CHEP, Oct. 30, 2004.



Julia W. Packard '96CHEP married Paul T. Hunter, Oct. 29, 2004.



Diana Waxman '02AS married Brent J. Freccia '02AS, July 10, 2005.

ATTENTION, NEWLYWEDS:

Please submit photos and wedding information to the Office of Alumni and University Relations [alumnnet@udel.edu]. Be sure that news of your marriage includes the date of the ceremony as well as your graduation year and college. Please submit your wedding news

within a year after the ceremony. Color photographs or digital images at least 2-1/2 inches wide and 300 dpi, saved as high-quality jpgs, may be submitted. Wedding party pictures, at least 5 inches wide, may be used if they include only UD alumni. ♦



Broadway bound

Each spring for 20 years, five UD alumnae have gathered in New Jersey to share a weekend of memories and a hit play on Broadway. The five, all of whom lived in Russell D Residence Hall in the early 1970s, travel from Virginia, Pennsylvania and California for the annual event. Shown here with Boomer the dog are, standing behind the wall, Nancy Cormany Bellis, CHS '72, of Ottsville, Pa.; seated on the wall, from left, Joan Winchester, AS '73, CHEP '75M, of Alexandria, Va., Sheri Giordano Borrin, BE '72, of Ridgewood, N.J., and friend Winnie Frost; and standing in front of the wall, Mary Cormany Flaherty, CHS '72, of Richmond, Va., friend Kate Colman, and Beth Durbin Young, AS '72 of Pebble Beach, Calif. ♦



continued from 113

Brandon Jones MS/M, '03MS/PhD, of Crofton, Md., a marine biologist with the U.S.

Environmental Protection Agency, recently received the national Suzanne E. Olive Award, which is presented to EPA employees who promote equal opportunity through leadership and innovative efforts.

Robin Mazin Van Metre AS, of Fort Collins, Colo., is a veterinarian with the Fort Collins Veterinary Emergency Hospital.

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Jennifer Ogradnick Cochran AS, of Stanford, Calif., is an assistant professor of bioengineering at Stanford University there.

Lowell Matthews BE, of Chicago, is major

gifts manager for the AIDS Foundation of Chicago.

Jessica Cincotta Moore AS, of Dayton, N.J., is a human resources generalist with GE Healthcare.

Tom Morley AS, of Alexandria, Va., is a manager with BearingPoint Inc., which offers strategic consulting, application services, technology solutions and management services to companies and government organizations.

Michelle Olson AS, of Danville, Pa., is a colorectal surgeon at Geisinger Medical Center there.

Heather Patton-Graham AS, of Drexel Hill, Pa., an Episcopal priest, is the lower school chaplain at The Episcopal Academy there.

Lauren Murray Simone BE, of Newark, Del., is

continued on page 119

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New Additions



Erin Marie Donohue was born Dec. 5, 2004, to Nicole Krupp Donohue '96CHS and Chris Donohue '97EG, of Newark, Del.

Julia Rose Kathleen Crumpacker, born Aug. 7, 2005, to **Gretchen Schuckert Crumpacker '81AS** and Benjamin Crumpacker, of Costa Mesa, Calif.

Samuel Joseph Bartkowski, born Aug. 12, 2005, to **Matthew Bartkowski '89AS** and **Stacy Walls Bartkowski '93AS, '96M**, of Hockessin, Del.

Christina Muglia, born Feb. 26, 2005, to **Linda Serrao Muglia '89BE** and Nicholas Muglia IV, of Staten Island, N.Y.

George Patterson Cross, born June 15, 2005, to **Caroline Lee Cross '90AS** and Richard H. Cross Jr., of Wilmington, Del.

Sophia Ryan Hunt, born April 4, 2005, to **Donna Ryan Hunt '91BE** and Charles Hunt, of Houston, Texas.

Katherine Justine Lillard, born Oct. 14, 2004, to **Martha McKeown Lillard '92AG** and Thomas Lillard, of Weymouth, Mass.



Abbie Julia Kessler was born Jan. 17, 2005, to Lisa Jay Kessler '98AS and Dan Kessler '97AS, of Mount Laurel, N.J.

Lauren Ferré Dumin, born Aug. 9, 2005, to **Nels Dumin '93EG/M** and **Jennifer Sharrow Dumin '94EG**, of Wylie, Texas.

