

Strategic projects broaden research agenda

10 projects chosen for Round II SRI funding

BY GAIL HINCHION MANCINI, DIRECTOR OF INTERNAL COMMUNICATIONS

Ten projects with potential to transform the University's research profile have been selected for Round II funding from the Strategic Research Investments (SRI) program. Collectively, the initiatives will pursue safer, cleaner energy sources, develop smarter ways to respond to environmental challenges, advance safe nanoscience solutions, address cures for disease and examine how Muslims and Roman Catholics interact with modern secular institutions.

The projects were selected by the 17-member Strategic Academic Planning Committee, which reviewed some 45 concept proposals. Provost Tom Burish announced the new recipients at the end of last semester. Between these grants and a first round of SRI funding announced in 2007-08, the University has committed approximately \$80 million to support and expand research in ways that complement the University's mission.

More than 70 faculty members from the colleges of arts and letters, science, engineering, law and architecture are engaged in these projects, many of which plan to build ties with Innovation Park. "These proposals illustrate how readily Notre Dame researchers form collaborations to pursue new research initiatives. These initiatives are examples of building on the strength of current Notre Dame scholarship a more advanced concept, as well as teams that are testing promising new ideas.

For example, the Kroc Institute will broaden its agenda with **"Contending with Modernity: Islam and Roman Catholicism in a Secular Age."** The project proposes to examine how followers of the world's two largest religions negotiate the challenges of modern times and address critical issues such as sustainable economic development, conflict resolution, political changes and stewardship of the environment.

Principal investigator **Scott Appleby's** goal is a sophisticated understanding of the conditions under which religious and secular forces attract, repel and sometimes collaborate with one another. Focusing on Muslims and Catholics, the project will search for shared experience, challenges shared by what Appleby describes as "global, monotheistic, evangelical mission-centered traditions."

The project will assemble teams of scholars specializing in one of the two religions to focus on a topic of interest to both communities. Also engaged in the project are Doug Archer, Lance Askildson, Robert Dowd, Patrick Gaffney, Cathleen Kaveny, Paul Kollman, Alan Krieger, Sabine MacCormack, Patrick Mason, John McGreevy, Gerald McKenny, Jean McManus, Mahan Mizra, Mark Noll, Mary Ellen O'Connell, Omar Rashied, Atalia Omer, Daniel Philpott, Jerry Powers, Vincent Rougeau, Emad Shahin, Christian Smith, Jason Springs, Lawrence Sullivan and Todd Whitmore.

Participants of the **Sustainable Energy Initiative (SEI)** propose to establish ND as a leader in developing safer nuclear energy, designing cleaner fossil fuel processes and creating transformative solar energy technology. SEI's work will develop five new facilities to support energy research: a materials synthesis and characterization facility, laboratories for safer nuclear and cleaner fossil fuels, a solar testing laboratory and an integrated materials simulation facility. Undergraduate and graduate students will be highly involved and prepared as the next generation's energy leaders.

Joan Brennecke, Keating-Crawford Professor of Chemical Engineering, is lead investigator, and Kenneth Henderson, chair of chemistry and biochemistry, is associate director. They will be joined on this project by Thomas Albrecht-Schmitt; Seth Brown, Bruce Bunker, Peter Burns, Ian Carmichael, Steven Corcelli, Jeremy Fein, Daniel Gezelter, Gregory Hartland, Prashant Kamat, Masaru Kuno, Alexander Lappin, Jay LaVerne, Edward Maginn, Paul McGinn, William Schneider, Slavi Sevov, Mark Stadtherr and Eduardo Wolf.

Readily available, inexpensive, non-polluting energy also is foreseen in two proposals submitted by aerospace engineer Thomas Corke and Gregory Hartland of chemistry and biochemistry.

