

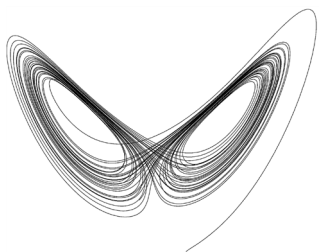
IN THE WORKS



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Father Jenkins issues closing statement on academic freedom, Catholic character

By Don Wycliff

A new committee on gender relations and violence against women, a new student-produced play, and a new set of guidelines on sponsorship of campus speakers and events were unveiled Wednesday (April 5) by University of Notre Dame President Rev. John I. Jenkins, C.S.C., as the “substantive results” of a debate he started two months ago on academic freedom and Notre Dame’s Catholic character.

Delivering what he called his “closing statement” on the debate, Father Jenkins wrote in a 1,800-word letter to the campus community that he sees “no reason to prohibit performances of ‘The Vagina Monologues’ on campus” and that he does not “intend to do so.”

“[I] am very determined that we not suppress speech on this campus,” Father Jenkins said. “I am also determined that we never suppress or neglect the Gospel that helped inspire this university. As long as the Gospel message and the Catholic intellectual tradition are present, we can welcome any serious debate on any thoughtful position here at Notre Dame.”

Despite Father Jenkins’ forceful assertion of respect and support for academic freedom, it had been feared by some within the Notre Dame community and some without that he planned to ban performances of the popular feminist stage play on campus. Similar fears had been voiced on behalf of a film festival focusing on gay and lesbian themes.

Both events were held on the Notre Dame campus during the 10 weeks of debate and discussion that followed the president’s speeches in late January to faculty, students and alumni in which he raised the question whether they were “instances of events which appear to imply endorsement of views that are in conflict with fundamental values of Notre Dame as a Catholic university.”

The Queer Film Festival was renamed the Gay and Lesbian Film Festival this year. “The Vagina Monologues,” which in prior years was an occasion for fundraising on behalf of women’s aid organizations, was performed in a classroom and was followed by panel discussions on the play and its significance to women and its relationship to Catholic thinking and teaching on sexuality.

It was the post-performance panels that made the difference for Father Jenkins.

“I still believe—as I said in my address to the faculty—that [the play’s] portrayals of sexuality ‘stand apart from, and indeed in opposition to’ the Catholic tradition on human sexuality,” he wrote. But the panel discussions brought the play into “constructive dialogue” with that tradition, he said, so that “our students were engaged and informed.”

“This is a good model for the future,” said Father Jenkins, who is in his first year as Notre Dame’s 17th president.

While the campus debate focused on “The Vagina Monologues,” Father Jenkins emphasized that his concern was with the larger issues of academic freedom and Notre Dame’s character as a Catholic university.

“The challenge is not to do just one of these—or even to do both of them in parallel—but to promote academic freedom and affirm our Catholic character in a way that integrates the two and elevates both. This University was founded on the premise that these goals are compatible and can be mutually reinforcing.”

Some of the people he heard

from over the last 10 weeks were “adamantly opposed” to any campus performance or expression that contradicts Catholic teaching, Father Jenkins said. “To them, we must say, with all respect: ‘This is a Catholic university.’”

On the other side were those who were “appalled that we would raise any question about the content, message or implications of a work of art, drama or literature here on campus. To them, we have to say, with the same respect: ‘This is a Catholic university.’”

Father Jenkins said that a Catholic university “provides a place for the Catholic tradition to share the wisdom it possesses with all academic disciplines, while providing that tradition an opportunity to be enriched through the encounter with new perspectives and discoveries.”

As to the “substantive results” of the campus debate, Father Jenkins said the student leaders who supported “The Vagina Monologues” have proposed to produce a play “written in student voices and describing their own experiences.” Titled “Loyal Daughters,” the play is to be an entirely student-produced effort “in consultation with the faculty advisors” they choose.

“I will do all I can to support this effort,” he said.

Additionally, Father Jenkins said he has created an ad hoc committee of students, faculty and administrators to foster “a wide-ranging discussion of gender relations, sexuality, and ways to prevent violence against women.”

Continued on page 3

The times are a-change-in’ in Vending

By Tim Masterton

With more than 1,000 pieces of equipment around campus, the machines operated by Notre Dame Vending go largely unnoticed until they eat your dollar or take captive your bag of Doritos. But a veteran manager and hard-working staff of 10 keep these mechanical employees operational and convenient for the entire campus community.

D. Dean Winter has worked in vending at Notre Dame since 1972, and though his responsibilities have changed over the years, his expertise and passion for his job have only grown.

“Back then, we just did food and beverage vending, and we also did stadium concessions,” Winter says. Today, as then, the secret to keeping the machines filled remains the same: “It’s a matter of routing.”

Vending now oversees much more than it did in the 1970s. Besides adding more and newer machines, the department maintains all residence hall laundromats. The service has become more student-friendly with the advent of technology that accepts swipe cards and Domer Dollars.

“It frees up discretionary money for other things,” Winter says. “The old hassle of whether I go out and get a pitcher of beer or if I’ve got enough quarters to do my undies, that battle is not as bad as it used to be.”

Notre Dame Vending also runs an office refreshment service, which grew from the older office coffee business and allows departments to order a variety of items for meeting and break rooms.

The most popular office choices?

“The five-gallon water jug business has been very big,” Winter says. “Right behind that [are] smaller bottles of water.”

The most popular new item is already a familiar sight, as more than 30 offices have had them installed.

“It’s a coffee brewer that brews one cup of coffee at a time,” says Winter. “We furnish it as part of the cost of coffee and supply the brewer and maintenance. And when Father Jenkins took over, he wanted to make sure that that type of coffeemaker was in his office.”

True story, says Jenkins’ administrative assistant Kryss Montague, who explains why the single-cup option is such an asset for those who work long hours.

“Father Jenkins comes in Saturdays, Sundays. He’s here late at night. When he’s here he can make a single cup of coffee. We don’t end up making a full pot and throwing out the unused coffee.”

The classic vending machines still receive a great deal of business, especially those in high-traffic areas equipped with card readers that take Domer Dollars for payment.

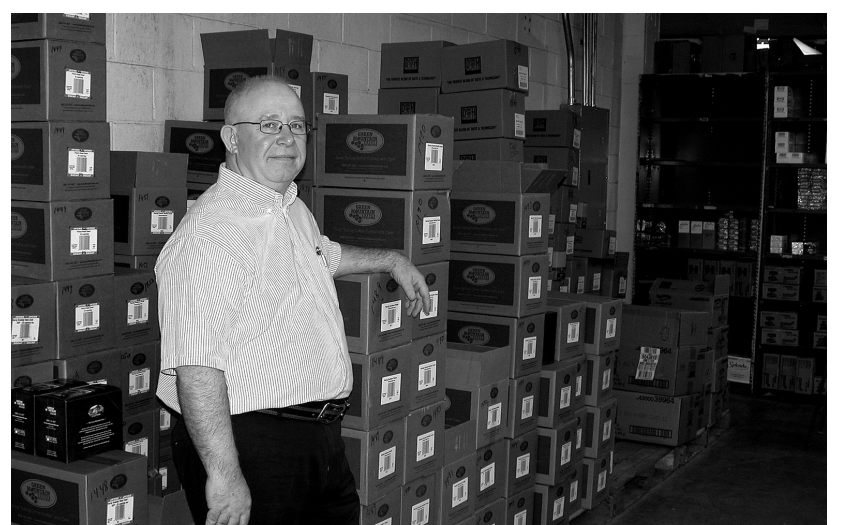
“I like to keep people guessing and always have something new or unexpected,” Winter says—but Coke,

Diet Coke, Pepsi, water, M&Ms and Snickers still reign supreme. “The interesting thing is how sales are spread across the many drinks and varieties.”

Winter has also noticed a trend he calls the “backpack mentality.”

“Now, instead of a can, you just get a 20-ounce bottle and throw it in your backpack and take it with you because you can reseal it,” he says. “That’s why bigger-sized candy makes sense, too.”

Beyond water and sweets, Winter considers himself blessed to have such an outgoing, hard-working staff. When he was out for three weeks in February for open heart surgery, Winter says, “They pulled together as a group and ran the place.”



