

NDWorks

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News for Notre Dame faculty and staff and their families

Helping scientists understand the working of the universe

BY CAROL C. BRADLEY, NDWORKS

Physics professor **Michael Wiescher** is interested in the origin of the elements in the chemical evolution of the universe, and a new particle accelerator that began operations this month in Nieuwland Hall of Science will advance that research. “We try to simulate the reactions that take place in stars,” he says.

Our bodies, he notes, are 70 percent hydrogen—50 percent of which was formed 12 billion to 13 billion years ago in the Big Bang, and the rest formed in subsequent generations of stars.

“You have a direct personal connection,” Wiescher says. “Half of the atoms in your body have been part of supernova explosions of stars.”

The new particle accelerator—housed in a special high-density concrete tower as a radiation shield—was funded by the National Science Foundation (NSF) and represents a major equipment upgrade for the University. It’s the first accelerator the NSF has funded in nuclear physics since the 1980s.

The 15-ton accelerator, built in Wisconsin by National Electrostatics Corp., can generate voltages as high as 5 million volts and can accelerate a wide range of different beams for use on various experiments of interest to researchers from Notre Dame’s Nuclear Science Laboratory.

The department includes five faculty members, a research staff of about 20 and an average of 25 graduate students.

The accelerator will be used primarily to expand the research program at the University’s Joint Institute for Nuclear Astrophysics, which Wiescher directs, and Institute for Structure and Nuclear Astrophysics.

The accelerator will provide beams to the St. George Recoil Separator, installed last year, that can find a single particle created by an alpha capture reaction from 1,015 beam particles. The University’s nuclear astrophysics program, started in the mid-1980s, is one of the leading global centers, attracting user groups from 20 to 30 countries.

The new accelerator will help scientists gain a better understanding of how the universe works, says **Ed Stech**, associate professional specialist in physics. “It’s basic physics research—and we’re one of the few university-based labs like this left. Our students are trained to go into industry, academia and the national labs.”

Testing of the accelerator has begun, and initial experiments will be conducted over the summer.



The new particle accelerator, shown here being lifted into position on top of Nieuwland Hall of Science, is 21 feet tall, about eight feet in diameter and weighs nearly 18,000 pounds.



Postdoc Dan Robertson and graduate student Stephanie Lyons work on the final cleaning of the hoops inside the accelerator, in preparation for closing the tank. Air will be pumped out and the tank filled with sulfur hexafluoride (SF_6), an inert gas that will allow the maintenance of a stable 5 million volts.



The accelerator will generate electrical potentials up to 5 million volts. Then a gas is ionized in the terminal by removing electrons, resulting in a +2 or +3 charge state. “Since like charges repel each other, ions are accelerated out of the terminal and toward the magnet,” says Ed Stech, associate professional specialist.



The accelerator tank, in position in the basement of Nieuwland. The tank itself is about 21 feet tall, but the tower rises approximately 40 feet above the existing roof of Nieuwland Science Hall.

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NEWS BRIEFS

RELAY FOR LIFE: FIGHTIN' IRISH FIGHTIN' CANCER

Notre Dame's eighth annual **Relay for Life** takes place Friday, April 27, with opening ceremonies at 6 p.m., the Luminaria Ceremony at 9:30 p.m. and closing ceremonies at 8 a.m. Saturday.



Dave Prentkowski, director of Notre Dame Food Services, will be honored at this year's event for his commitment to both leading his team and

helping others who have been diagnosed with cancer, even as he undergoes his own treatment for pancreatic cancer.

Since Notre Dame began hosting Relay for Life on campus, volunteers have raised \$676,000 for the American Cancer Society (ACS). The ACS has awarded Notre Dame faculty with 11 grants, totaling more than \$3.6 million in funding, to conduct research with the hope of finding a cure for cancer.

supports a group of eight charities around the world—including the Holy Cross Missions, Holy Cross in Bangladesh and Oxfam. The charity supports projects that have substantial local impact—a women's dairy cooperative, for example, says coordinator **Stephen Hayes**, the Entrepreneurial Spirit Endowed Business Librarian in the Mendoza College of Business.

BEIRNE NAMED OUTSTANDING GENERAL MANAGER OF THE YEAR

Bill Beirne, director of the Morris Inn, has been named



Beirne

the Indiana Hotel and Lodging Association's 2012 Outstanding General Manager of the Year. The association gives the award annually to a hotelier who demonstrates superior professionalism and takes a leadership role in the industry. The award was presented to Beirne at the Feb. 29 Stars of the Industry Banquet in Indianapolis. Beirne, who joined the University in 1988, is currently president of the St. Joseph County Hotel-Motel Association and serves on the Board of Directors of the St. Joseph County Chamber of Commerce.

NOTRE DAME MBA RANKS IN U.S. NEWS TOP 25 BUSINESS SCHOOLS

The **Notre Dame MBA program** jumped 12 slots to earn a No. 25 ranking in the U.S. News & World Report 2013 survey of "Best Graduate Schools."

The Notre Dame MBA, located in the Mendoza College of Business, was noted by the publication as one of the "most improved" schools in the ranking for moving from a tie for 37th to the 25th rating, which it shares with four other schools.

Holy Cross Harvest raises more than \$15,000

A donation of \$15,383 and more than 2,000 pounds of food were presented to the Food Bank of Northern Indiana Monday, March 12, at Mason Services Center. The second annual Holy Cross Harvest took place between Jan. 23 and Feb. 14. "The drive was a fantastic success," says **Anne Kolaczyk**, senior technical training professional in OIT and chair of Notre Dame's drive. "We're happy to be making a difference in our community." Three institutions, Notre Dame, Saint Mary's College and Holy Cross College, participated.



From left, Food Bank of Northern Indiana Executive Director Milton "Milt" Lee; Anne Kolaczyk, OIT senior technical training specialist, who chaired the drive; Patricia Adams, director of community engagement at Holy Cross College; Charlie Thompson, executive director of St. Vincent de Paul of St. Joseph County; and Gwen O'Brien, director of media relations for Saint Mary's College.

THIRD WORLD RELIEF FUND

Faculty and exempt staff will receive a mailer in mid-April for the Third World Relief Fund, the 37-year-old campus charity that

OIT launches new website

The Office of Information Technologies (OIT) launched a new website March 13, featuring updated content and a design that meets the new University branding standards.

"We redesigned the OIT web site so we could help people more easily find technology service solutions and answers to their questions," says **Ron Kraemer**, vice president of Information Technologies and chief information officer.

The Marketing Communications Web Group partnered with the OIT Website Redesign team to provide research and benchmarking, and helped to set a new direction for the website. The content was thoroughly reviewed and reorganized to be more customer oriented rather than service oriented.

"Our goal was to implement a more straightforward design and add features to make the site more useful," says Kraemer. "We are committed to continually making improvements based on input from those who visit the site."