Kara Tucker, born Aug. 16, 2005, to **Laura Miller Tucker '93CHEP** and Jeff Tucker, of Denville, N.J.

Benjamin Ian Cohn, born Jan. 30, 2005, to **Amy Cardonick Cohn '94AS** and Matthew Cohn, of Westminster, Md.

Avery Reese David, born June 17, 2005, to Wendy David and **Gregg David '94AS**, of Dobbs Ferry, N.J.

Evan Charles Watkins Robinson, born March 25, 2005, to **Jennifer Watkins Robinson '94AS** and Paul Robinson Jr., of Fairfax, Va.



Kyle William Kearns was born Dec. 15, 2004, to William Andrew Kearns III '91BE and Rachel Ann Wohlstein Kearns '96BE.

Zachary Louis Ermann, born March 16, 2005, to **Lauren Ehrlich Ermann '95AS** and Michael Ermann, of Blacksburg, Va.

Pender Elizabeth Liberi, born Aug. 31, 2005, to **Victor Liberi '95CHS/M** and **Karen Sullivan Liberi '96CHS/M**, of Gorham, Maine.

Kyle Christopher Mach, born June 8, 2005, to **Gina Rolla Mach '95CHEP** and **Christopher Mach '96CHS**, of Fairfield, Conn.

Andrew Thomas Moore, born May 25, 2005, to **Robert Moore '95AS** and **Christa Hopkins Moore '96CHS**, of Runnemede, N.J.



Robert John March IV was born Sept. 15, 2004, to Alison Roath March '98AS and Robert March III '98EG, '99M, of Abingdon, Md.

Lillian Margaret Young, born Feb. 1, 2005, to **Heather Couch Young '95CHEP** and David Young, of Laughlintown, Pa.

Josie Reese Belkin, born March 22, 2005, to **Melissa Golder Belkin '96CHEP** and Paul Belkin, of Rockville, Md.

Samantha Paige Levy, born May 25, 2005, to **Jennifer Silver Levy '96AS** and Scott Levy, of Voorhees, N.J.

Melanie Grace Siskind, born Nov. 13, 2004, to **Sindi Moskowitz Siskind '96CHEP** and Aaron Siskind, of Montgomery Village, Md.

Caleb Daniel Spangler, born Jan. 1, 2005, to **Shelly Straight Spangler '96AG** and Sam Spangler, of Roanoke, Va.

Lukas Andrew Demskis, born April 27, 2005, to **Erinn Van Buskirk Demskis '97AS, '00M**



Dylan Chung-Shan Lee Quirk was born Sept. 23, 2004, to Katherine W. Lee '97 CHEP and Michael C. Quirk of Bear, Del.



Andrew Stephen DeAngelis was born March 24, 2005, to Kristine Chamberlain DeAngelis '88AS and Lewis DeAngelis '88AS, of Branchburg, N.J.



Kevin Henry Wittekind was born Sept. 21, 2004, to Stacy Goldin '95AS and Marc Wittekind '95CHS of Ossining, N.Y.



Ryan Joseph Wong was born July 7, 2005, to Dana Giardina Wong '96AS and Jim Wong '96AS.



More
New Additions



Griffin Welling Barrows was born Nov. 30, 2004, to Jennifer Welling Barrows '91AS and Brian Kirkpatrick Barrows '95CHEP, of Lewes, Del.



Siena Faith and Anya Lee Guttormson were born July 5, 2004, to Tamara Panaia Guttormson '96AS and Paul Guttormson, of Colorado Springs.



James Ryan Pollock was born Dec. 27, 2004, to Jack Pollock Jr. '82BE and Brenda Pollock, of Newark, Del. Seated with James is big sister Karen.

ATTENTION, PARENTS:

Please submit your baby news within a year after the birth. Photos of babies must feature them in UD or Blue Hen attire. Be sure that news of your baby includes the birth date as well as parents' graduation years and colleges. Color photographs or digital images at least 2-1/2 inches wide and 300 dpi, saved as high-quality jpgs, may be submitted. Please submit to the Office of Alumni and University Relations [alumnet@udel.edu]. ♦

and **Douglas Demskis '97BE**, of Newtown, Pa.

Patricia McAleese Riley, born June 17, 2005, to **Carrie McAleese Riley '97AS** and Sean Riley, of Falmouth, Maine.

Jaden David Howard, born March 25, 2005, to **Shelia Patterson Howard '98AS** and Lance Howard, of Bear, Del.