Corke's proposed Center for Enhanced Wind Energy Design (eWiND) will develop next-generation wind energy efficiencies. The technology to be developed would improve efficiency and reduce energy generation costs for wind turbines from megawatt wind farms to urban micro-generators. White Field will host experimental wind turbines that will welcome research projects by pre-college, undergraduate and graduate researchers, and Innovation Park resources will help move the concept toward commercial technologies.

Hartland's concept, called Nano Solar Cells, proposes to develop a cheap, highly efficient source of electricity that will capture and conserve solar energy. Hartland's proposal describes the development of highly efficient solar cells using new concepts from nanotechnology. The plan includes developing a startup company in Innovation Park, where the work of fellow chemists Prashant Kamat and Masaru Kuno on nanocrystal solar cells also would be commercialized. Hartland is leading a team that also includes Gregory Crawford, Libai Huang and Paul McGinn. Their colleague in chemistry and biochemistry, Paul Huber, proposes



Kasturi Haldar, at right, director of the Center for Rare and Neglected Diseases, and Jeff Schorey, associate professor of biological sciences, are working to create treatments for diseases such as Huntington's disease and Niemann Pick.

that, as nanotechnology proliferates, science needs to ask hard questions about whether solutions will have unintended toxic effects on living creatures. "Nanoparticle Toxicity" will develop a comprehensive program for testing toxicity of nanoparticles using frogs, zebrafish and flies to detect developmental defects. The SRI grant will allow him and his academic partners to assemble the equipment and expertise and identify a sample of environmentally significant nanomaterials in need of testing. The goal is to develop a protocol to identify and characterize whether new materials are safe for nanomedicine, bioremediation and other applications that impact the environment. Co-collaborators are Michael Ferdig, Holly Goodson, Amanda Hummon, David Hyde, W. Matthew Leevy, Patricia Maurice and Joseph O'Tousa.

Initiative (ND-ECI) proposes to further integrate Notre Dame's environmental research on the topics of climate change, invasive species, water quality and land use to address large-scale issues in a cultural, social and religious context with partners from industry, government and nongovernmental organizations. The big-picture approach proposed by biologist David Lodge seeks to identify solutions that minimize the trade-offs between human welfare and environmental health where trade-offs are unavoidable. In agriculture, for example, ND-ECI would address needs for food and energy and the indirect impact those pursuits have on ecosystems. It would examine how to address global trade while preventing the further introduction of invasive species. ND-ECI researchers also would develop tools to measure impact Continued on page 4

to advance the reputation of the University," said Robert Bernhard, vice president for research. Each proposal's principal leader has gathered from four to 40 team members.

The proposals share in common bold ideas that would position Notre Dame as a leader in addressing some of the most interesting and important issues facing scholars. Proposal funding will support groups that are consolidating well-developed Notre Dame research initiatives into

The ND Environmental Change



NEWS BRIEFS

BASILICA MUSIC DIRECTOR GAIL WALTON DIES AT 55

Battled leukemia

The University community is saddened by the death of **Gail Walton**, 55, director of music at the Basilica of the Sacred Heart.

Says Rev. Peter Rocca, C.S.C., rector of the Basilica, "This bright, articulate and gracious woman, whose enthusiasm, dedication, professionalism, selfless energy and humility enriched beyond measure our liturgical life in the Basilica and beyond, will be sorely missed."

Walton died Wednesday, Feb. 24, at the Indiana University Medical Center in Indianapolis, after a long battle with leukemia.

She had served as director of music at the Basilica since 1988, and directed the Liturgical Choir as well as the Basilica Schola, which she founded in 1989.

In addition to her work and ministry at the Basilica—helping couples prepare for their weddings and grieving families plan funerals—Walton performed widely as a soloist; she frequently played duo recitals with her husband, organist and Notre Dame music professor Craig Cramer.

During the eight years the 10 a.m. Mass was televised to a national audience, Father Rocca notes, Walton became a recognized friend to many of the nearly 1.75 million viewers who tuned in each week.