In addition to the new look, user-friendly navigation and reorganized content, one of the biggest accomplishments of this project is that the website went from a total of 4,100 pages to about 350 pages. You can visit the new OIT website at: oit.nd.edu.



UNIVERSITY OF NOTRE DAME

MANAGING EDITOR
Carol C. Bradley

CONTRIBUTING WRITER
Colleen O'Connor

GRAPHIC DESIGNER
Kristina R. Craig,
Kreative Koncepts

COPY EDITORS
Brittany Collins
Jennifer Laiber

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Submit story ideas, questions and comments to ndworks@nd.edu or contact Carol C. Bradley, 631-0445 or bradley.7@nd.edu.

THE FACES BEHIND THE VOICES

The OIT Help Desk (631-8111) supports faculty, staff and students in the use of IT services and applications. Located in 128 DeBartolo Hall, the office has 11 staffers and another 10 student workers who handle more than 3,700 contacts per month.

Front row, left to right: Stacey Reed, Pamela Miller, Denise Moser, Lauren Freda, Jessica Brubaker Horst

Back row: Ben Allen, Nick Page, Matt Metzger, Peter Metzger, Matt Pollard, Scott Lamb



NEWS BRIEFS

BRENNECKE ELECTED TO NATIONAL ACADEMY OF ENGINEERING

Joan F. Brennecke, the Keating-Crawford Professor of Chemical and Biomolecular Engineering, has been elected a member of the National Academy of Engineering (NAE) for her innovation in the use of ionic liquids and supercritical fluids for environmentally benign chemical



PHOTO PROVIDED

Brennecke

processing. Election to NAE is among the highest professional distinctions accorded to an engineer.

Brennecke, who also serves as director of the Center for Sustainable Energy at Notre Dame, is internationally known for her research in the development of solvents, specifically supercritical fluids and ionic liquids, for specific applications. Her research interests include supercritical fluid technology, ionic liquids, thermodynamics, environmentally benign chemical processing, and carbon dioxide separation and use.

IN MEMORIAM: SOCIOLOGIST C. LINCOLN JOHNSON

The campus community is saddened by the loss of **C. Lincoln Johnson**, 70, associate professor of sociology emeritus, who died March 1. A specialist in statistical methods and social psychology, Johnson was particularly interested in the effects of globalization on the world's food supply. In addition to teaching a popular course on that subject, "Global Food Systems: The Sociology of Food," he served for 14 years as director of Notre Dame's Laboratory for Social Research and directed the computer applications program for the College of Arts and Letters. Contributions in Johnson's memory may be sent to the Center for Social Concerns, Relief for World Hunger, Geddes Hall.

\$6 MILLION SCHOLARSHIP GIFT

The College of Engineering has announced a \$6 million gift from the Fotsch family, to establish the **William E. Fotsch Family Undergraduate Scholarship in Engineering**.

"This is by far the largest scholarship gift for engineering students in the history of Notre Dame," says **Peter Kilpatrick**, the Matthew H. McCloskey Dean of the College of Engineering. "The Fotsch family's generosity will enable numerous aspiring young engineers to attend Notre Dame, undeterred by finances."

The Fotsch Family Scholarship addresses the University's most enduring funding priority: two of every three applicants for admission to Notre Dame now seek financial assistance.

New paper examines issues raised by Fukushima reactor accident

Studies will be essential to reduce risks of reliance on nuclear energy

BY BILL GILROY, PUBLIC RELATIONS

On the first anniversary of the Fukushima Daiichi reactor accident in Japan, a new paper by **Peter C. Burns**, Henry Massman Professor of Civil Engineering and Geological Sciences, and colleagues from the University of Michigan and the University of California, Davis, stresses that we need much more knowledge about how nuclear fuel interacts with the environment during and after an accident.

In the paper, which appeared in the March 9 edition of the journal *Science*, Burns, Rodney C. Ewing of the University of Michigan and Alexandra Navrotsky of the University of California, Davis, call for increased research to help develop predictive models for future nuclear accidents.

A 9.0-magnitude earthquake near Japan on March 11, 2011, triggered a tsunami that wiped out coastal towns, shut roads, severed communications and claimed thousands of lives. It also cut off all electricity to the Fukushima Daiichi nuclear power station, setting the stage for a series of explosions that released large quantities of radioactive substances into the surrounding environment.

"Reactors are designed to high

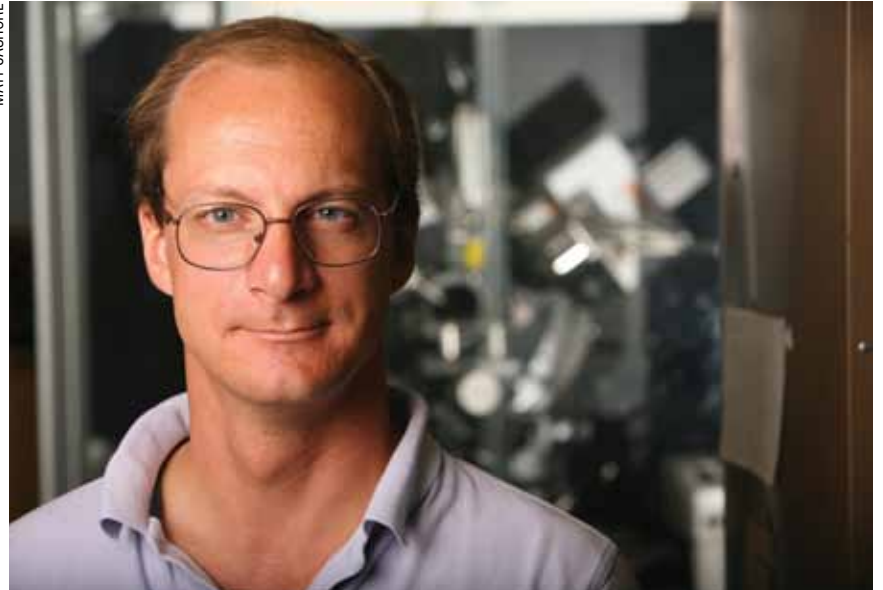
safety standards, but on the anniversary of the accidents in Fukushima we are reminded that the forces of nature can produce unlikely events that can overcome the safety margins built into the reactor designs," Burns says. "A reactor core meltdown releases radioactive material from the fuel. If containment systems fail, as they did at Fukushima, radioactive material is then released into the environment."

Burns, Ewing and Navrotsky point out in their paper that accurate fundamental models for the prediction of release rates of radionuclides from damaged fuel, especially in contact with water, after an accident are limited.

"At Fukushima, a large amount of radioactive material was released when seawater was pumped onto the reactor cores that later leaked into the ocean and groundwater," Burns said. "Little is known about how radioactive fuel in a reactor accident interacts with water and releases radioactive material. This paper examines what is known, points to serious shortcomings in our understanding, and proposes a course of research to address the problem."