Pearse Michael McGeehan, born April 5, 2005, to **Ryan McGeehan '98AS** and Becky McGeehan, of Coatesville, Pa.

Nicholas James Belsky, born July 25, 2005, to **Jennifer Sterner Belsky '99AS/PhD** and **Alec Belsky '99AS/PhD**, of East Greenville, Pa.

Riley Leo Walker, born Nov. 4, 2004, to **Harry Walker '99CHS** and **Katie Gordon Walker '02CHEP**, of Wilmington, Del.

Aiden Patrick McGeehan, born March 26, 2005, to **Kristi Mickles McGeehan '00AS** and Tim McGeehan, of Monterey, Calif.

Jack Pearse Watson, born Sept. 11, 2005, to **Matthew Watson '00AS** and Tricia Watson, of Brunswick, Maine. ♦

continued from page 117

assistant director of alumni relations at the University of Delaware.

Christopher Tipping AG, of Blue Bell, Pa., is an assistant professor at Delaware Valley College, Doylestown, Pa.

Robin Blair Towey BE, of Philadelphia, is founder and president of ROOM, an interior design studio there.

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Ethan Badman AS, of Ames, Iowa, is assistant professor of chemistry at Iowa State University.

Ravi Dattani BE, of Hockessin, Del., a certified public accountant and financial adviser for Shiavi + Company, has completed the requirements to become a certified financial planner.

Deborah Deuel AS, of Elkton, Md., a molecular biologist, retired from the DuPont Co.

Mare Dianora AS, of Sag Harbor, N.Y., received a master of fine arts degree from Goddard College in Plainfield, Vt., and is artist-in-residence at NYU Medical Center.

Beth Doherty CHEP, of Cambridge, Mass., received a master's degree from Harvard University Graduate School of Education in the mind, brain and education program there.

Christian Hermansen AS, of Mountville, Pa., is associate director of the Lancaster General Hospital's family medicine residency program.

Ashley Mancinelli AS, of Frederick, Md., is director of legal services for Heartly House Inc., a nonprofit organization in Frederick County that assists survivors of domestic violence,

rape and sexual assault.

David Maturo CHEP/M, of Deptford, N.J., is CEO of Attolon Partners, a Center City Philadelphia employment agency that places professionals with senior level responsibility in finance, accounting and administration.

Janice McLean AS, of Elizabeth, N.J., received a master of theology degree from Princeton Theological Seminary.

Nicole Milan-Tyner CHEP/M, of Egg Harbor Township, N.J., is coordinator of health planning, information and education with the Atlantic County Division of Public Health.

Mike Russo BE, of Collegeville, Pa., a certified public accountant and registered investment representative with Anthony Russo, CPA, is working toward a certified financial planner designation.

Nicole Schreiber AS, of Cherry Hill, N.J., is attending veterinary school at the

University of Pennsylvania School of Veterinary Medicine in Philadelphia.

William Shaw Jr. AG, of Washington, D.C., is an interdisciplinary microbiologist for the U.S.

Department of Agriculture Food Safety and Inspection Service.

Bob Strab AS, of Wilmington, Del., is manager of the in-vitro screening lab of Absorption Systems in Exton, Pa., which provides drug development services to pharmaceutical and biotechnology companies.

Cindy Tobery AS, of Long Island City, N.Y., is an administrator in a program for gender equity in the sciences at Hunter College there.

Adam Walker BE, '05BE/M, of Somerset N.J., is an account manager with Amerada Hess Corp., which deals in exploration, production, refineries and retail sales of oil and gas.