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EDUCATOR APPRECIATION WEEK AT BORDERS

Discount for current, retired educators

Bring your valid Notre Dame I.D. card to Borders Books and Music March 19 to 27 and receive a 30 percent discount on purchases.

"IS RELIGION THE PROBLEM?"

Athiest, Catholic debate

Famed atheist **Christopher Hitchens** and esteemed Catholic apologetic **Dinesh D'Souza** debate from 7:30 to 9:30 p.m. Wednesday, April 7, in the Leighton Concert Hall, DeBartolo Performing Arts Center.

Tickets are free to Notre Dame, Saint Mary's and Holy Cross students, faculty and staff for a limited time. Present a valid I.D. card at the performing arts center ticket office from noon to 6 p.m. from Wednesday, March 24 through Friday, March 26. On Saturday, March 27, remaining tickets go on sale to the general public for \$10.

ANNUAL ASIAN FILM FESTIVAL AND CONFERENCE

Showcasing contemporary Asian filmmaking

The annual Asian Film Festival brings five contemporary films to the DeBartolo Performing Art Center's Browning Cinema Friday and Saturday, March 19 and 20. Friday's films include Koryo Saram: The Unreliable People at 6:30 p.m. and Cape No. 7 at 9 p.m. On Saturday, documentaries Children in Heaven and Malakacaway-The Rice Wine Filler will be screened at 3 p.m., followed by Chicken Poets at 8 p.m. Films are free but ticketed. Contact the ticket office at 631-2800 to reserve tickets. At 4:45 p.m. Saturday, March 20, an academic panel discussion, "Asia in Films: Exploring Cultural Identities," takes place in the Browning Cinema. The event is free and open to the public.



IRISH DANCERS TAKE THE TROPHY

The Notre Dame/Saint Mary's Irish Dance Club brought home the championship trophy in the Ceili Club Championship at the 2010 All-Ireland Dancing Championships in Killarney, Ireland. This was the first time the ND/SMC club has sent a ceili (eight-member dance team) to the competition. The club was the only American team—and only college—team to participate. The 50-member club performs at a variety of events on both campuses.





Arts and Letters website part of a larger strategic vision



University sites aim to reach audiences, create synergies

BY BILL SCHMITT, NDWORKS

The College of Arts and Letters launched a new website last semester at **al.nd.edu**, capping nine months of work on design and initial content but also acknowledging that, in some ways, the work has just begun.

That's because it's part of a broader, strategic vision of a family of College websites—different voices, different audiences, all aiming for smarter synergies over the long haul, says the College's director of communications, Marie Blakey.

"We consider this a 'trampoline' site," Blakey says of the College's new virtual presence. In many cases, visitors to the site will want to bounce quickly to the sites of more than 20 departments or more than a dozen centers and institutes under the Arts and Letters umbrella.

Among the many audiences visiting **al.nd.edu**, some, like current undergraduates discerning their majors and prospective students making their university selections, will value the Arts and Letters site as a first step for general knowledge: What majors and minors are offered, for example, and what special resources are available?

But Blakey says it's often the departments and centers whose sites can give potential graduate students and faculty members the more detailed information they need about current faculty or original research being conducted in particular disciplines. These smaller units also have a more focused "community affinity," fed by the events, activities and ongoing initiatives within each discipline.

Visit **reilly.nd.edu**, the new website of the John J. Reilly Center for Science, Technology, and Values, as an example of a website that fits under the Arts and Letters umbrella but is also broad enough to encompass other stakeholders. The site describes educational programs and research initiatives that connect not only across the Arts and Letters disciplines, but also with the College of Engineering, the College of Science, the Mendoza College of Business and the Law School. This kind of instinct for interdisciplinarity—which also fuels Notre Dame's drive to create new knowledge and make a difference in the world—is helping to broaden and connect more of the websites under the College and University umbrella.