Although some of the needed research can be conducted using simulated core-melt events with fuel

MATT CASHORE



Burns

analogues that contain nonradioactive isotopes, Burns and his colleagues point out that some of the studies will need to be done with radioactive materials. Although such studies are both difficult and expensive, Burns points out that they are essential to reduce the risk associated with increasing reliance on nuclear energy.

"Nuclear power reactors, of which there are currently 440 operating worldwide, provide about 16 percent of the world's electricity," he said. "They also produce extremely radioactive used fuel."

"A growing reliance on nuclear energy in the world over the coming decades will make serious reactor accidents more likely, although they

will remain rare events. To better protect humanity when accidents do occur, we need a much improved understanding of how water interacts with damaged fuel, and how the radioactive material is released and transported in water."

The research described in the *Science* paper was conducted under the auspices of Notre Dame's Energy Frontier Research Center, a U.S. Department of Energy-funded initiative established to pursue advanced scientific research on energy. Burns serves as director of the center.

Engineering students build hope through bridge construction

Helping residents of impoverished countries

BY BILL GILROY, PUBLIC RELATIONS

"Building Bridges, Building Hope" is the motto of an innovative program in the College of Engineering that enables undergraduate students to use the knowledge they have gained to benefit residents of impoverished countries.

Now in its third year of operation, ND SEED (Notre Dame Students Empowering through Engineering Development) connects rural communities stricken with poverty to greater opportunities through cooperative design and construction of footbridges that span otherwise impassible rivers. **Tracy L. Kijewski-Correa**, associate professor and Leo and Patti Ruth Linbeck College Chair in the Department of Civil Engineering and Geological Sciences, serves as adviser for the program.

This year's project is centered on San Francisco, a river crossing north of the city of Esteli, Nicaragua. The crossing serves seven communities with a population of roughly 1,000. During the rainy season, the river runs deep and swift, making the crossing nearly impassible.

As a result, villagers are denied access to marketplaces, health care and schooling for their children. The aim of this year's ND SEED undertaking is to construct a bridge crossing the river.

The process began during the University's fall break last year when the engineering students participating in the project made a site visit to San Francisco, Nicaragua. The visit occurred during especially heavy rains, and the students discovered that the community where they will build the bridge was isolated for a week from food, medicine and other necessities.

The students were able to meet with the mayor of San Francisco and gained his assurance that members of the local community would assist in the construction of the bridge, which is one of the goals of the program. The group was also able to locate local sources for the bulk of materials needed for the bridge building effort.

During the current spring semester, the students are concentrating on raising the funds necessary to complete the project. It takes an estimated \$20,000 to construct the ND SEED bridges, and although there is a support structure within Notre Dame among interested faculty and administrators, the team members must raise the necessary funds themselves.

Immediately following final exams at Notre Dame, the ND SEED group will depart for San Francisco and spend the next six weeks

PHOTO PROVIDED



constructing the bridge. They will work alongside the villagers, putting in 12-hour days and sleeping under mosquito netting at night.

The project will require students to overcome several unique engineering challenges. The river does not have steep banks, so high towers will need to be built on each bank to keep the deck of the bridge above the level waters at the highest flood stage. Also, walls will need to be

constructed to prevent erosion and protect the towers.

ND SEED was formed in partnership with the nonprofit organization Bridges to Prosperity, a volunteer-based charity that seeks to empower poor, rural African, Asian and Latin American communities through footbridge building.

Those wishing to support ND SEED can visit ndseed.nd.edu.

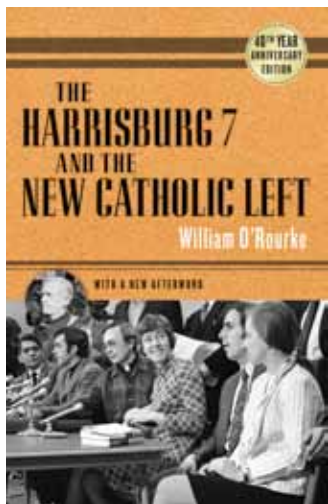
The Harrisburg 7 and the New Catholic Left

Book re-issued on
40th anniversary

BY MICHAEL O. GARVEY,
PUBLIC RELATIONS

“Looking back at a book about a trial 40 years after the fact is opening a time capsule of sorts,” writes **William O’Rourke** in the preface to a new edition of his book, “The Harrisburg 7 and the New Catholic Left.”

Recently published by the University of Notre Dame Press, the 40th anniversary edition of O’Rourke’s book does indeed have something of the antique and curious about it, concerning as it does, a trial in which the federal government was arraiging seven fierce opponents of the Vietnam War for conspiring to raid government offices, bomb Washington’s infrastructures and kidnap President Richard Nixon’s adviser, Henry Kissinger. Six of the seven were resigned or active Catholic



priests and nuns.

Although the 1972 trial of these exotic outlaws ended in a hung jury, and the radical “conspirators” it made notorious—most notably Philip Berrigan and Elizabeth McAlister—eventually resumed considerably less incendiary forms of antiwar activism,

it was the high-water mark of what O’Rourke and others were then calling “the new Catholic Left.”

Regarding the trial, its characters and its atmosphere from an ironic distance and reporting it in arch prose, O’Rourke provides a vivid impression not only of what he calls, in an afterword to the book’s new edition, “the biggest thing happening in the states” but also of the time and culture in which the trial took place. It is worth noting that “The Harrisburg 7” remained on the New York Times 1972 “new and recommended” list for six weeks after its first publication. O’Rourke’s time capsule simile is apt.

The government’s case was slapdash, based on the testimony of questionable witnesses and some murky ruminations recorded in intercepted correspondence between Berrigan and McAlister and heavily influenced by the senescent paranoia of FBI director J. Edgar Hoover, who would die only a few weeks

after the inconclusive trial. Before the trial Hoover had given ominous congressional testimony about the “incipient plot on the part of an anarchist group...of Catholic priests and nuns, teachers, students and former students” to terrorize the government into ending the bombing of Southeast Asia and the nation into a reassessment of the war.

Although the conspirators’ plot was partially successful, in that Hoover’s obsession with it (O’Rourke believes the legendary G-man “should be listed as a co-conspirator”) publicized their cause beyond anyone’s wildest dreams, “the government actually won the trial, accomplishing what it wanted to do, by toppling the Catholic Left from its pillar of moral superiority.”

David Black, in an early review of the new edition of O’Rourke’s book, praises it as “a classic of trial reporting, an account even 40 years later that is still pertinent to our situation.”

As if in ironic illustration of that point, early last month, as the new edition of “The Harrisburg 7” appeared, the current president of the United States addressed the National Prayer Breakfast. He had high praise for Dorothy Day, the anarchist Catholic matriarch (who had inspired the Harrisburg defendants) as one of the “great reformers in American history (who) did their work not just because it was sound policy, or they had done good analysis, or understood how to exercise good politics, but because their faith and their values dictated it, and called for bold action—sometimes in the face of indifference, sometimes in the face of resistance.”