If you like your Dark Magic-flavored coffee in the morning, give thanks for Dean Winter, who oversees Notre Dame Vending. The department is the source of office water, coffee grounds and snacks and it keeps the University’s vending machines full and residence hall laundry equipment functioning. **ND Works staff photo.**

Bon Sel (“Good Salt”) to help cure disease in Haiti

By Carol C. Bradley

After six years and \$5.2 million in grant support, Rev. Thomas G. Streit’s work to prevent elephantiasis has been expanding from treatment to prevention. And persuading Haitians to accept the proverbial “ounce of prevention” has taken not only the dedication of the priest-biologist, but the support of faculty from art, art history and design.

Father Streit—whose operation has treated 1.255 million Haitians for the grossly disfiguring mosquito-borne disease—has struck on a method to add diethylcarbamazine (DEC), the medication used both to treat and prevent the disease, to the country’s salt supply so that Haitians receive the medication year-round, explains Haiti Program manager Sarah Peterek.

In addition to the added DEC, the salt—marketed as Bon Sel—will be iodized. A deficiency of iodine in the diet causes cretinism, which lowers the IQ by as much as 10 to 15 points throughout Haiti. While the U.S. has had iodized salt for 200 years, Peterek says, imported, iodized salt is available only to the Haitian elite.

It’s a challenge, she says, “because there is no regulated system for salt distribution.”

But part of Father Streit’s genius is that he develops partnerships. For this challenge, he identified two needs: To develop more efficient ways of extracting salt from seawater, and to create a logo and advertising campaign for the product. These challenges have been ongoing projects of Notre Dame’s graphic design and industrial design programs.

Associate professor Paul Down’s industrial design students worked on systems for salt harvesting and packaging. Utilizing raw materials available locally in Haiti—“in many cases garbage,” Down says—students are developing more efficient methods of extracting salt from seawater. One design utilizes discarded plastic pop bottles. The technology could be used immediately, if not for constant political unrest that impedes progress.

Robert Sedlack, assistant professor of design in the Department of Art, Art History and Design, had three senior graphic design students work on a logo and ad campaign for the product. The proposed package designs were test-marketed with focus groups in Chicago’s Haitian community.

Graphic designers work with people to help them craft the way they communicate their message. Real-world challenges give students the formal design training they need, Sedlack says.

“But this kind of project offers so much more,” he adds. “We’re able to work on projects that force students to be invested in the larger world community, which is what Notre Dame can and should offer students.”

In the end, the logo and name for the product came not from a student, but from Sedlack himself. “Bon Sel,” he says. “It was part of my 2 a.m. epiphany.” The design



literally came to him in the middle of the night. A flash of inspiration, perhaps—but all those years of training, plus his research, working with Father Tom and a trip to Haiti were behind that moment.

What Sedlack realized was that even in a largely illiterate population, people can still read a few words, and that sel (salt) and bon (good) were likely to be two of them. Bon Sel suggested both a good product, and a product that was good for you. The green cross is the international sign for medicine. Graphic design, Sedlack notes, is about sharing information. “It can sell socks or soda. But it can do a lot more.”



On a visit last month to Haiti, emeritus chemistry professor Emil Hofman located a bag of Bon Sel+ in a market. The logo is the design of graphic design professor Robert Sedlack. *Photo provided.*



Industrial design professor Paul Down and students Julia Burke, at left, and Katie Powers and other students worked to design proposed salt extraction systems for Haiti using locally available materials. The project at center involved salvaged plastic soda pop bottles. *Photo by Carol C. Bradley.*

Faculty learn to use film as a teaching tool

By Susan Guibert

Long gone are the days of grainy filmstrips and sidebar images projected on a classroom wall.

For current college students—a generation accustomed to seeing friends on their cell phone screens, looking at photos in “My Space,” and viewing life-like graphics on video games—watching a film for a class seems a natural fit.

“Students are very familiar with film and television and know how to talk about it, but they don’t know how to be analytical about it,” says Jim Collins, professor of film, television and theatre (FTT). “At the same time, they know that they need to be analytical when talking about literature, classical music or paintings.”

To help students learn to become more critical viewers, Collins first needs to teach their teachers. He will conduct a weeklong summer seminar for faculty titled “How to Teach Film in the Humanities,” designed to meet the needs of professors who have expressed interest in using film in their curricula but who hesitate because they feel they lack the proper training.

“The main limitation in the way film has been used in the past comes from its use as a sidebar illustration, a short clip shown to spice up the class. This approach doesn’t really come to terms with film as a way of knowing—a way of interpreting the world,” says Collins.

“The course will explore the different methods that may be used in teaching film with a variety of new teaching strategies. We will discuss the very different ways that film can be analyzed effectively depending on the needs of a given course, whether it is close visual analysis, comparative aesthetics or cultural analysis.”

Faculty participants in the class will gain theoretical knowledge through lectures and readings, but they also will view films each day and apply their new analytical skills to those films during afternoon discussions.

Using the film “Crash” as an example, Collins explains that viewers of that movie don’t learn that racial prejudice exists by watching the film—it’s assumed that they already know that. But viewers see how racial prejudice is enacted and envisioned, raising questions and challenges of how images reinforce stereotypes.

“Ideally, students will look critically at images in movies like ‘Crash’ and analyze ways in which stereotypes are made,” Collins said. “Reading images critically can lead to productive debate and sensitize them to different aesthetic factors involved.”

A member of the Notre Dame faculty since 1985, Collins specializes in film and television theory, film history and pop culture. He is the author of “Uncommon Cultures: Popular Culture and Postmodernism,” “Architectures of Excess: Cultural Life in the Age of Information,” and, most recently, “High-Pop: Making Culture into Popular Entertainment.” He also was the co-editor of “Film Theory Goes to the Movies.”

Collins earned his bachelor’s and doctoral degrees from the University of Iowa and also studied at Centres des Etudes Cinematographique in France. He is the associate chair and director of undergraduate studies in FTT.

Faculty can learn more about the course by contacting Collins at 631-7161 or Collins.3@nd.edu.

Liberal arts study to boost understanding of undergraduate experience

ND Works staff writer

To the parents of recently-accepted members of the Notre Dame Class of 2010: If your incoming freshman is asked to participate in a survey about their experience during their four years here, urge him or her to accept.

So say two administrators who have served as the University’s liaisons to the Center of Inquiry in the Liberal Arts at Wabash College. The center is undertaking a four-year national study of liberal arts education; Notre Dame is one of 18 colleges and universities from which the center will collect both student and institutional data.

The center’s mission is to study and promote liberal arts education, and its research projects thus far have proven the positive value of such scholarship.

This study seeks to measure how students develop in seven areas: leadership, reasoning and problem-solving, well-being, moral character, integration of learning, intercultural effectiveness and lifelong learning. The study will identify not only whether and how much students develop because of their collegiate experiences, but also why and how this development takes place.

At Notre Dame, 400 incoming freshmen will be asked to participate in

the project by taking intermittent surveys during their four years at the University. Among these students, 50 will be invited to participate in individual interviews during the course of their four years.

“Sometimes students view their education as just a series of isolated courses,” notes Dennis Jacobs, vice president and associate provost. “Students participating in the study may find an opportunity to reflect on their overall educational experience and identify ways they’ve grown and developed that they hadn’t realized.”

“It will help them see the forest,


not just the trees,” adds Barbara Walvoord, a professional specialist who oversees Notre Dame’s assessment initiatives.

The University has much to gain from the study. The longitudinal aspect—charting the same students over four years—is the most powerful piece of the study, Jacobs says.

“Are there moments in a student’s academic experience when they make significant strides?” he asks. “How are those moments tied to an intentional experience the University has created, such as the international experience or its academic programming?”

Data that compares Notre Dame with 17 other institutions should leave the University “with a much stronger sense of whether what is happening here is different, distinct, unique or typical,” Jacobs says. Information provided by a team of external reviewers also will give Notre Dame feedback from a fresh perspective.

Jacobs and Walvoord both point out that by participating, students have an opportunity to contribute to the whole and to help Notre Dame. As it happens, the 400 who take the survey will earn a \$50 stipend; the 50-student interview group will earn \$30 for each one-on-one interview.



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EDITOR IN CHIEF
Gail Hinchion Mancini
ASSOCIATE EDITOR
Carol C. Bradley
LAYOUT EDITOR
Wai Mun Llew-Spilger
COPY EDITOR
Claire Heining
Comments should be forwarded to:
ndworks@nd.edu or to NDWorks,
502 Grace Hall, Notre Dame, IN
46556.