NDWorks, Notre Dame's faculty and staff newspaper, is published by the Office of Public Affairs and Communication. The views expressed in articles do not necessarily reflect the views of ND Works or the administration. NDWorks is produced semimonthly during the academic year when classes are in session, and monthly during June and July. Online PDF versions of past NDWorks can be found at **nd.edu/-ndworks**. Submit story ideas, questions and comments to **ndworks@nd.edu** or contact Carol C. Bradley, 631-0445 or **bradley.7@nd.edu**.

The deadline for stories is 10 business days before the following 2009-2010 publication dates: July 23, Aug. 13, Aug. 28, Sept. 10, Sept. 24, Oct. 15, Nov. 5, Nov. 19, Dec. 10, Jan. 7, Jan. 28, Feb. 11, Feb. 25, March 18, April 8, April 22, May 6, May 20, and June 17.

GREEN SUMMIT

Executive Chef Don Miller spoke to students, faculty and staff at the third annual Green Summit, held in late February in the Joyce Center's Monogram Room. Participants rotated through four tables—each with discussion topics including local food, food waste, sustainable seafood and food and climate change—and sampled "low-footprint" dishes from the Notre Dame Food Services menu. Web technology itself is allowing users to get and pass along information more easily. In addition to bookmark and share features, for example, the new Arts and Letters site features a number of event subscriptions and news feeds.

With help from analytics services that scrutinize user traffic, organizations will also be able to shape their website content and to meet ever-evolving needs and expectations.

Speaking of updating content, the world has embraced Twitter as a tool for speeding up that phenomenon to suit our fast-paced taste. A number of University units have plunged into that arena of the speedy and succinct. Now, there's a brand new central directory for those immersed in the matrix of messages, those poised to beat a hasty retweet. Go to **twitter.nd.edu** to see a spectrum of Notre Dame feeds, spanning the worlds of academia, alumni, athletics and more.

Women Writers Festival features Lorrie Moore

Event focuses on the short story and its interplay with other genres

BY CAROL C. BRADLEY, NDWORKS

The third annual Notre Dame Women Writers Festival, sponsored by the Department of English, takes place Tuesday and Wednesday, March 23 and 24, in McKenna Hall. All events are free and open to the public.

This year's festival features Lorrie Moore, whose novel "The Gate at the Stairs" was named one of 2009's best works of fiction by the New York Times Book Review, and Frances Hwang and Lolita Hernandez, both

recent winners of the PEN Beyond Margins Award.

The festival begins with a public welcoming reception in the McKenna Hall atrium at 6 p.m. Tuesday, March 23, with a reading by Lorrie Moore at 7 p.m. followed by a book signing.

Wednesday's events begin with a panel discussion with the three writers from 3 to 4:15 p.m. Readings by Frances Hwang and Lolita Hernandez begin at 7:30 p.m., followed by a book signing and public reception.

"It's a wonderful chance to see a group of contemporary writers who I think will be able to play off each other in an interesting way," says Valerie Sayers, professor of English.

One of the reasons the festival was started, she notes, is that there had been a historical imbalance between male and female writers who have visited campus.

The invitation to three prominent female writers, Sayers says, sends a crucial message-that the department is committed to bringing distinguished women writers to campus, and to giving students the chance to enter a significant literary dialogue with them.

"We've also had a great mix attending the festivals," she adds, "including staff, townspeople, male undergrads and faculty. We think of it as a big cultural event for the whole community."



Moore

A celebration of Notre Dame poets

Events include panel discussions, readings

BY CAROL C. BRADLEY, NDWORKS

The Open Light, a three-day celebration of Notre Dame poets, takes place Monday, March 29, through Wednesday, March 31. All events take place in McKenna Hall Seminar Rooms 100-104.

The event, sponsored by the Creative Writing Program and the Department of English, features readings by 11 poets who are either faculty members or graduates. Presenters include Jenny Boully (MFA 2002), Kimberly Blaeser (Ph.D. 1990), and professors Jacque Vaught Brogan, Henry Weinfield, John Wilkinson, Joyelle McSweeney, Cornelius Eady and Orlando Menes.