Joseph Wunderlich EG/PhD, of Manheim, Pa., is an associate professor of

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IN MEMORIAM

Edith C. Passmore '29AS, of Kennett Square, Pa., July 18, 2005

Roberta Phillips Kohl '33CHEP, of Atlanta, July 27, 2005

Ernest DiSabatino '36EG, of Wilmington, Del., Aug. 24, 2005

Marion Spencer Dressler '36AS, of Bridgewater, Ga., June 22, 2005

Woodrow Wilson Hughes '36AS, of Wilmington, Del., Aug. 14, 2005

Elmer Baldwin '38EG, of Seaford, Del., Aug. 12, 2005

Jean Barnes Morton '38AS, of Wilmington, Del., Aug. 19, 2005

James H. Hull '39EG, of Georgetown, Texas, July 5, 2005

Marie Carson Lindell '39CHEP, of Newark, Del., Aug. 26, 2005

Frank D. Cannon '40AS, of Seaford, Del., June 9, 2005

Ann W. Chalmers '40CHEP/M, of Newark, Del., July 13, 2005

William G. Shaw '40AS, of Marietta, Ga., March 23, 2005

Jacob Balick '42AS, of Wilmington, Del., July 18, 2005

Dorothy Cann Hopkins '42AS, of Lewes, Del., July 1, 2005

Robert H. Goldey '43EG, of Hilton Head, S.C., Aug. 20, 2005

Laura Kirby MacPherson '44AS, of Easton, Md., July 30, 2005

Mark Jacoby '48AS, of Boca Raton, Fla., June 20, 2005

Edgar Maurice Ferree '49AS/M, of Quarryville, Pa., July 16, 2005

John E. Wilson III '49CHEP, of Smyrna, Del., Aug. 22, 2005

Thomas F. Rutledge '50AS/PhD, of Chester, Pa., June 24, 2005

Arthur M. Coddling '51BE, of Holmes, Pa., June 4, 2005

Bettyann Simeone '51CHEP, of Wilmington, Del., June 10, 2005

Werner M. Stallmann '51EG, of Orlando, Fla., June 22, 2005

John C. Graebner '52EG, of Ringoes, N.J., Oct. 30, 2004

Seymour Kaplowitz '52CHS, of Dunnellon, Fla., Aug. 24, 2005

William E. (Coach) Horney '53CHEP, of Newark, Del., July 2, 2005

Martha Shillito Kinter '54AS, of Tarpon Springs, Fla., April 19, 2005

Cecile Beatrice Snyder '55CHEP, '58M, of Wilmington, Del., June 1, 2005

Lawrence P. Lore '56AS, of Westmont, N.J., June 17, 2005

Charles Sims Heckert '57AG, '80BE/M, of Wilmington, Del., June 1, 2005

Walter Z. Collings Sr. '58EG, '61M, '70PhD, of Newark, Del., July 21, 2005

Wilber Richard Evans '60CHEP/M, of Orlando, Fla., July 12, 2005

John L. Holloway III '62EG, of Tucson, Ariz., Aug. 20, 2005

Thomas E. Simpson '62AS, of Newark, Del., June 18, 2005

Madeline Arnold Dunn '65AS/M, of Laurel, Del., July 6, 2005

Elvira Piccarisi Snyder '65CHEP, of Lewes, Del., June 14, 2005

John M. McGinnis '66AG, of Fort Myers, Fla., June 15, 2005

John W. Ward '66AS/M, of Wytheville, Va., June 2, 2005

Leonard Bundy '67CHEP/M, of Wilmington, Del., June 23, 2005

Robert M. Johnson '67CHEP/M, of Bridgeville, Del., July 30, 2005

Hannah Ale McDonough '67CHEP, '68M, of Newark, N.J., June 17, 2005

Genaro Pennachi '68CHEP, '70M, '71M, of Hillsborough, N.C., May 5, 2005

David H. Conklin II '70AS, of Wilmington, Del., June 14, 2005

Alice Narcowich '70AS, of Morgantown, Pa., Feb. 18, 2005

Walter Silowka '70EG, of Allentown, Pa., Aug. 14, 2005

Frank W. Cranston '71BE, of Dover, Del., July 10, 2005

Constance Willis Dunbar '71CHEP/M, of Elkton, Md., Aug. 20, 2005

David W. Lipp '72AS/M, of Amherst, Mass., June 16, 2005

Catherine Hogshead Carpenito '73AS, of Raleigh, N.C., Aug. 25, 2005

Carl E.W. Hauger Jr. '73AS, '75CHEP/M, of Wilmington, Del., June 19, 2005

Lee C. Levis '73AS, of Salisbury, Md., June 16, 2005

Elizabeth Dermott Gilmore '74CHEP, of Seaford, Del., Aug. 17, 2005

Timothy T. Watson '77AS, of Cordova, Md., June 11, 2005

Donna M. Ciconte '79AS, of Newark, Del., May 26, 2005

Donald T. Hauk '81BE, of Wilmington, Del., June 21, 2005

Joseph B. Baker Jr. '84EG, of New Castle, Del., Aug. 6, 2005

Aaron Rivers '84AS, of Middletown, N.Y., Feb. 7, 2005

Kevin W. Parks '85BE, of Wilmington, Del., Aug. 2, 2005

David P. Ferretti '87EG, of Avondale, Pa., June 24, 2005

James A. Riedy '87AS, of Elkton, Md., June 14, 2005

John C. Spahr '87CHS, '88M, of Cherry Hill, N.J., May 2, 2005

William Joseph Etienne '89AS, of Newark, Del., July 31, 2005