In ‘knighting’ Perry, ils n’ont pas parlé français

By Gail Hinchion Mancini

In the recent ceremony that saw the “knighting” of French Professor Catherine Perry as a Chevalier in the “Ordre des Palmes Académiques,” certain adjustments had to be made due to the event’s on-campus location.

The ceremony was not spoken in French, out of deference to non-French-speaking members of the faculty who came to see Perry honored for outstanding contributions to French education and culture. Fellow French faculty member Julia Douthwaite delivered a historic account of Notre Dame’s ties to France—a fitting tutorial for visiting dignitaries from the French consulate, who may have been curious about the combination of our French name and “Fighting Irish” identity.

The cuisine was lovely, although not French. “But the wines were,” Perry notes.

No swords were used in the ceremony—as is done when Britain dubs its knights—and although a Chevalier, Perry has gained no accompanying title, such as “My Lady.”

In plentitude were “hugs and kisses, on both cheeks,” Perry says.

If the ceremony included fewer accoutrements of France than expected, their absence mirrored Perry’s career—which is not about France at all, but about Francophones, those who speak French.

“French is the second-most widely spoken international language (after English), and it is spoken all over the world,” she says. Her honor acknowledges collaborations she has undertaken, sometimes with France’s cultural agencies, to bring French-speaking intellectuals, writers and performers to the United States from such areas as Morocco, the Ivory Coast, Switzerland

and Belgium.

Having grown up in Switzerland and as a young bride in Morocco during highly politicized days of the early 1970s, Perry has lived in areas where the French language is the only common denominator among clashing, politically charged cultures where entire families are thrown in jail, books are banned and girls are forced to marry at 15.

“French allows people of very different cultures to communicate,” she says. From Europe to Africa, Haiti to Tahiti (and in 55 countries), “You can be understood. It’s an avenue to other cultures.”

Perry earned her doctorate from Princeton University in the early 1990s, when French studies were about France.

“Now, every doctoral program in the country emphasizes Francophone,” she says.

She has found its intellectual expression as a member of the international association “Conseil International d’Études Francophones” (CIEF). She served as its president from 2003 to 2005, and continues to be closely involved as editor-in-chief of its refereed journal, *Nouvelles Études Francophones* (NEF).



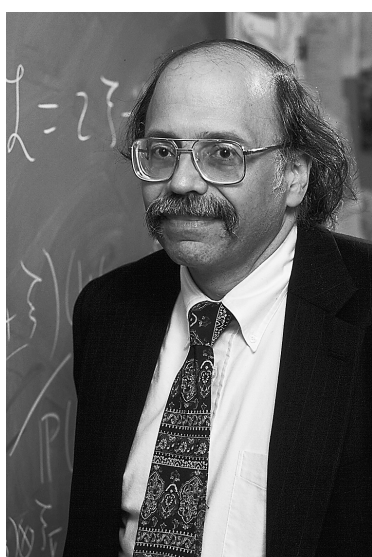
French Consul Richard Baberyon and Catherine Perry, associate professor of French, execute the European two-cheek kiss as he finishes bestowing her the honor of “Chevalier” during a special luncheon March 22. *Photos by Joe Raymond.*

Applied math provides interdisciplinary glue

By Gail Hinchion Mancini

Joannes Westerink is a member of the engineering faculty. But on March 24, he may as well have been a mathematician, as he dazzled participants in the first conference of the Center for Applied Mathematics with details of his hurricane-modeling system and Hurricane Katrina.

There, he dwelled among members of Notre Dame’s business faculty, economists, biologists and social scientists who had come to hear numerous perspectives on a kind of mathematical modeling called stochastic modeling, or the modeling of random events.



Sommese

Mathematics, it would seem, is the new melting pot.

Andrew Sommese, director of CAM and Duncan Professor of Mathematics, has felt this change keenly during the course of his career. He was a student at Princeton during the declining years of John Nash, the Nobel laureate and subject of the movie “A Beautiful Mind.” Sommese himself was once a “pure” mathematician—a researcher on algebraic geometry—whose interest involved advancing abstract theory and creating proofs. In applied mathematics, “you orient yourself to the world around you,” he says.

Sommese dipped his toe into applied mathematics during a strange turn of events involving a graduate student he met while teaching at Yale who had gone on to work in

research at General Motors. Early in his Notre Dame career, Sommese invited this friend to campus to describe his research. As an aside, Sommese mentioned his friend’s computer code would run much faster by employing a few tools of algebraic geometry.

Next thing Sommese knew, he was a GM consultant.

At about the same time, then-University Provost Tim O’Meara, a pure mathematician of the algebraic variety, foresaw the importance that applied mathematics could play in research. In 1987, he established CAM. It found its permanent home in the College of Science, where Dean Joseph Marino calls it “one of the most important interdisciplinary organizations on campus.”

In the early days, Sommese says, applied mathematics was considered “slumming” by many mathematicians.

“But the problems got larger; and the groups that work on them got larger,” he says. The mathematics department now has seven applied mathematicians. One of them, Mark Alber, is a specialist on cells and the growth of bones. As proof that the lines among disciplines are being erased, Alber is a concurrent professor of physics and director of the Center for Biocomplexity.

More significantly, federal funding dollars are following the applied mathematicians, Sommese says. He calculates that his applied mathematics projects receive \$3 in federal funding to every funding dollar he received on a pure mathematics project. His projects

Application numbers break record

ND Works staff writer

Telephones are ringing in the Office of Undergraduate Admissions this week. It’s the same every year, as the staff handles calls from applicants who have not been accepted into next fall’s freshman class.

Acceptance letters went out Thursday, March 30. Friday, the office heads gathered staff members to rehearse answers for incoming calls. Staff members are encouraged to assure parents that their sons and daughters are terrific; there just isn’t enough room in the freshman class for everyone, says Bob Mundy, director of admissions operations.

That’s truer than usual this year, because Admissions received its highest number of applicants in its history: 12,799; 3,490 have received acceptance letters. Eight-five of the applications were from the students of Notre Dame and Saint Mary’s faculty and staff; 59 of those students were accepted.

Last year’s total applications numbered 11,316; 3,477 received acceptances. Since the size of the admissions staff does not grow during record years, Mundy has high praise for the roughly 30 staff members who shepherded the process to the March 30 “mail day.”

With the larger number of applicants, the pool is richer in many aspects, he says.

For example, total minority applications were up by 13 percent; Hispanic applications alone were up 20 percent. The increased interest translated into an increase of 5 percent in the number of African-Americans receiving acceptance letters; 12.7 percent in the number of Hispanic students receiving acceptance letters, and a nine percent increase in the number of Asians receiving acceptance letters.

In the past month, the College Board reported that thousands of SAT tests were incorrectly scored, so that students received lower scores than they should have. That problem affected at least 50 Notre Dame candidates whose applications had to be reviewed. “In no case did it alter the decision,” Mundy says. “But it was unnerving.”

“Mail day,” or the day acceptances are mailed, “is the middle of the game” in building a freshman class, Mundy says. Those accepted may be reviewing other offers or their financial aid options. Of the 3,400-plus accepted, just under 2,000 will enroll.

support mechanical challenges, such as the specifications to produce a robot’s arm.

His first CAM conference behind him, Sommese has two planned for the next academic year and one outlined for the 2007-08 year. The conference attracts a roster of international specialists, but its chief audience is Notre Dame researchers and graduate students whose projects can benefit from those various approaches, or from new relationships with the presenters. CAM also awards one- and two-semester stipends to Notre Dame graduate students in support of interdisciplinary applied mathematics research. Of the six issued this academic year, only one and one-half are held by mathematics students. Sommese notes this transition to applied mathematics is not a new trend, but a return to something familiar.

“Pure mathematics in isolation from the rest of human knowledge is an invention of the 20th century,” he explains. Up until the 19th century, an educated person, certainly a professor, understood a bit of everything. Knowledge exploded in the 20th century, begetting specialists. “It’s nice to see it go back to how it was,” Sommese says.

Continued from page 1 Jenkin’s closing statement

The president said he will chair this committee, which he said would “help enrich our discussion of issues critical to the lives of women here at Notre Dame and beyond.”