The conference title, "The Open Light," is taken from a poem by Cornelius Eady and serves as a metaphor for the explosion in diversity that has taken place since the last festival of Notre Dame poets in 1991. A volume of poetry, "The Open Light: Poets from Notre Dame, 1991-2007," will be published by the University Press in 2011.

MONDAY, MARCH 29

- Jenny Boully, Beth Ann Fennelly and Kimberly Blaeser read 3 p.m. from their work, with a reception and informal conversation to follow.
- MFA students present papers and read from "The Open Light." 5 p.m. Joyelle McSweeney, Robert Archambeau and Cornelius Eady 8 p.m. will read.

TUESDAY, MARCH 30

- Poets Francisco Aragón, Jacque Vaught Brogan and John 3 p.m. Wilkinson will read
- 4:30 p.m. MFA student paper presentations and readings from "The Open Light."
- Henry Weinfield, Orlando Ricardo Menes and Mary 8 p.m. Hawley will read.

WEDNESDAY, MARCH 31

10:30 a.m. Panel discussion on poetry and poetics. 1:30 p.m. Panel discussion on the poetic vocation and the poet's education.

Mendoza College of Business ranked No. 1 by Bloomberg **BusinessWeek**

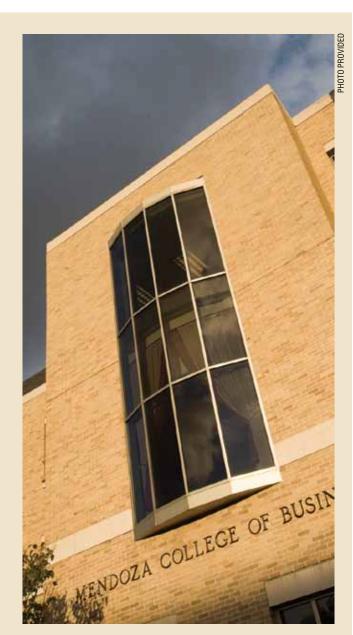
Also earned 'A+' in teaching quality

By Carol Elliott, Mendoza College of Business

The University of Notre Dame's Mendoza College of Business jumped to the top spot on Bloomberg BusinessWeek's fifth annual ranking of "The Best Undergraduate Business Schools." The ranking was announced March 4.

"At Notre Dame, our mission is to prepare students to lead in an ethical manner through the exercise of personal integrity, the ability to forge work environments that promote right actions, and leadership for generating both economic and social value," says Carolyn Y. Woo, the Martin J. Gillen Dean of the Mendoza College. "This is a tall order. The world needs it, our students deserve nothing less, and our work is never done on this regard."

Notre Dame also earned the No. 1 spot in the student ranking, and "A+" in teaching quality, facilities and services, and job placement.



Going for great, again

All events are free and open to the public. A full schedule of events is posted on the Creative Writing Program's web page, nd.edu/~alcwp/activities.html.



Jenny Boully

Faculty, staff will be tapped for input on Chronicle survey

BY GAIL HINCHION MANCINI, DIRECTOR OF INTERNAL COMMUNICATIONS

The University will again enter the Chronicle of

assessment, the Chronicle program

singled out Notre Dame for fac-

ulty and staff commitment to the

University's mission, the high quality

of its teaching environment, facilities

Higher Education's "Great Colleges to Work For" assessment, which last year designated Notre Dame among the Top 10 collegiate work environments. In last year's

THE CHRONICLE

VOR

from ModernThink. The survey is estimated to take 20 minutes.

"We hope that every faculty and staff member who receives the survey will take the time to complete it,"

and benefits, and overall job satisfacsays Bob McQuade, associate vice president of human resources. "Your tion. The results are accessible on the candid response will provide us with Chronicle's website, chroniclegreatuseful insights about how you perceive Notre Dame's commitment to a

> The University measures employee satisfaction among staff every two years through ND Voice. One additional element of the Chronicle assessment that provides great value is that it incorporates the insights of faculty, says McQuade. As the University participates in the process year after year, the ModernThink results will help measure potential improvements and areas that need further attention.