Thus spoke President Barack Obama, chief executive of a federal government now, as 40 years ago, in excruciating adversity with another unruly, outspoken, disobedient and potentially dangerous “conspiracy” of Catholics, including not a few bishops.

Record attendance at TRiO Student and Parent Leadership Conference



PHOTO PROVIDED

who is a Learning and Organizational Development Consultant in Human Resources at Notre Dame; **Scott Jackson**, executive director of Shakespeare at Notre Dame; and **Bianca Tirado**, who works in the Department of Africana Studies and heads the Black Faculty and Staff Association at Notre Dame, were among the workshop leaders.

Workshop topics included budgeting, overcoming obstacles, technology, communication, leadership, family cooperation, how to become a police officer, careers in business,

health, and world issues such as hunger, poverty, pollution and disease.

Visitors came from Governor’s State in Illinois, Indiana University-Purdue University Fort Wayne, Indiana Wesleyan University and the Robinson Community Learning Center.

Notre Dame’s Upward Bound program, started in 1976, became a national prototype and has helped more than 2,000 local students enroll in post-secondary schools after high school graduation. Talent Search, which came to Notre Dame in 1980, serves more than 800 students a year in 15 target high school and middle schools in South Bend.

South Bend Mayor Pete Buttigieg, who welcomed the group, pointed out that his campaign’s volunteer and community outreach coordinator Cordell Martin is an Upward Bound graduate. “Education is the fuel for the engine of social mobility,” Buttigieg said. “The American Dream pretty much depends on you.”

investment in the future of our region and the future of our country. Our world has been evolving at such a rapid pace that our skill set as 21st-century global citizens must be broad and must be diverse.”

Stephen Ponzillo, director of TRiO at Notre Dame and master of ceremonies at the event, in a welcome letter to participants in the conference program said, “We’re living in a world of constant change, which seems to accelerate more rapidly by the day. More than ever, it is incumbent upon all of us to open our eyes, pay attention and acquire the knowledge we need to make a positive and lasting difference in the world.”

More than 20 University, community and business leaders, including some TRiO graduates, led workshops at the event, along with six high school students now in Upward Bound and a group of 15 Robotics presenters from the Purdue Calumet TRiO Upward Bound.

Alyssia Coates, director of the Office of Pre-College Programs with Undergraduate Enrollment; **LaTonia Ferguson**, a TRiO graduate

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Group welcomed by South Bend mayor Pete Buttigieg

BY GENE STOWE, FOR NDWORKS

The Notre Dame TRiO Programs’ 10th Annual Student and Parent Leadership Conference drew more than 370 people to South Bend’s Century Center, a record attendance boosted by participants from other Midwestern programs. The event took place on Feb. 25, declared National TRiO Day by Congress.

TRiO names a set of federal programs, including Upward Bound, Talent Search and Student Support Services launched in the 1960s, along with programs added later to focus on veterans, adult education, postgraduate education, and math and science. The programs aim to boost education opportunities for low-income people and those who would be the first in their family to attend college.

“It represents an investment in not just the future of your own aspirations and hopes,” keynote speaker **Rev. Dr. Hugh Page Jr.** told the group. “It represents an

Professional development program for graduate students has ‘wonderful momentum’

Strength is in unified,
cohesive approach

BY KEVIN ZEISE,
GRADUATE SCHOOL

When **Greg Sterling** was named the Dean of the Graduate School in June 2008, he set about creating a holistic approach to graduate education, with a key component being the creation of a professional development program.

Over the past three years, the Graduate School’s professional development program has made tremendous strides and is now viewed by other universities around the country as a model for how a broad-based program can become a key part of a student’s graduate experience, says **Laura Carlson**, professor of psychology and associate dean of professional development.

The program—developed by a cross-disciplinary team comprising members from the Graduate School, Hesburgh Libraries, the Career Center, the Kaneb Center, the Writing Center and the Graduate Student Union—emphasizes four “spires” of professional development: research, teaching, career and ethics.

The program has achieved wonderful momentum, says Carlson.

In the fall of 2011, more than 1,100 students attended 54 professional development workshops. Last year, graduate students brought in more than \$1.5 million in grants and fellowships. In 2011-2012, students have submitted 268 grant and fellowship applications, a 33 percent increase in submissions over 2010-2011.

The number of graduate student consultations at the Career Center has more than doubled since December 2010, notes Carlson, with 138 students in fall 2011 alone. Seventeen companies held information and interview sessions for graduate students in fall 2011.

Recent professional development events include “Developing your

Research Spiel,” which gives students training in formulating a two-minute, broadly accessible pitch about their research—with an opportunity to practice with faculty members and each other in a cocktail party environment.

A “Dissertation Boot Camp” was offered during spring break, and an “etiquette dinner” helped prepare students for onsite interviews. A complete calendar of events appears on the professional development website, graduateschool.nd.edu/professional_development.



MIATT CASHORE

Carlson

In addition, a number of supplemental materials have been created to aid students in tracking their own development progress.

An activities checklist illustrates the recommended types of workshops for students, based upon the four spires and the phase of their academic career. A roadmap of transferrable skills highlights how skills acquired during the professional development process will translate to future careers, whether that path takes students toward government, academia, not-for-profit enterprises or private industry.

“This tremendous success is attributable to the collaborations we have fostered across campus, as reflected in our professional development team and our contacts with the directors of graduate studies at the department level and associate deans at the college level,” says Carlson. “Our key strength is our unified and cohesive approach, and this distinguishes us from other professional development programs.”

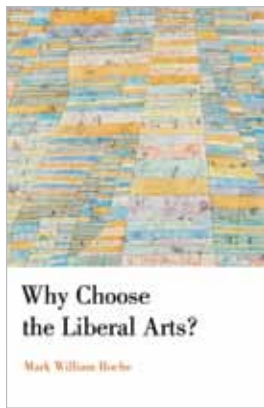
Passionate about value of a liberal arts education

Award-winning book aims to change perceptions

BY CAROL C. BRADLEY, NDWORKS

Mark W. Roche's recent book "Why Choose the Liberal Arts?" argues for the essential importance of a liberal arts education—beyond the practical value of a degree as the gateway to employment after graduation.

The Association of American Colleges and Universities recently named Roche, the Rev. Edmund P. Joyce, C.S.C., professor of German Language and Literature and former dean of the College of Arts and Letters, the winner of the 2012 Frederic W. Ness Book Award.



The Ness award is given to the book that best illuminates the goals and practices of a contemporary liberal education. The book is already in its third printing.

"I wrote the book because I was concerned about the perception among students—and parents—that you have to major in something practical to get a job," he says. "As dean, 'What can my child do with a major in philosophy?' was a question I received every year at Junior Parents Weekend. I wanted to make the case

to both students and parents that a liberal arts education is superb preparation for a career in any number of fields, including business."