Father Jenkins said he had reached a written understanding with departmental chairpersons on standards for sponsorship of speakers and events. The agreement is to be presented to the University’s Academic Council for consideration and possible adoption.

The full text of Father Jenkins’ closing statement is available on the Web at <http://president.nd.edu/closingstatement/>.

Notre Dame researchers are engaging in a myriad of relationships in order to see their ideas become reality. Five scientists and engineers talk about when, why and how they leave their research to shepherd this development, and how their efforts appear to be filling a void left by changing practices in industry and government.

Gail Hinchion Mancini and Bill Gilroy contributed to these stories.

Company start-up yields better students

Ask those in the know to name a truly entrepreneurial faculty member, and the same name pops up: Chia Chang.

A number of Notre Dame faculty members have made discoveries that can be turned into marketable ideas. Chang and his partners David Leighton and Mark McCready, members of the chemical engineering department, distinguish themselves because they formed their own company to make sure their ideas become products.

The company does not actually manufacture its technology. It interfaces with Notre Dame's Center for Microfluidics and Medical Diagnostics, which Chang directs. The small operation scours companies both large and

small, start-up or established, that might be interested in developing, manufacturing and marketing this technology.

Chang borrowed concepts from electronic engineers and his own chemical engineering know-how in conceiving the Lab on a Chip. Although only in prototype at this point — it's the shape and size of a microscope slide—the hope is that these devices someday will instantly analyze bacteria, viruses or even parasites. Today, those same tasks are fulfilled by a laboratory; the tests take days to complete.

There's no question Chang would like to see these devices in the hands of medical personnel throughout the world.

"In our society, that means we have to go through the commercial sector," he says.



With fellow chemical engineers David Leighton and Mark McCready, Chia Chang has conceived a thumb-size "Lab on a Chip" that can instantly analyze glucose and detect bacteria, viruses and parasites.

It matters to Chang that his solution is engineering with an ethical purpose, and one that will help humankind. One of the challenges of finding development partners, he says, is to avoid a business that would license the technology, then shelve it.

Chang says he's had some surprises since he started the company three years ago.

"You wouldn't think this, but in many ways, this encourages students to go into academics," he says. "Many students go into industry because they don't see that what they learn in graduate school is something they can use. They want to do something real."

There is a clear dividing line to be drawn in the learning experience, he adds. The students' job is research.

"To assign them development tasks is to use them as cheap labor," Chang says. "What they should be doing is fundamental research that is publishable."

But he predicts that technology transfer applications will have lasting impact on the learning experience, saying, "Technology transfer is going to be the technology paradigm of the future in engineering."

Cold-calling 1-800-PARTNERSHIP

Joan Brennecke says she doesn't exactly like making cold calls—picking up the telephone and trying to find someone at a business to engage in a research partnership.

But she has done it twice, and both times with good results. Most recently, she called NiSource Energy Technologies, Inc. in Merrillville. A consulting group that mutually advises Notre Dame and NiSource had noticed a similarity in their work, and urged Brennecke to call.

Bingo: In the 2006 Energy and Water Development Appropriations bill, \$1.5 million has been slated for the research being conducted by Brennecke and NiSource. In essence, they aim to build a more energy-efficient air conditioner.

The project is an early one for the newly created Notre Dame Energy Center—an initiative that unites researchers devoted to developing new energy technologies to meet a compelling national and international challenge. Housed in the College of Engineering, where Brennecke is the Keating-Crawford Professor of Chemical Engineering the center's goals are to play a key role in energy education and literacy, help develop energy policy and explore the ethical implications associated with energy.



Joan Brennecke has occasionally called a business out of the blue in order to build a research partnership. **Photo provided.**

translate to the marketplace."

But should academics in engineering and the sciences have to make personal efforts to launch their research into product? As Brennecke points out, "In general, usually we are not taught to be business folks, to write business plans," she says, then laughs when adding, "These are all things we avoided on purpose."

The business and funding climate, though, has changed in a way of which researchers should be mindful.

"It used to be that 90 percent of the products that companies made were developed by in-house researchers," meaning the nation's companies use to come up with their own ideas, Brennecke says. But "open innovation" is now the buzzword.

"Smart companies are ones that look around for ideas and inventions that they can commercialize," she says. And they're looking at colleges and universities—with something of a golden age for researchers as the result.

But there's a caveat, Brennecke says: "The thing you notice is that companies are still interested in very, very short timelines. When it comes to getting companies to fund research, they still want the end answer in the year." As in Chang's case, a professor must not allow the student's research experience to be compromised, Brennecke says.

He gets by with a little help from his friends

Paul Helquist doesn't claim to be an entrepreneur—someone who would start a business. But he is good at building relationships.

There is, first, the highly interactive partnership he has with Olaf Wiest—Helquist is a chemist with a gift for identifying synthetic solutions to attack various diseases; Wiest, also a professor of chemistry, does supercomputer modeling that can rapidly analyze the potential effectiveness of Helquist's proposed compounds. Their collaborations consider medical cures that identify how to correct genetic misfires. They are pursuing solutions to syndromes that range from cystic fibrosis to cancer to Niemann-Pick Type C disease.

Helquist's synthetic compounds are good for more than one solution.

"Now that we know how to make this specific compound, we can easily modify our synthesis to make others," Helquist says. "Olaf's supercomputer can help us find out how we can tweak it to solve other problems."

Last year, representatives of the Ara Parseghian Medical Research Foundation met with Helquist to explore the value his methods would have in finding a cure for Niemann-Pick. A potential partnership seems promising.

Given the complexity of the task, Helquist's work thrives on other partnerships.

"We develop the means to make these drug molecules. Other colleagues can perform tests or assays with cell cultures," he says. "If those results are promising, then we can hand off to others who are prepared to begin studies of these new potential drugs."

At some point, a non-academic group of professionals will be needed to take these drugs through the human testing protocol that all medical therapies must undergo. At some point, an entrepreneur is needed to market these compounds.

One job of the University's Technology Transfer department is to beat the bushes for these partners. Helquist, Chang and Brennecke all would appreciate a fully realized division that could handle the business end of these issues. But Helquist notes that the Notre Dame network has itself provided those resources.

"Notre Dame is so well-connected, it gave us abundant opportunities to put it to good use," he says.

For example, Helquist and Wiest are collaborating with Norbert Wiech, an industrial biochemist and Notre Dame graduate who owns a small pharmaceutical firm that specializes in treatments for rare diseases. Wiech brings together resources from a number of special agencies and foundations to fund and develop drugs for rare diseases.

"These diseases are so rare, and there are thousands of them that only a small number of people experience," Helquist says. "Developing medicines for them is cost prohibitive. If you have only 1,000 people who suffer from these diseases, their treatment might cost \$1 million a person."

As Brennecke notes—and Helquist's relationships demonstrate—Notre Dame scientists who want to positively influence humanity can best succeed by attending to this new system of "open innovation" in which, in the marathon of entrepreneurial solution-finding, university researchers run the first several miles.

His world turned upside down

Peter Kogge had made considerable advances in an idea that would make computers run more quickly: Merge the logic and memory functions on the same chip. Speed would be gained as the chip provided proximity for what had been two unrelated tasks.

But then, says the self-described computer architect



Paul Helquist works with fellow chemist Olaf Wiest on synthetic compounds that correct the genetic misfires that lead to several diseases.

who calls this idea Processing-in-Memory (PIM), “The world ended.”

“About two to three years ago, funding went away, from the government, from industry,” he says. The government apparently thought industry could handle chip development; industry was reeling from the dot-com bust. A void of partners who could foster the advancement of hybrid solutions developed.

Kogge, his research partner and ND colleague Jay Brockman and their partner Cray Inc. Industries were ready to develop such chips, but the cost became astronomical. Industry development dollars appeared to be accessible only to such projects that promise high volume sales, such as the chips that drive Xboxes and Game Boys. (The latter, developed by IBM, is said to have cost \$400 million to develop.)

This stall in the development pipeline left Kogge and Brockman with little else to do but explore the technology’s potential on paper. More disturbing, the change began to stifle all academics in the field of computer architecture.

To realize the goal of development, Kogge, Brockman and a partner from California started Emu Solutions LLP. (Emu stands for embedded memory unit—and Kogge has an affection for the bird from Down Under, since these changes have turned his own world upside down.)