Since the Chronicle began the survey three years ago, the annual event has attracted a growing number of voluntary participants. "Our place among the Top 10 is not assured, particularly since we anticipate more competition," McQuade said.

A major aspect of the assessment quality work experience." program is a survey on the workplace environment conducted by ModernThink, a human resource consulting group that partners with

the Chronicle on the project.

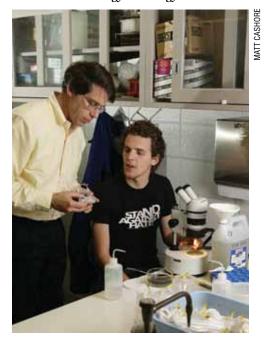
Some 500 to 600 faculty and staff will be randomly selected to participate in the confidential survey. In mid-March, those who are selected will receive the online survey via e-mail

places.com.

Strategic projects broaden research agenda



Joan Brenneke, center, is lead developer on a project designed to establish Notre Dame as a leader in developing safer nuclear enery, cleaner fossil fuels and better solar energy technology.



Biologist David Lodge, at left, and IE academic partners will seek to identify solutions that minimize trade-offs between human welfare and environmental health through the ND Environmental Change Initiative.

across regions, or to measure change in real time. In addition to Lodge, ND-ECI will engage Mark Alber, Elizabeth Archie, Gary Belovsky, Edward Bensman, Dave Brenner, Alejandro Comacho, Hsueh-Chia

Chang, Nitesh Chawla, Anne Coleman, Jon Coleman, Jessica Collett, Robert Dowd, Jeffrey Feder, Jeremy Fein, Michael Ferdig, Agustin Fuentes, Thomas Gresik, Chris Hamlin, Jessica Hellman, Hope Hollocher, Gary Lamberti, Michael Lemmon, Molly Lipscomb, Grey Madey, Patricia Maurice, Gerald McKenny, Jason McLachlan, Chongzheng Na, Jaroslaw Nabrzyski, Robert Nerenberg,

Michael Pfrender, Steve

Ruggerio, Mark Schurr, Kristin Shrader-Frechette, Steven Silliman, Dave Severson, Jennifer Tank, Carol Tanner, Zolton Toroczkai and Joannes Westerink.

Hurricane Katrina and other natural disasters have taught a painful lesson about how poorly prepared society is to understand or cope with these events. To civil engineer Tracy Kijewski-Correa, too little has been done since Katrina to foster understanding of the broad-reaching impact of such natural disasters, or to educate communities about mitigating the impact on people and the ecosystem. Her proposal outlines CYBER-EYE: A Cyber-Collaboratory for National Risk Modeling and Assessment to Mitigate the Impacts of Hurricanes in a Changing Climate.

Among problems CYBER-EYE would address: updating damage projections based on increased frequency and intensity of hurricanes regionally, nationally and internationally. The project also would aim to educate the next generation of workforce and national leaders about investing in hazard-resilient and sustainable communities. In Kijewski-Correa's words, "By working in a spirit of true collaboration to mitigate the effects of these disasters altogether, Notre Dame can place herself at the 'eye of the information hurricane."

CYBER-EYE will draw on the expertise of Thomas Corke, Harindra Joseph Fernando; Kareem Ahsan, Andrew Kennedy, Kapil Khandelwal; Gregory Madey, Scott Morris, Alexandros Taflanidis, Joannes Westerink, Zhiliang Xu and Yongtao Zhang.