Michael Hildebrandt '93AS, of Boca Raton, Fla., May 25, 2005

Tasha Holman '96AS/M, of Winston-Salem, N.C., Aug. 6, 2005

Richard Breder '03BE/M, of Newark, Del., Aug. 30, 2005

Andrew Hoefler '03AG/M, of Oxford, Pa., Aug. 10, 2005

Erik J. Mitsch '03AS, of Wilmington, Del., June 11, 2005 ♦

computer science and computer engineering at Elizabethtown (Pa.) College.

Keith Wynne CHEP, of Brooklyn, N.Y., received a master's degree in international development and education from Columbia University and teaches science at P.S. 56 in Brooklyn.

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Domonic Bearfield CHEP/M, of Durham, N.H., teaches in the political science department of the University of New Hampshire there. **Keith Hornberger AS**, of Apex, N.C., is a medicinal chemist with

GlaxoSmithKline there. **Michael Jordan AS**, of Bujumbura, Burundi, is the regional security officer at the U.S. Embassy there.

Jennifer L. Safford AS, of Philadelphia, a tax and estate planning attorney with Cozen O'Conner, received the 2005 Temple Law

Alumni Service Award for professional achievements in law. **Julianne Perry Schmidt BE**, of New York City, received a master's degree in education from New York University. **Dana Singleton BE**, of Englewood, N.J., is senior account executive with ID

Media Inc., a direct response media service in New York City. **Jamie Wilson AS**, of Brooklyn, N.Y., who received a doctorate in history from New York University, is an assistant professor of Afro-ethnic studies and history at California State University at Fullerton.

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Jeffrey Dougan AS, of Durham, N.C., accepted a position with Hugh Cummings High School in Burlington, N.C. **Erin Draper AS**, of Roslyn, Pa., has entered the Pennsylvania College of Optometry's Doctor of Optometry Program.



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Jennifer Gartner AS, of Longmont, Colo., who received a master of justice administration from Norwich University in Vermont, is general counsel for the Space Science Institute in Boulder, Colo.
Angela Jackson BE, of Baltimore, is a staff accountant with the U.S. Securities and Exchange Commission in Washington, D. C.
Jill Trafton Venton AS, of Ann Arbor, Mich., is an assistant professor of chemistry at the University of Virginia, Charlottesville.

1 9 9 9

Steven Bennett AS/PhD, of Bloomsburg, Pa., is an assistant professor of chemistry at Shippensburg University in Shippensburg, Pa.

Christina Bowers AS, of Chandler, Ariz., is a sixth-grade teacher at Phoenix Elementary School there.

Leah A. Jones CHEP, '01/M, of Wilmington,

Del., is an executive assistant to the Delaware Secretary of Health and Social Services.

Nicole Maholtz AS, of Penfield, Pa., received a master's degree in physician assistant studies from Philadelphia College of Osteopathic Medicine.

Bryan Nance CHEP/M, of Medford, Mass., is director of minority recruiting for the Massachusetts Institute of Technology's Office of Admissions.

Tim Van Winkle CHEP, of Haverford, Pa., is the executive chef for Restaurant Associates assigned to Winterthur Museum in Delaware.

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Keith Gutowski AS, of Tuscaloosa, Ala., a graduate student at the University of Alabama, was selected by Oak Ridge Associated Universities to be one

of 10 research associates to attend the 55th Lindau meeting of Nobel Laureates and students June 26-July 1 in Germany.

Kristin Kern Rose EG, of Newark, Del., is a survivability analyst for Service Engineering Co. of Belcamp, Md., which provides integrated solutions in systems engineering.

Carla Triolo CHS, of Wilmington, Del., was awarded a master's degree in physician assistant studies from the Philadelphia College of Osteopathic Medicine.

Tommy Wooster CHS, of Newark, Del., a bodybuilder, won the heavyweight division in the Delaware State and East Coast Classic bodybuilding competition.