In their post-graduation jobs, liberal arts majors draw upon a wide range of skills, he notes. "The more you move upward, the more you need to be able to learn about new areas,

ask probing questions, sift data and use critical thinking to solve complex problems. The most sought-after capacity is communication skills. Study what you love, and you will still be able to get a job."

But at the same time, Roche argues, education shouldn't be reduced to just its practical value. "If we reduce the purpose of education to that of getting a job, we have failed to adorn it with higher meaning. Even more than awakening a deeper meaning in work, a liberal arts education gives graduates a direction for life."

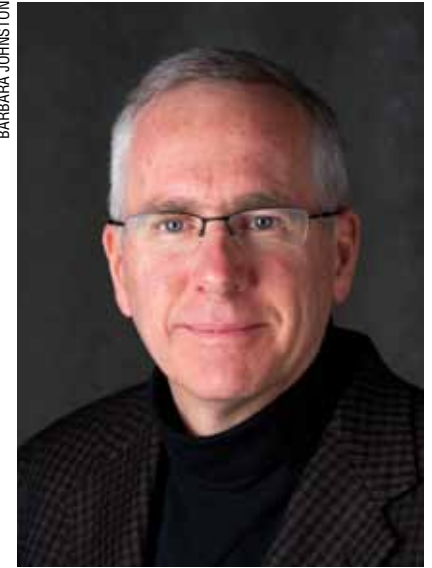
There are three partly overlapping grounds for a strong liberal arts education, Roche says: first the sheer joy of learning for its own sake—asking the great questions that give meaning to life; second, the cultivation of the intellectual virtues necessary for success in life; third, character formation and the development of a sense of vocation—a connection to a higher purpose or calling. A great liberal arts education, he says, produces not only

educated people but also good people, with a sense of mission.

Finding a vocation begins with great questions—Who am I? What ought I to do with my life? Through the study of such questions, Roche says, liberal arts students develop skills in reading, writing, speaking and critical thinking—skills that will allow them to flourish in whatever career paths they choose.

For the cover of the book he chose a painting by Paul Klee, titled "Highways and Byways," created in 1929. "I picked it because all roads lead to a blue horizon—whether you go by the straight path or you get there by byways. I want students to spread their wings. The most important thing in the liberal arts is the capacity to continue to learn."

"Why Choose the Liberal Arts" is both a book that captures the essence of a Notre Dame education and a book that transcends Notre Dame,



Roche

Roche adds.

"We shouldn't be embarrassed that college is separate from everyday life. At the university, we have a reason to elevate knowledge for its own sake. We are unabashed about saying that we help students develop values and virtues. We believe students should be searching for a higher meaning and purpose in life. What we do at a Catholic university is exciting for anyone."

Michael Graves named 2012 Driehaus Prize laureate

Driehaus Patronage Award given to Charles, Prince of Wales in London ceremony

BY CAROL C. BRADLEY, NDWORKS

Michael Graves, whose celebrated career redefined the architect's role in society, has been named the recipient of the 2012 Richard H. Driehaus Prize at the University of Notre Dame.

Graves, the 10th Driehaus Prize laureate, will receive \$200,000 and a bronze miniature of the Choregic Monument of Lysikrates during a March 24 ceremony in Chicago.

"Michael Graves is not a classicist, but he opened the door for a lot of us," says Michael N. Lykoudis, Francis and Kathleen Rooney Dean of Architecture. "Graves gave public buildings dignity again. He celebrated the art of drawing, something difficult to come by in modern architectural training. His contributions to the field have been immense.

"He has enhanced not just the architecture profession with his talent and scholarship, but everyday life itself through his inspiring attention to beautiful and accessible design."

Graves is Founding Principal of the firm Michael Graves & Associates and the Robert Schirmer Professor of Architecture, Emeritus at Princeton University, where he taught for 39 years.

Graves received the Rome Prize in 1960 as a scholar at the American Academy in Rome, where he is now a trustee. Graves was influenced by "the timeless grammar" of



Michael N. Lykoudis (at left), dean of the School of Architecture, Richard H. Driehaus and His Royal Highness Charles, Prince of Wales, admire the bronze miniature of the Tower of the Winds presented to the Prince in January.

architecture that he has since applied to his own work. Members of the Driehaus Prize jury commended his commitment to the traditional city—in its human scale, complexity and vitality—as emblematic of a time-tested sustainability.

To mark the 10th year of the Driehaus Prize, through the generosity of Richard H. Driehaus, a special one-time award, **The Richard H. Driehaus Prize at the University of Notre Dame Patronage Award**, was presented to His Royal Highness Charles, Prince of Wales, during a ceremony Jan. 27 at St. James's Palace in London.

Prince Charles was chosen as a recipient "because of his patronage of the values our school represents," says Lykoudis. "We couldn't think of anyone more appropriate. Early on he was derided for his views. But he has stayed fast, and the world has come around. It was appropriate to give him this recognition, to honor

the values he stands for."

The Prince is a forceful advocate for the maintenance of traditional building skills and sustainable urban design, and is keenly interested in how the built environment affects the quality of people's lives.

He received a bronze miniature of the Tower of the Winds (an octagonal Pentelic marble clock tower on the Roman agora in Athens), and donated the \$150,000 prize to his organization, The Prince's Foundation for Building Community, to establish an undergraduate diploma course in sustainability and the building arts, as part of the charity's building-skill program. "It is an element of education that I've long been desperate for my foundation to re-introduce," Prince Charles said at the ceremony, "and I'm thrilled that, thanks to the incredible kindness of the Driehaus Foundation, it will be able to do so."



CAROL C. BRADLEY

WHY CHOOSE LIBERAL ARTS?

MUSIC MAJOR AND FUTURE MEDICAL STUDENT

Lee Haggenjos arrived at Notre Dame as a freshman knowing he wanted to major in music—and intending to go to medical school.

Haggenjos, who graduates in May, grew up in Portland, Ind., near Muncie. "I started playing guitar at 5," he says. "I knew going forward I wanted to get a more formal education in music history and music theory."

So while taking the science classes necessary to prepare for medical school, he majored in guitar. "I wanted something to force me to work hard at improving quickly. With an instructor and classes, you learn an instrument much more quickly than on your own."

Haggenjos has already received offers from five medical schools and is waiting to hear from two more. He plans to enter a field of medicine with patient contact—primary care, pediatrics or internal medicine.

While the skills he's acquired as a guitar major may not be directly transferrable to medicine, "The fact that you're a music major sets you apart," he says.

"College is important preparation for the job market, but it's not a technical school. Choosing a major from the point of view of what you think your future career will be is not the best way to choose. College is formative for critical thinking skills, creative thinking skills and breadth of knowledge."

SERVICE ANNIVERSARIES

The University congratulates those employees who celebrate significant anniversaries in March, including 35-year employee **Dennis D. Freeman**, Utilities.