A proposal by biologist Jessica Hellman assumes that even if ideas



Aerospace engineer Thomas Corke's research will develop next-generation technology to reduce energy generation costs from wind farms to microgenerators.

for lower emissions take hold, current levels of greenhouse gases are forcing species to adapt to significant climate change in ways that science, the public and policymakers do not yet recognize. Hellman's proposal would establish the Notre Dame Collaboratory for Adaptation to Climate Change. An accomplished biologist in this emerging field, Hellman's vision would include political science, law, computer science and sociology to ask how an expert opinion, policy and decision-making frame can influence the adaptation process. Hellman's colleagues are Nitesh Chawla, Debra Javeline, Omar Lizardo, Jason McLachlan, Kevin Bowyer and Gregory Crawford.

Kasturi Haldar, director of the Center for Rare and Neglected Diseases, is developing new treatments for rare diseases. Such treatments are likely to be ignored by the large pharmaceutical companies for lack of a viable business case. Her team is dedicated to identifying drugs and protein therapeutics for diseases such as Niemann-Pick and Huntington's disease.

Bohlson, Matthew Champion, Patricia Champion, Hsueh-Chia Chang, Greg Crawford, Crisyln D'Souza-Schorey, John G. Duman, Michael Ferdig, Malcolm Fraser, Holly Goodson, Paul Helquist, Jesus A. Izaguirre, Shaun Lee, Mary Ann McDowell, Zachary Schafer, Jeffrey Schorey, David Severson, Robert Stahelin, Rev. Thomas Streit, C.S.C., Zoltan Toroczkai, Kevin Vaughan, Peter Velazquez and Olaf Wiest. Having successfully identified a genetic means for suppressing

engage Edward Bensman, Zihni

Bilgicer, William Boggess, Suzanne

Dengue fever in carrier mosquitoes, Malcolm Fraser will experiment in using similar genetic solutions to treat HIV-AIDS and Hepatitis C viruses in infected individuals in a project called "Transgenic HIV and HCV Antiviral Strategies." Over time, Fraser would see the project expanded to develop vaccines and other treatments for a variety of viruses. Joining Fraser is Paul Huber, Jeffrey Schorey, Michael Ferdig and Mark Suckow.

As needed, the project also will

Supporting scholarship: The Center for Social Research

A natural fit with the mission of the University

BY JOSH STOWE, COLLEGE OF ARTS AND LETTERS

A Notre Dame professor analyzes the resilience of the human spirit in war-torn, poverty-stricken Uganda. A graduate student explores a collection of charter schools to determine how teachers' networking affects their as they work to solve social problems and gain important insights into the human condition-and, as such, is a natural fit with the University's mission."

Christian Smith, William R. Kenan Jr. Professor of Sociology and the CSR's director, says the center will help improve the quality and efficiency of social research on both large and small projects by providing ongoing support for data collection, can assist in developing an appropriate research design to ensure that the data collected meet the needs of the preferred statistical methods. The staff can also design custom methodologies, field inquiries related to quantitative methods, and draft methodological notes for inclusion in journal articles, books and other publications.

Survey research services include assistance in designing survey

"We want to be a resource of first resort for all social researchers," Mueller says. "If your inquiry is something

we can't handle, we will do our best to refer you to other resources within or external to the University."

FROM THE ARCHIVES



classroom performance. And a group of faculty and staff helps a national organization assess and re-design the training it offers to managers.

All three efforts are among the social research projects the University supports through Strategic Research Investments (SRI) grants to the Center for Social Research (CSR), which is online at **csr.nd.edu.** The new center aims to help University faculty, students and staff of all disciplines who conduct research on social questions.

"Supporting the research activities of our faculty is a key priority of the University of Notre Dame, and the new Center for Social Research is an important part of this investment," says Robert J. Bernhard, the University's vice president for research. "I am particularly pleased that this new center will be focusing its work on projects that deal with social research. It will assist our faculty and students

management and analysis.

"Faculty and students use a host of tools to gather and analyze the data on which they build their social research projects," Smith says. "The Center for Social Research was founded with these scholars and their research needs in mind. Its expert staff can assist with the entire process, from research design to datasets acquisition and management, statistical problem solving and grant budget administration."