Emu is an engineering development company whose goal is to allow both industry and academia to produce memory-rich logic chips in an affordable manner. The company’s first task is to generate funding for development, and its first project will address PIM chip development. Long-term, Emu will seek to develop a new generation of computers.

The cheerful news about the end of the world is that as Kogge continued to examine the potential of his idea “on paper,” other applications of his architecture turned up. Federal agencies are changing direction from supporting classical supercomputers to supporting knowledge discovery, where computers seek patterns instead of crunching numbers. Coincidentally, the non-numeric algorithms Kogge and Brockman have been studying with Cray appear to fit what the government is seeking.

Kogge would like to see Emu succeed, not only for his own research, but to help academic research in this area get back on track.

“We really know what to do with this stuff,” Kogge says. “If we do this start-up right, not only do we enable production, but we enable continued research in this area.”



Peter Kogge, of computer science and electrical engineering, is architect of a chip that mixes memory and logic, thereby speeding performance.

Great science and cautious pessimism

Shahriar Mobashery makes a valid point: Even if his ideas are never translated to viable medical cures, he and his team will have experienced success.

The Navari Family Professor of Life Sciences has been working on a series of therapeutic compounds that show promise in helping cancer and stroke patients. His research on antibiotic resistance is particularly promising, as staph infections themselves have become a fatal problem in hospitals, nursing homes and prisons.

By the end of the semester, Mobashery believes he will have identified a ninth class of antibiotic (the human body has grown resistant to the first eight) to treat staph. Mayland Chang, assistant director of the Notre Dame Cancer Institute and Mobashery’s spouse, has designed testing trials that will soon yield information on how the compounds influence infection in mice. Employing Brennecke’s concept of “open innovation,” the team’s work seems a tidy package ready for licensing, as it is so close to being ready for the human trials that all new drugs must undergo.

“We develop molecules that intervene in the disease process,” Mobashery says. Because clinical situations such as resistance to staph are dire, the challenge becomes more interesting. But, he says, if his compounds “alleviate stroke or prevent cancer from spreading, these are bonuses. Either way, we have done good science.”

Mobashery is not actually blasé about seeing his work turned into medicine. It’s more that he’s grown cautiously pessimistic as a result of changes in the pharmaceutical industry and in the way the government awards funding.

In a trend Mobashery started seeing five to seven years ago, drug makers began to favor developing products people would use daily, or at least frequently. A cycle of antibiotics that will cure someone in 10 days is not the money-maker that allergy or heart-maintenance medicine is. The dilemma is similar to the one Kogge faces, where a manufacturer will spend \$400 billion to advance video games, because video games sell.

Except that without medicine, people get sick and die.

“A hundred thousand people die of bacterial infections every year. The very young and the very old truly are the victims,” Mobashery says.

The government, too, has been moving away from health research. Two years ago, one in three grant applications for cancer research were funded; in 2007, that number is expected to drop to 1 in 20, Mobashery has learned.

Alternates to government and industry are developing, such as the Walther Cancer Institute, which has close ties to the Notre Dame Cancer Institute. Since 1985, the institute has invested nearly \$70 million in cancer research through collaborations among Midwestern medical and educational institutions. It supports basic research as well as the clinical research that transforms discoveries into treatments.

Meanwhile, the Technology Transfer office is scouring the horizon—and alumni files—for other angels. There must be more Norbert Weichs out there somewhere.



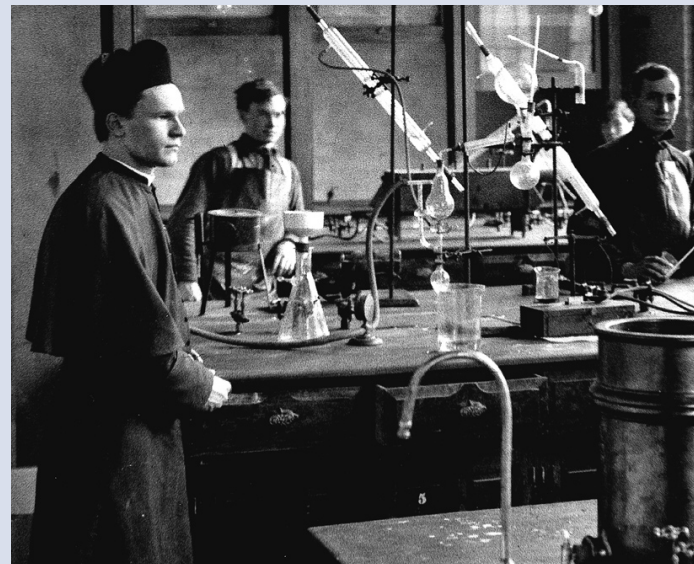
Shahriar Mobashery’s research could lead to a new class of antibiotics. **Photo by Matt Cashore.**

Of home runs and real-world challenges

By Gail Hinchion Mancini

If you can stand a baseball analogy uttered in the interest of scientific discovery, Rev. Julius Nieuwland, C.S.C., was the Babe Ruth of Notre Dame inventors. And in the world of university-based researchers, he’s a Hall of Famer.

Nieuwland, a chemist and botanist, earned several patents during the 1920s and ’30s, one which was developed into the synthetic rubber Neoprene and ultimately earned Notre Dame nearly \$2 million, recounts Jeff Kantor, vice president for graduate studies and research. By one account, Nieuwland’s mid-1940s royalties could have underwritten 75 percent of faculty salaries.



The inventions of Rev. Julius Nieuwland, C.S.C., remain the most lucrative for the University in terms of royalties from a commercial developer. **Photo provided by Elizabeth Hogan, University Archives.**

“Income from Father Nieuwland’s patents was the last significant income we’ve received on any patent in nearly 60 years,” says Kantor, whose been working on encouraging inventors and developing a technology transfer operation since his appointment in 2001.

The results have been promising, and comparable to other universities, Kantor says.

In the five-year period from 2001-2005, Notre Dame research resulted in 11 issued patents. More than two-dozen additional patent applications are in process, and the University earned a cumulative \$823,000 in patent income. Licenses have been granted to 13 companies to use technology developed at Notre Dame, with options out to another four. Four companies have been formed to commercialize Notre Dame technology—two of them started by Notre Dame faculty.

The technology transfer office has been ratcheting up its activities with the arrival of Liz Spencer, a long-time technology transfer specialist from Carnegie-Mellon, and Jonathan Ho, a scientist who had been a technology transfer specialist with the National Cancer Institute.

In baseball analogies, there’s getting to be some depth on the bench. But it turns out it’s not the number of patents or the effort put into developing new ideas that yields a great score. A deeper look at the data shows earning significant income on patents is, as Kantor says, “a game of home runs.”

In fiscal year 2004, licensing and royalty income amounted to more than \$1 billion; more than \$200 million of that went to just two schools, Columbia and New York University. (Remember when the Yankees were so dominant?) Even Stanford, which has had its successes, reports that over a 30-year period, fewer than half of its licenses earned more than \$10,000, Kantor notes.

Sometimes the Red Sox or White Sox win the World Series, sometimes the dark-horse university makes a splash. Ohio University saw patent income rise from \$43,000 in 2003 to \$2.4 million in 2004 because of a hit on one drug patent. In the same year, the University of Mississippi saw revenues jump from \$141,000 to \$3.2 million as patents on four new drugs and one medical device began earning substantial income.

There are reasons other than money to become involved in technology transfer, says Kantor, who has valued external partnerships since he began his academic career in chemical engineering. A research partnership with a Fortune 500 company made him feel more challenged than he might have in a strictly academic environment.

“The world is a valuable source of good problems,” Kantor says.

Under the Bayh-Dole Act of 1980s, universities are to share royalty income with its faculty members. Kantor says he has been surprised by the number of faculty who channel licensing income into their labs. They use the money to underwrite graduate student stipends, undergraduate research assistants, and other laboratory expenses.

“This altruistic behavior, I think, vividly demonstrates how technology transfer benefits faculty and students at the University, and the value faculty place on finding sources of sustained research support.”

“The case for technology transfer rests on how it enhances intellectual vitality, how it provides new opportunities for our faculty and students, and how we value the commercial dissemination of research performed at Notre Dame,” he says.

Of course, everyone likes a winner. You could sit on the edge of your seat waiting for the next big Notre Dame to score. But you might also want to think of becoming a Cubs fan.