30 years

Tamara R. Springer, Mendoza College of Business
Marilyn K. Walker, aerospace and mechanical engineering

15 years

Susan A. Antonovitz, Academic and Administrative Services
Annie K. Geary, principal gifts
Wade E. Stoller, Service Center

25 years

Keith A. Bruce, Maintenance Repairs
Ana Laskowski and **Sandra K. Tompkins**, Custodial Services
Kathy L. Reeves, General Services

10 years

Monica Crabtree, Hesburgh Libraries
John A. Foster, Golf Course Administration
Althea Price, management
Angela Yugo, Pre-College Programs

20 years

Claude J. Devaney, Academic and Administrative Services
Brenda L. Young, Custodial Services

NEW EMPLOYEES

The University welcomes the following employees who began work in **January** and **February**:

Sophia Ambriz Garcilazo,

Cori A. Hunt, **Kathleen Long** and **Susan Webb**, Custodial Services

Angela A. Ashenfelter, Athletic Events

Jessica L. Baron, Reilly Center

Jacquelyn O. Cascarano, Law School Career Development Office

Joseph Casey, Alliance for Catholic Education

Laurie Cayia, **Erin Jones**, **Patrick Kaiser**, **Maurcia Marschke** and **Sharon A. Rankert**, Development

Tarrez Clark, **Lee Purdy**, **Andrew Schmidt** and **Julia A. Schneider**, Hesburgh Libraries

Eric Cruz, Keenan Hall

Amber Dalton, University Health Services

Jason M. Dewispeleare, Risk Management and Safety

Sidney K. D'Mello, psychology

Lesley-Anne Dyer, financial aid

Robert J. Elliott, **Harry K. Hiestand**, **Joshua J. Reardon** and **Hugh P. Welsh**, football

Corresta A. Fuchs, **Michael J. Kasalo** and **Clifford Thompson**, Building Services

Cynthia L. Fuja, **Rebecca Hackett**, **Kathleen Miller** and **Beata Nabrzyaska**, Office of Research

David Ganz, Medieval Institute
Meenu Garg, civil engineering and geological sciences

Daniel S. Gebhard, Joyce Center
Ruilan Guo, chemical and biomolecular engineering

Jared Hendrickson and **Jennifer E. Terlep**, Customer Support Services

Anthony J. Hoffman, electrical engineering

Ken F. Hughes, computer science and engineering

Alicia M. Ivy and **Laura Picking**, Department of Human Resources

Samuel James, utilities

Susanne Kaul, German and Russian languages and literature

Karen M. Kennedy, Student Affairs

Nathan A. Konopinski, Genomics, Disease Ecology and Global Health Initiative

Jason J. Lamb, men's lacrosse

Melissa K. Little, Office of Budget and Planning

Tengfei Luo, aerospace and mechanical engineering

Congcong Ma, East Asian languages and cultures

Joseph Malicki, preventive maintenance

Andres Martinez and **Heather R. Rodriguez**, Strategic Academic Planning Committee Projects

William G. McKenney, Office of Housing

Balazs M. Mezei, Nanovic Institute

Giuliano Milani, Romance languages and literatures

Branden L. Morris, St. Michael's Laundry

Jessica L. Parson, psychology

Lee Purdy and **Julia A. Schneider**, Hesburgh Libraries

Benoit Raybaud, Center for Research Computing

Jose T. Rivas Palma, art, art history, and design

Jennifer N. Schlabach, Rockne Memorial Building

Michael Segal, theology

Elton Skendaj, Kroc Institute

Jim Small, marketing and communications

Janet L. Weikel, physics

Cathy Windaett, corporate relations

Daniel Yun, Army ROTC

A job that, when done well, goes unnoticed

BY GENE STOWE,
FOR NDWORKS

Clean living at Notre Dame has gotten easier.

Recent equipment upgrades have cut carpet-cleaning time in half and tile-stripping time to one-tenth, without any chemicals.

Jeff Ederly, who became assistant director of Building Services early last year, collaborated with front-line cleaners **Mike Crabtree**, **John Pride**, **Virjilio "Ve" Echevarria** and **Terry Tubicsak**, most with a decade's experience, to chart a new course.

"We're always being asked to do more with less. Technology is usually the game changer," says Ederly.

Support for the transformation came from **Shannon Cullinan**, associate vice president for campus services; **Valerie RiChard**, director of facilities, building and landscape services; **Chris Hatfield**, associate director of building services; and supervisor **Dawn Bell**.

A machine that uses vibration and high-pressure water for stripping replaced noxious chemicals, a process far more friendly both to the workers and to the environment and gets the job done in one-tenth the time.

"We took a process that required a mop bucket, a side-by-side, a wet-vac, another mop bucket to rinse—we took four pieces of equipment down to one and increased their productivity at least times 10," Ederly says.

Modern walk-behind or ride-on equipment replaced cumbersome truck-based hoses for carpet cleaning. A building that took seven hours to clean now takes 3½ hours.

Last fall break, the workers managed to clean the hall and public area carpets on nearly all the floors of all 29 dorms. In the past, they reached only the first floor on short breaks.

Dorms are cleaned four times a year—fall, semester, spring and summer breaks—and academic

buildings are cleaned twice a year.

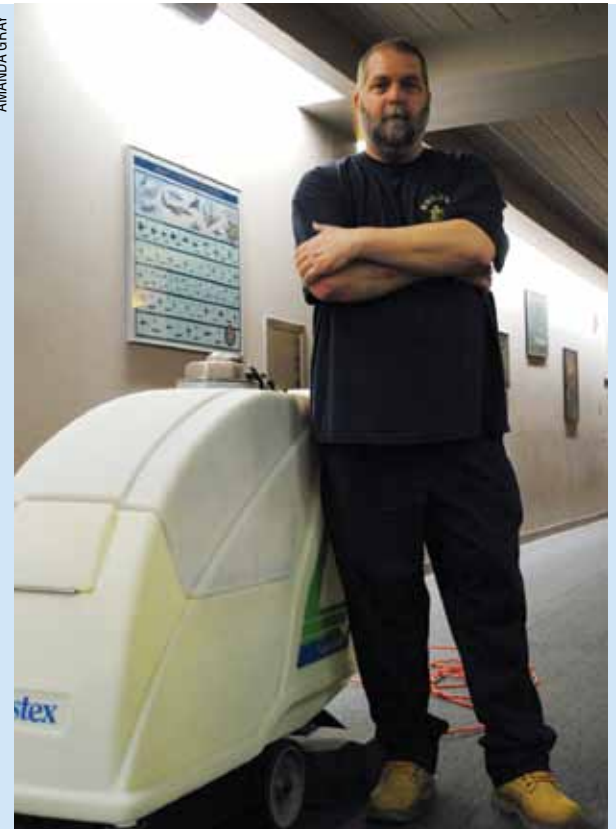
The dorms have some 300,000 square feet of carpeting. The scheduled deep cleaning comes in addition to on-call spot cleaning.