Kristi Zecker BE, of Wheaton, Md., is a graduate student at George Washington University in Washington, D.C., pursuing a master's

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degree in human resource management and doing research and event planning for the Office of Graduate Life there.

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Benjamin Codi BE, of New York City, is president of Codi Bus Inc., a tour company there.
Scott Klokis BE, of New York City, is an associate with the

investment banking group at Amper, Politziner & Mattia, certified public accountants and consultants.
Sam Waller CHEP, of New York City, is managing director of Northwestern Mutual's New York City office.

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James Darley BE, of Bryn Mawr, Pa., is a lease consultant with

De Lage Laden Financial Services of Wayne, Pa.
James Dzwilewski BE, of Monmouth Junction, N.J., is in nonproprietor sales for Merrill Lynch, Pierce, Fenner & Smith.
Shunjun Song EG, of Ann Arbor, Mich., a research assistant at the University of Michigan, was cited in a *New York Times* article, along with other UD researchers for their research on

the qualities of the foam insulation used in the Space Shuttle *Columbia*.
Nicole Mitchell Walsh CHEP, of Exton, Pa., a secondary-school teacher in the Red Clay Consolidated School District in Wilmington, Del., received a master's degree in school administration and leadership from Johns Hopkins University in Baltimore.

2 0 0 3

Elena Danilina AS, of Dubai, United Arab Emirates, is an instructor at American University in Dubai.
Maureen Furci CHEP, of Sayville, N.Y., is a home and career skills teacher for Bayshore Middle School.
Marcie Redenbaugh CHS, of Macungie, Pa., received a master's degree in physician

assistant studies from Philadelphia College of Osteopathic Medicine.
Daniel Taylor BE, of Wilmington, Del., received a master's degree in economics from Duke University and is pursuing a doctorate at Stanford University.

2 0 0 4

Catherine Bakerian AS, of Newark, Del., is program and

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Alum twins appear on TV's 'The Cut'

When CBS's reality series, *The Cut*, aired its final segment, Sept. 7, UD graduates and identical twins Lisa and Nina Gordon, both AS 2004, modeled the fashions of one of the designer finalists in a Macy's window in Manhattan.

Lisa and Nina are the daughters of Linda Gottfredson, UD professor of education. Both graduated with honors and degrees in Spanish, Italian and French.

Since leaving the University, the twins have embarked on careers in modeling, freelancing for Twins Talent, Booked, R + L, LifeStyles, FunnyFace, Flaunt, Magteam, Innovative and Eye5.

Twins Talent booked them for *The Cut*, a reality TV show in which fashion design mogul Tommy Hilfiger conducted a search for the next great American designer, choosing from 16 style-savvy contestants who competed in a series assignments that tested



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Lisa and Nina Gordon

their talent, business acumen, sales and marketing expertise, social skills and resourcefulness.

The Gordon twins were modeling for Liz, one of the three finalists who presented their fashions in a window at Macy's Herald Square store. Liz unveiled a "day in the life" scene that started with pajamas

and ended with an evening gown.

Lisa Gordon said the pace was frenetic, but they loved it. "The idea was that the two of us were made to appear to be the same person. There were two of each of the three outfits—PJs with a robe, a business suit and an evening gown. One of us would enter the window dressed in the PJs and pretend to wake up and pick out the business suit hanging in the closet and then leave through a curtain. Then, the other would enter immediately already dressed in the business suit and pretend to prepare to leave for work."

"It was fun, but so chaotic because there was barely time to change into each outfit," Nina Gordon said. "There was a huge audience outside our store window. The public couldn't understand at first how one person could change so quickly, but some of them eventually figured out that we were twins." ♦

communications specialist with the Delaware State Chamber of Commerce. **Beth Tischler Becker AS/M**, of Malvern, Pa.,

is deputy director of the Civil War and Underground Railroad Museum of Philadelphia. **Kelly Chambers AS**, Dover, Del., is a student

at the Pennsylvania College of Optometry in Elkins Park, Pa. **Carol Gallagher CHEP/PhD**, of Lyndhurst, N.J., is

assistant bishop for the Diocese of Newark, N.J. **Richard Haas BE**, of Delran, N.J., is an advertising sales account executive with Verizon of Marlton, N.J.

Dave Rosenblum AS, of Philadelphia, is civic engagement senior corps member with City Year, an AmeriCorp program. **Bryan Schneider EG, '05BE/M** of Westfield, N.J., is an assistant engineer with Schering-Plough Research Institute.

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