Jeffrey Kantor has made technology transfer a priority since 2001, when he was named vice president of graduate studies and research. **Photo by Matt Cashore.**

Study shows women politicians inspire political interest in girls

By Susan Guibert

A study by two Notre Dame political scientists shows that the more women politicians are made visible in national news coverage, the more likely young women are to become politically active.

David Campbell and Christina Wolbrecht, authors of “See Jane Run: Women Politicians as Role Models for Adolescents,” found that female adolescents’ interest in politics is heightened by female candidates—in particular, those campaigning for high-profile offices.

“A highly visible woman in the future—perhaps even at the top of a major party presidential ticket—has the potential to generate significant interest in political activity,” the authors report.

Campbell and Wolbrecht found that girls’ increased interest in politics can be initiated by women running for office and, then, further heightened by discussions with a parent or another adult family member.

“Visible female candidates trigger conversations about politics between parents and their adolescent daughters, familiarizing girls with the political world and leading them to envision themselves as participants in politics,” according to the authors.

The study was published in the March edition of “The Journal of Politics.”

A member of the Notre Dame faculty since 2002, Campbell is an assistant professor of political science and faculty fellow in the Institute for Educational Initiatives. In 2002, he received a national award for the best dissertation in American government from the American Political Science Association for his dissertation titled “How Communities and Schools Shape Civic Engagement.” His areas of specialty include American politics,

political participation, religion and politics, and educational policy.

The Packey J. Dee Associate Professor of Political Science, Wolbrecht has been a member of the Notre Dame faculty since 1997. She is the author of the award-winning book “The Politics of Women’s Rights: Parties, Positions, and Change.” Her areas of specialty include American politics, political parties, interest groups, mass behavior, and gender politics.



The Basilica of the Sacred Heart will be the setting of Holy Week events. Some regular Mass times have changed to accommodate these events. **Photo provided**

researchers.

Send nominations to ndworks@nd.edu or call 631-4314.

Gear up for Old2Gold

Old2Gold takes place Saturday, May 27, and organizers already have jobs for volunteers. Work for the giant stadium sale of used items will be in full swing by the end of April, says committee member Alan Bigger, director of building services.

Last year, 200 University representatives volunteered for the first-ever event. It raised \$28,000 for local agencies and charities. This year, says Bigger, director of building services, they are seeking 300 volunteers, and the goal is \$50,000.

The event resells items that students do not care to bring home as they close their residence hall rooms for the year. They start donating items beginning May 1. Volunteers haul those items from 27 residence halls to the stadium, tag them and prepare them for the event.

“We have thousands of pairs of shoes and jeans, 650 carpets. All of them have to be sized and priced,” Bigger says.

The event itself takes place from 7 to 11 a.m. in Notre Dame Stadium, and volunteers are needed to monitor the entrance gate and coordinate sales, says Bigger, who is accepting volunteer registration at bigger.1@nd.edu or 631-5615. Notre Dame volunteers can ask that their hours be credited to a local agency of their choice.

New this year, Bigger is asking departments to donate items not normally passed through NDSurplus that might be salable. Security/Police has primed the pump by donating 40 abandoned bicycles.

Worshiping during Holy Week

The Basilica of the Sacred Heart has several special Masses and ceremonies in observance of Holy Week.

Masses times have changed for **Palm Sunday**, April 9. The 10 a.m. Mass will begin at 9:45 a.m. and will include an outdoor procession led by University President Rev. John I. Jenkins, C.S.C. The next Mass will begin at noon and also will include a procession.

On Tuesday of Holy Week, April 11, there will be campus-wide **Stations of the Cross** at 7 p.m., with the procession departing from the Grotto.

Holy Thursday, April 13, an Evening Mass of the Lord’s Supper will be observed at 5 p.m., with a **Tenebrae** service at 11 p.m.

On **Good Friday**, April 14, there will be silent hours of prayer from noon to 3 p.m., with the **Celebration of the Lord’s Passion** at 3 p.m. and **Stations of the Cross** at 7:15 p.m.

On **Holy Saturday**, April 15, the **Paschal Vigil Mass** will be held at 9 p.m., with Rev. Peter D. Rocca, C.S.C. presiding.

On **Easter Sunday**, April 16, Masses are scheduled for 8 a.m., 10 a.m. and noon, with a special Mass for Notre Dame students at 9 p.m. For a complete Holy Week schedule, visit <http://www.nd.edu/~bshweb/sched/index.html>.

Let us now praise student workers

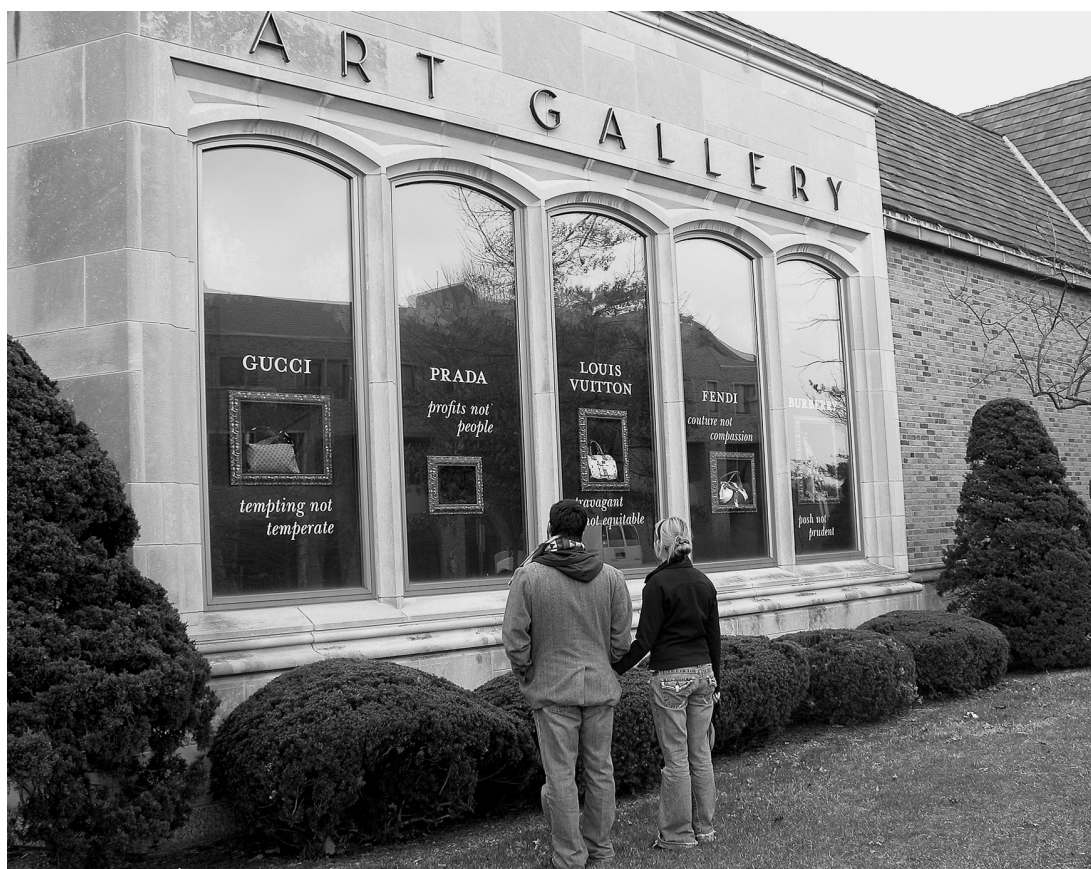
Do you know a graduating senior or graduate student worker who you think has made a lasting impact on the University?

Express your fond farewell by nominating your student to be the subject of a profile in ND Works’ May 8 issue.

The student must be graduating from Notre Dame. Their contribution, over time or in flashes of brilliance, should have caused you to say, “I couldn’t have done this without (him/her)” or “I would never have thought of that.”

We’re looking for office workers, food service help, grounds and maintenance assistants and others who fall under the rubric of paid student help. We welcome, as well, stories of extraordinary undergraduate student

WHAT THEY WERE DOING



Don’t they look like they’re window shopping? Two students examine a senior project by Erin Prill that graces the outside windows of the Snite Museum of Art. Inside, other fellow bachelor’s and master’s degree student projects comprise the annual BFA/MFA Candidates Thesis Exhibition. It opens with a reception from 2 to 4 p.m. on Sunday, April 9 and runs through Sunday, May 21. The show features painting, drawing, photography, three-dimensional installations, video and industrial design projects. **ND Works staff photo.**

DISTINCTIONS

Two housekeeping employees have been honored for outstanding alertness and quick action.