"We get work orders every day," Bell says. "They spill coffee or juice. The winter is really hard on the carpeting. During football season we

get a lot of carpet requests."

The crew also does windows, although the cleaning of upper-floor outside windows is outsourced.

Officials are considering new ride-on equipment that would clean 20,000 square feet of carpet in an hour, a process that currently takes eight hours.



AMANDA GRAY

HE GETS TO EVERY BUILDING ON CAMPUS

John Pride's first assignment as a carpet cleaner for Notre Dame in 2007 was Carroll Hall in the summer, with temperatures more than 100 degrees in the dorm as he dragged 25-foot hoses from floor to floor.

"I thought I was going to pass out," he recalls. "But I got it done. I had to get it done. There's a schedule."

He takes pride in cleaning up after students, faculty and staff, a task that goes unnoticed when it's done well.

Pride knows the inside of all Notre Dame's buildings, even off-campus sites such as the Center for Children and Families on Ironwood Drive. "Every building on campus, I eventually get to. It's just like a wheel," he says. "We keep going around and around."



MATT CASHORE

NOTRE DAME EXTENDED RESEARCH COMMUNITY

Local teachers attended the fifth Notre Dame extended Research Community (NDeRC) Collaborating for Education and Research Forum in Jordan Hall in late February. The forum is designed to enhance science, technology, engineering and math education in their classrooms.

The battle of her life

Cancer discovered thanks to the Mammogram Van

BY BRITTANY COLLINS, NDWORKS

There's a homemade sign hanging over her computer, a block of wood with a ribbon attached. "Riding for Monica."

Monica Hoban keeps it there to remember the kindness and support she received while she fought one of the hardest battles of her life.

In October 2010, Hoban, administrative assistant in the Faculty Senate, decided to visit the Saint Joseph Regional Medical Center mobile unit that's brought to campus annually.

"I needed to have a mammogram, so I thought, 'Well, I think I'll give that a try,'" Hoban says.

"It was really easy. There were posters all over the place, I just called the number and set up an appointment. I was working in the Main Building at the time and I just took the shuttle over. By the time I was done, I just walked outside and there was the shuttle to take me back."

Not long afterward, Hoban found out she had breast cancer.

"There's a high occurrence of breast cancer in my family," she says. "Every female on my mother's side has had breast cancer."

Hoban, who has been getting mammograms regularly since she was 35, had three tumors.

"I ended up having to have a mastectomy. I had another test done because of my age—I'm young and premenopausal—and it came back high. I went through chemo but didn't have radiation." Between December 2010 and December 2012, Hoban had four major surgeries.

She found a network of support and encouragement from her co-workers at Notre Dame. "I couldn't have been in a better place," she says. "I was working in the Provost's Office. They said, 'Do what you have to do, take the time you need.'"

"The provost insisted I take his parking space, and then I saw that he

parked next to Father Jenkins," she says with a laugh. "And I said, 'No, I can't do this, my car is too dirty!'"

The sign above her desk was made for her by Greg Crawford, dean of the College of Science.

"Dean Crawford was my biggest cheerleader for this whole thing," she says. "One day he called me and he said, 'I want you to watch the news on Sunday.'" Hoban explains that Crawford participated in the inaugural 24-hour Spin-A-Thon for Pink Zone in January 2011. The sign, which has a personal inscription on

the back, was hanging on Crawford's stationary bike throughout the event. The Spin-A-Thon raised \$30,000 for Pink Zone, an initiative to raise funds for breast cancer research and awareness that culminates at an annual Notre Dame women's basketball game. WNDU covered the event and interviewed Crawford, who told them he was riding for Monica. He rode for all 24 hours.

"That meant a lot to me. He's always been there," she says.

Hoban, a committee member for the Pink Zone, is an active advocate of regular mammograms and self-exams.

"I cannot stress the importance of annual mammograms and self-exams," she says. "I have talked to many breast cancer survivors who found their lumps themselves, even after having a mammogram. For me, mine were not palpable, so mine were found during a routine mammogram. If it were not for that mammogram I had here on campus a year ago, my story today could be quite different. I might not even be here."

Of getting her exam at the mobile unit, Hoban says, "I thought it was so easy. I really thought it was. It's so easy to have it done here. You can have it done on a lunch hour. Less than a lunch hour."

In 2012, Hoban is cancer-free.

"Now it's all behind me. I had two major surgeries in December so I could start 2012 with a new outlook, a fresh outlook, and there's nothing that's going to stop me now."



Hoban
CAROL C. BRADLEY

Faculty members as mentors

Town-campus connection benefits both mentees and mentors

BY GENE STOWE, FOR NDWORKS

Two years ago, **Julia Douthwaite**, a professor of Romance languages and literatures, adapted her altered-book assignment for undergraduates so that the South Bend schoolgirl she mentors every week could create her own hardback book.

"I'm basically the production assistant and the illustrator," explains Douthwaite, who also writes promotional blurbs for the back cover. "She's the author. She's so thrilled that she's now the author of two books," both treasured Christmas gifts for the girl's mother.

Douthwaite and several other Notre Dame workers leave campus once a week to have lunch with a schoolchild, part of a South Bend Community Schools Corporation mentoring program that has more than 250 volunteers—and many more students hoping for the help.

It's a low-impact service for the volunteer, and a high-impact experience for the student, participants say.

"The goal is to be supportive, to provide encouragement," says **Gina**

Shropshire, assistant professional specialist in the Mendoza College of Business, who is chair of the Dream Team Mentoring advisory board. "Someone in the schools has identified that this student might need a little extra support in some area," such as reading, confidence building or just regular relationships.

"The commitment is to meet with your mentee once a week. It's a variety of activities. We can read, we can talk, we can talk about schoolwork, we can develop our own projects. We try to come in and provide a little stability."

She's big sister, cheerleader, teacher, friend and tutor all rolled into one, Shropshire says, and the relationship can endure through the child's schooling and beyond.

She started visiting a girl in third grade four years ago, and the connection, like the girl, has grown.

"In third grade we probably sat and did more reading," Shropshire recalls. "Now we sit and talk more. She's taller than I am now."

Alison Levey, academic adviser

For more information on the Dream Team Mentoring program, email partnerup@sbcsc.k12.in.us. Mentors receive an hourlong training session, and the school system performs a background check.



Douthwaite
MATT CASHORE

in the Mendoza College of Business, also participates in the program, as well as theology professor **Gerald McKenny**; **Peri Arnold**, professor of political science; and **Anita Rees**, associate director of the Career Center.

Douthwaite and Shropshire say it's an important campus-town connection that benefits both sides.

"It's a different perspective," Shropshire says. "You hear news about schools across the country. This brings it down to a one-on-one relationship. I see a lot of good things in the schools."