While working in her assigned residence hall on a Saturday morning, **Refija Ibrekic** discovered a student who had become seriously ill. Her immediate call to Security/Police helped guide first-response personnel to the student as quickly as possible.

Kristi Webb discovered that someone had turned on an oven without knowing that another person had left a plastic bowl inside. The bowl caught fire. Webb detected the fire, called the fire department and also put out the fire with an extinguisher.

Alan Bigger, director of building services, presented Ibrekic and Webb with special pins that state “I made a difference,” as well as a framed certificate.

(Editor’s Note: Due to a computer problem, the regular listing of new employees is being delayed until the next issue.)



Ibrekic



Webb

A dream of being a chef



Laura Strunk, chef for Catering...by Design, recently won the National Association of College and University Food Services (NACUFS) Midwest Regional Culinary Challenge, and will advance to the national competition in Toronto this July. *Photo by Carol C. Bradley*

By Carol C. Bradley

When Laura Strunk, catering chef for Catering...By Design, cooks Easter dinner for her family, the dishes tend toward simple things like ham, sweet potato casserole and green bean casserole—things her four-year-old son Seth can help make. She can't convince anyone in the family to eat lamb, but she has introduced asparagus with real hollandaise sauce. Dessert will be Jell-O eggs and a bunny cake. Her family culinary traditions aren't fancy, she says.

"I was the last of six, and Mom didn't do any fancy meals," Strunk remembers. "Lots of goulash."

She won't be making elegant dishes like the one that recently won the National Association of College and University Food Services (NACUFS) Midwest Regional Culinary Challenge—chicken stuffed with smoked gouda, prosciutto and fresh sage leaves, served with a

chicken timbale on a bed of braised black lentils and accompanied by glazed carrots and onions topped with a Sambuca reduction.

The recipe also won Strunk a gold medal from the American Culinary Federation (ACF). Strunk, who will now advance to the NACUFS National Culinary Challenge in Toronto this July, says she couldn't have competed without the support she received from Executive Chef Donald R. Miller. To prepare for the competition, Strunk practiced twice a week, preparing the recipe a total of 14 times with Chef Miller acting as judge. For competition, she was allowed 45 minutes preparation time (including boning the chicken), and 75 minutes cooking time. The competition required four portions of an original hot food entrée, with side dishes and sauces to balance the plate.

Strunk, a Notre Dame employee since 2001 (with a hiatus to care for her son, who was born two months premature) spends her workdays overseeing the food that goes to catered events on campus. In addition to helping develop and test new recipes, she says, "My biggest concern

is quality. My job is mainly planning ahead, so we're prepared and ready for the event." She prepares the flow charts and schedules needed to keep track of events, and does a lot of employee training in sanitation. "Some are new at cooking," she says, "especially in these quantities."

Most of the food for such events is prepared in North Dining Hall, by the same cooks who prepare regular dining hall fare. On a football Saturday, she says, there can be as many as a hundred catered events on campus. Events can range from tailgate parties to weddings, with food needed for groups from 50 to 5,000. And that's in addition to the 1,500 to 2,000 students arriving at mealtimes. "It's challenging," Strunk says.

Cooking is a second career for Strunk, who did stints as the manager of a McDonald's,

then ran a children's clothing store. "I've always liked to cook," she says. "I realized that was what I wanted to do." She's working toward certification as an ACF chef de cuisine, and hopes to complete her training as an executive chef in the next few years. "I was able to realize my dream of cooking, of being a chef," she says.

Notre Dame Food Services is happy to share this recipe, which will be served in the dining halls on Easter Sunday.

Potatoes Tri-Color with Pesto and Parmesan (serves 5 or 6)

Pesto:

2 T. olive oil	½ lb. New Red Bliss potatoes
¼ C. chopped fresh basil	½ lb. Yukon Gold "B" potatoes
2 T. minced shallots	½ lb. purple potatoes
2 tsp. minced garlic	2 T. olive oil
1/8 tsp. salt	¾ tsp. salt
1/8 tsp. ground black pepper	¼ tsp. ground black pepper
	¼ C. grated fresh Parmesan cheese

In a food processor, prepare pesto: add olive oil, basil, shallots, garlic, salt and pepper and process to a puree. Refrigerate until needed.

Wash and eye potatoes and cut in half. Dry well. Place potatoes in a baking pan and toss with olive oil, salt and pepper. Roast at 450 degrees until nicely browned. Add pesto and cheese. Toss until well blended.

FYI

Get office smart

The Department of Human Resources will offer workshops in April on topics ranging from improving writing and interviewing skills to using statistics to make business decisions. Classes take place in room 234, Grace Hall unless otherwise noted. For more information or to register, visit <http://ilearn.nd.edu>.

For those interested in sharpening their business writing skills, **Communication Formatting**, 9 to 11:30 a.m. Wednesday, April 26 (no fee) will offer writing and grammar tips for publications, business documents and personal correspondence.

Behavior-Based Interviewing for the Experienced Interviewer, 8:30 to 11:30 a.m. Tuesday, April 25 (no fee) will help participants develop behavior-based legal interview questions that will lead to an objective assessment of candidates.

Implementing a Practical Metrics Program in an Impractical World, 9 to 11:30 a.m. Thursday, April 20 (no fee) is designed to help management professionals use statistical data to make sound business decisions.

Plan for retirement

Notre Dame employees age 50 and over (and their spouses) are invited to the free workshop **Planning for Retirement—What You Need to Know**, from 8 a.m. to 4 p.m. Tuesday, April 18 in the Center for Continuing Education, McKenna Hall. An overview of Social Security and Medicare benefits will be included. Between 11:30 a.m. and 1 p.m., representatives from TIAA-CREF, Fidelity Investments and The Vanguard Group will be available. To register, contact Christie Scheidel at 631-4489 or scheidel.1@nd.edu.

Toward a healthier you

The South Bend Medical Foundation will conduct **cholesterol screenings** from 7:30 a.m. to 10 a.m. Tuesday, April 18 in room 234, Grace Hall. There is no fee, and advance

registration is not required. A 12-hour fast (no food or drink except water) is required before the test. The screening takes about 10 minutes.

An information session on **Select Your Health—a Health Enhancement Program**, will be held from noon to 1 p.m. Thursday, April 12 (no fee) in room 234, Grace Hall. This program, open to those insured through Advantage Health Solutions, will help participants learn how to enhance health and manage chronic illness with the help of a nurse case manager. Registration is required by April 11.

Another Advantage program, **Select Your Health—Weight Management**, offers an information session from noon to 1 p.m. Wednesday, April 19 (no fee), in room 234, Grace Hall. This program is designed to help participants lose weight under the care of their personal physician and a nurse coach. Those insured with another health plan may enroll in the weight loss program for a nominal monthly fee. Registration is required by April 17. To register for either of these programs, visit <http://ilearn.nd.edu>. Those without computer access may register by contacting Jessica Lambourne at 631-5777.

Helping shy children

Psychologist John Petersen will discuss **"Kids Who Can't..."** and explore way to boost confidence in children from 6:30 to 7:30 p.m. Tuesday, April 18 (no fee) at the Early Childhood Development Center (ECDC) at Notre Dame. Registration is required by April 17 at <http://ilearn.nd.edu>.

Lace up, tone up

RecSports' series of free workshops continues with **Finding the Right Athletic Shoe**, 6 p.m. Tuesday, April 11 at Rolf's Sports Recreation Center. The session will help you learn what to look for when choosing among the many styles of athletic shoes available. Tone Up! 101, 5:30 p.m. Thursday, April 20 at RSRC, offers an exercise routine that can be done at home incorporating simple equipment such as stretch

bands and dumbbells. Participants will receive a free copy of the booklet **"Take Out Workout."**

Drop-in activities, including volleyball, lacrosse, badminton and floor hockey are available at RSRC through the end of the academic year. For a complete schedule, visit recsports.nd.edu and look under programs—informal.