Douthwaite, whose children attended public schools, started visiting her student in third grade and sees the sixth-grader every Friday.

"The first year we played little games and read 'The Wizard of Oz,'" she says. "The second year I got involved in doing this altered book," pasting the girl's dictated story on the pages of a small hardback bought at a secondhand store.

"Every week when I would go to see her she would tell me a little bit more. I would take down what she said. We cover up the pages with her story. I type it and print it with different fonts and let her pick which fonts she wants."

About half her undergraduate students opt for the altered-book assignment instead of the final exam, Douthwaite says. For them, it involves choosing a book that relates to the topic and inserting other stories, illustrations and comments to make the material their own.

DRAMATIC IMPROVEMENTS IN HANDLING 1099 FORMS

The Controller's Office has made dramatic improvements in the amount of time necessary to process 1099 tax forms, with the help of the Office of Continuous Improvement (OCI), says Ed Verhamme, accounts payable manager. "It was a team effort," he says. A group of seven staffers, representing three different departments in the Controller's Office, partnered with OCI to develop more efficient processes.

Improvements in the way vendor names were entered into the Banner software, for example, resulted in a reduction of review hours from 195 in 2010 to 28 in 2011.



From left to right: Carol Grontkowski, Lindsay Stalcup, Mark Zeese, Joe Quinn, Becky Laskowski, Ed Verhamme and Roxanne Brock.
CAROL C. BRADLEY

- TOMI GERHOLD - SHE LOVES HER JOB



Gerhold
CAROL C. BRADLEY

Licensing specialist one-of-a-kind on campus

BY COLLEEN O'CONNOR, FOR NDWORKS

Tomi Gerhold is half of the University's two-person licensing department, working with Mike Low, director of licensing, and an outside agency, CLC (the Collegiate Licensing Company). She manages all the work involved in preparing licensee applications for the approval process.

Gerhold works closely with the Notre Dame Licensing Committee. This 10-member oversight group, selected by the president or designated vice president, is charged with approving requests from organizations to become a licensee, and ensuring that all authorized products bearing Notre Dame's trademarks are manufactured

under acceptable working conditions by companies that have adopted the University's Licensing Code of Conduct. Any national application must go before the committee for final approval.

In deciding whether to approve a company for licensing, Gerhold looks at more than just its product. "While a company may have a great product, an important question to ask is whether they have the capability to distribute their product," says Gerhold. "We look at their entire manufacturing process and where it takes place."

Additionally, every applicant must submit a detailed business plan that includes the market they are targeting. Gerhold looks for companies that can take a product nationally, not just limit it to Notre Dame's bookstore. Once approved, the licensee is required to pay Notre Dame a percentage of

wholesale on every item sold.

Many of the large universities can have as many as 400 to 600 licensees, but Notre Dame has only 177.

"We purposely have a smaller number of licensees so we can maintain a true partnership. One of our new departmental goals is to personally meet annually with each licensed company, preferably on campus," says Gerhold.

Although adidas is Notre Dame's No. 1 licensee, one of Gerhold's favorite companies to work with is Knights Apparel. "I love working with them because they are so socially conscious. They opened their factory, Alta Gracia in the Dominican Republic, in an impoverished area and pay their workers a living wage that is 3.5 times the prevailing minimum wage."

BY GENE STOWE, FOR NDWORKS

Pink Zone

raises more than \$200,000 to fight cancer



February's annual Pink Zone basketball game against West Virginia was part of an effort that raised more than \$200,000 for breast cancer research. At top left, cancer researchers from Notre Dame and the Indiana University School of Medicine-South Bend and their families were recognized at halftime. Right, Coach Muffet McGraw on the sideline in pink pumps; sophomore forward Natalie Achonwa, from Guelph, Ontario, Canada, battles Mountaineer Taylor Palmer; the Notre Dame Band shows its pink.

The annual Notre Dame drive for the cancer-fighting Pink Zone raised more than \$200,000 this year, an increase of more than \$75,000 from last year and four times the amount just four years ago.

A cross-campus committee of some 25 people started working in September on a collection of events, including a rare collaboration of the women's basketball team, the College of Science and the Knollwood Country Club, says organizer Stephanie Menio, operations and marketing specialist for the basketball team.

"We start with T-shirt sales in early December, which is a huge part of raising money," Menio says. "Our fans love those T-shirts."

The kickoff sale raised \$30,000. Other promotions included:

Spin-A-Thons: This year, for the second time, Knollwood hosted a 24-hour stationary bike spin. Last year's event raised \$30,000, so promoters added a second 24-hour spin at the the Rockne Memorial on campus and raised a total of \$53,000. Greg Crawford, dean of science, rode for 24 hours straight, and Menio rode for a total of 24 hours between the two locations.

Game Day: A silent auction before the Pink Zone game on Feb. 12 raised more than \$20,000. The Pink Zone Luncheon, "Docs in Pink," raised more than \$15,000 while honoring doctors, researchers and cancer fighters. A collection in the stands raised more than \$7,000.

The game's halftime show, with about 100 breast cancer survivors on the court, included Cathy Richardson singing "Here Come the Irish" and Tim Stop performing "With All Your Heart (Believe)" from the movie "Two Miles from Home," about the deadly Notre Dame swim team bus crash 20 years ago. Haley Scott DeMaria, who survived the crash and returned to competitive swimming after a week of paralysis, attended with her mother, a breast cancer survivor.

Corporate and individual donations: Lake Michigan Mailers raised \$3,000 from an appeal e-mailed to its clients. Fannie May donated 7,000 chocolate bars for sale, and buttons were for sale for \$1. The Catholic grade-school daughter of a committee member sold memory cards.

"There are so many different levels of commitment," Menio says. "It's phenomenal. We have our big events,

but it's one of those things where every dollar counts.

The bulk of the donations, \$111,000, goes to the Foundation of Saint Joseph Regional Medical Center. "They are providing the mammograms and they are providing the awareness and the support," Menio says.

The total includes \$56,500 for summer undergraduate cancer research internships through the College of Science. "That's part of finding the cure," Menio says.

Another \$37,000 goes to the Kay Yow Cancer Fund, a partnership with the Women's Basketball Coaches Association and the V Foundation for Cancer Research. Yow, a former N.C. State University basketball coach, inspired the Pink Zone initiative after her third diagnosis of breast cancer in 2006. The national program raised more than \$650,000 last year.

This year, organizers have added a summer golf outing at Knollwood Country Club to keep

raising awareness and money for Pink Zone.

"It just works," Menio says. "You have three passionate entities (women's basketball, the College of Science and Knollwood Country Club) coming together to fight for the cause. It's outstanding. Every year, we say 'how are we going to beat last year?' and we do. It kind of comes together."

Photos courtesy Michael and Susan Bennett, Lighthouse Imaging

Forward Devereaux Peters