A **Lifeguard Recertification** class will be held from 7 to 10 p.m. Thursday, April 27 and 9 a.m. to 3 p.m. Saturday, April 29 (\$45) at the Rockne Memorial Pool. **Lifeguard Waterfront Supervision** will be offered from 7 to 10 p.m. on Tuesday, May 2, and Thursday, May 4 (\$15) at the Rockne Memorial Pool. Registration for both classes opens at 8 a.m. Monday, April 10 at RSRC.

Erhu, piano and all that jazz

The Marie P. DeBartolo Center for the Performing Arts presents **Xiaohui Ma: Erhu: Holding**

Hands with the World at 7:30 p.m. Wednesday, April 12 in the Leighton Concert Hall. The award-winning artist will perform on the erhu, a 1000-year-old Chinese stringed instrument. Ma will perform both traditional Chinese music and Western classical music, accompanied by yangqin musician Boer Pang, percussionist Zekrollah Aflatuni and pianist Jacqueline Schmidt. Tickets are \$15 for faculty, staff and senior citizens, \$10 for students.

Xiaohui Ma will return to the performing arts center at 7:30 p.m. Thursday, April 20 for a Solo Erhu Recital in the Reyes Organ and Choral Hall. Tickets are \$15 for faculty, staff and senior citizens, \$10 for students.

The Notre Dame Department of Music presents a **Faculty Piano Recital** by John Blacklow at 8 p.m. on Wednesday, April 19 in the Leighton Concert Hall. Blacklow has performed in many of the world's most renowned concert halls both as a soloist and a chamber musician,

with recent performances in Athens, Brussels, Paris, Venice, Zurich and Seoul. Tickets are \$8 for faculty and staff, \$6 for senior citizens, and \$3 for students.

The hard-swinging **Bill Charlap Trio** will be in concert at 8 p.m. Friday, April 21 in the Leighton Concert Hall. Pianist Charlap, accompanied by bassist Peter Washington and drummer Kenny Washington, will interpret the Great American Songbook in new and surprising ways. Tickets are \$26 for faculty, staff and senior citizens, \$15 for students.

The **Notre Dame Choral and Chamber Orchestra Spring Concert** will be held at 8 p.m. on Saturday, April 22 in the Leighton Concert Hall. Tickets are \$8 for faculty and staff, \$6 for senior citizens and \$3 for students.

For information or to purchase tickets for these and other upcoming events at the performing arts center, visit <http://performingarts.nd.edu> or call the box office at 631-2800.

FROM THE ARCHIVES



Students have been singing, dancing and otherwise performing since the 19th century. This photo recalls a 1958 student production of "Oklahoma," with Jim Cooney as Ali Hakim, Pat Wilson as Gertie Cummins, and Barbara Benford as Ado Annie Carnes. The Rodgers and Hammerstein classic premiered on Broadway in 1943. *Photo provided by Elizabeth Hogan, University Archives.*

BACK STORY



Old City Jerusalem teems with life. Though it is administered in quarters defined by religion, peoples mingle as seen in the Muslim Quarter pictured above.



Few things that are labeled “peace” in this region carry messages of non-violence. The Wall—its very name controversial, as the official Israeli term is separation fence—photographed near Tantur.

Images of peace and discord

When the Joan B. Kroc Institute for International Peace Studies scheduled a spring-break conference at Tantur Ecumenical Institute, Israel, on the contestation of sacred sites, Martha Merritt offered to bring a camera.

Merritt, associate director for international programs at the institute, returned home with images of hope from the region and a few that illustrate the long road ahead. These are her pictures and captions.

Right: An ancient olive tree, replanted in Manger Square in Bethlehelem, bears a plaque saying that it was uprooted by the building of the Wall.



Left: Schoolchildren sing in front of Al-Aqsa mosque on the Dome of the Rock, a sacred site for the Ibrahimic faiths of Judaism, Islam and Christianity.



Right above: Martha Merritt chats with students at Bethlehem University, a Catholic institution with mostly Muslim students.



Above: Members of the Kroc Institute during the first day of visits to sacred sites. From left are Asher Kaufman, assistant professor of history; Joyce Dalsheim, visiting fellow; Rashied Omar, coordinator of the Program on Religion, Conflict and Peacebuilding.



Rev. Peter-John Pearson of South Africa, an anti-apartheid activist who attended the Kroc conference, chats with Palestinian children during a visit to Hebron.

Continuing the Tantur legacy

ND Works staff writer

When a cross-section of Christian, Muslim and Jewish scholars assembled in mid-March in the Tantur Ecumenical Institute, they were fulfilling precisely the mission for which Notre Dame started the facility in Israel.

The conference, sponsored by the Joan B. Kroc Institute for International Peace Studies, is also the type of activity that University President Rev. John I. Jenkins, C.S.C., hopes to see occur with greater frequency.

Located though it is in a place of religious conflict, Tantur also rests on Vatican soil and in the Holy Land, and it epitomizes one of the most meaningful partnerships between Notre Dame and the Catholic Church, explains Rev. James McDonald, C.S.C., senior executive assistant to the president, who attended some of the conference.

The Vatican purchased the Tantur site under Pope Paul VI, who asked then-President Rev. Theodore M. Hesburgh, C.S.C., to establish a scholarly center. The center’s mission emphasizes building unity and interchurch harmony among Christian religions and exploring the relationships between Christianity and other world faiths, especially Judaism and Islam. Seeking peace and justice through theological study, and by exploring human rights and conflict resolution, also is part of Tantur’s mission.

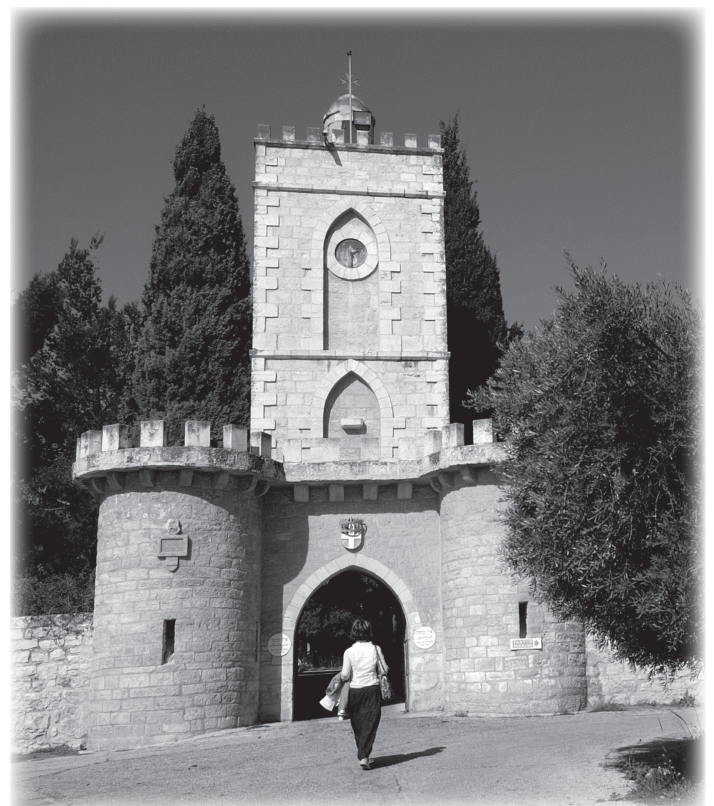
The Vatican leases the land to Notre Dame; Father Hesburgh and benefactors saw through the construction of the facility. Designed by the late Notre Dame architecture professor and department chair Frank Montana, Tantur opened in 1971. The vast and accommodating structure includes one of the finest libraries in the Middle East, with 80,000 volumes, Father McDonald says. (The center’s history and amenities are explained in detail at <http://www.nd.edu/~tantur/>.)

“This is a wonderful example of the Catholic Church’s proactive efforts to heal the divisions between Christians and to promote understanding among Christians, Jews and Muslims,” Father McDonald says.

The center is a working conference facility that has accommodated scholars from all parts

of the globe. Notre Dame’s Department of Theology hosts conferences about ecumenism on the site, and it is a natural facility, as the Kroc discovered, to discuss conflict resolution.

Other departments and divisions are welcome to consider the conference, “especially on the themes of ecumenism and religious dialogue,” Father McDonald says. “We are one of the few presences there with that mission.”



The lavender gardens at Tantur were in full bloom during the Kroc Institute’s conference; a conference participant walks through Tantur’s entrance.