The CSR supports scholarship across a research project's life cyclefrom grant proposal development to publication. In so doing, it offers four core services: statistical consulting, survey research, data management and grant administration.

Statistical services include everything from statistical software troubleshooting to complex research design, says Kate Mueller, the CSR's associate director. The center's staff

instruments, developing appropriate sampling frames, facilitating the deployment of surveys and developing appropriate weights for the collected data. The CSR, Mueller says, can deploy web-based surveys to a defined population and also help to identify and work with vendors that offer samples or specialize in telephone and/or face-to-face interviews.

Data management services support the analysis required for both quantitative and qualitative social research. CSR staff can assist with acquiring datasets, managing data collection efforts, conducting appropriate analyses and diagnostics, and archiving data for future use by other researchers.

Finally, Mueller says the center can facilitate researchers' compliance with the financial reporting associated with research grants. CSR staff can make budget projections, coordinate financial data and prepare financial reports required for compliance.

A Victorian-era dorm room: Student Elmer Scherrer's room in Sorin Hall, photographed in the 1890s.

Call center reaches out to touch alumni

Student callers are trained to leave a positive impression

BY GENE STOWE, FOR NDWORKS

Five nights a week, two shifts of 20 students each reach out and touch Notre Dame alumni, parents and friends from a call center on the third floor of Grace Hall. The operation is part of the Annual Fund, directed by Nick Farmer.

On a typical night, students call some 4,000 people, with more than one-third of those they reach making pledges to support the University.

"They reach out to more alums than any other department on campus," says Laura Fischer, assistant director of the Annual Fund, who manages the call center.

"Even if a call doesn't result in a pledge, it's important to have a positive impact so they leave feeling good about Notre Dame," she says. "It's not always a pledge but it's always a great phone call."

A program called SmartCall does the dialing and displays information about the person being called. Alumni often like to chat about the caller or what's happening on

campus. Calls typically last for just a couple of minutes.

The center hires some 90 students at \$8 an hour. The hiring process starts with a telephone interview to gauge skills, followed by an in-person interview, several training classes and two mock-calling sessions-one to test technical skills and the other to test their ability to answer objections.

Sarah Schmall, the call center's program manager, was a student caller as an undergraduate. "You don't realize the breadth of the operation when you're a student," she says.

"The majority of the students that come in here are pretty passionate about Notre Dame," Schmall says. "For me personally, it was a great excuse to talk to people about the university I love so much."

Executive Vice President John Affleck-Graves dropped by recently to thank the students for their work and affirm its importance for the University, not only in fundraising but also in ongoing contact.

The center, established in 1987, operates 5:30 to 9:30 p.m. Sundays, 6:30 to 10:30 p.m. Mondays through Wednesdays and 7 to 9 p.m.

At left, John Affleck-Graves, executive vice president, dropped by the call center recently to thank student staffers for their work and affirm its importance to the University—both in fundraising and maintaining contact.

Below, two shifts of 90 students staff the Call Center on evenings and weekends.

Thursdays, with later calls coordinated to Western time zones. It runs in the spring and fall semesters, and sometimes in the summer.

Even in a difficult economy, a high percentage of people find ways to give. "We hear people say 'unfortunate-

ly I can't contribute," says Fischer. "For the most part, I would say the Notre Dame constituents are very loyal. Even if they can't give what they've given in the past, a lot of them are trying to make some kind of gift."





COLLEGE OF SCIENCE

QuarkNet event brings students together

Outreach brings particle physics to high-school students

BY GENE STOWE, FOR NDWORKS

The Particle Physics Masterclass at the Robinson Community Learning Center (RCLC) in late February attracted more than 140 St. Joseph's High School sophomores and juniors—up from eight participants two years ago and fewer than 30 last year. The RCLC shares a building with the QuarkNet Center, the U.S. sponsor of the international initiative.

South Bend students shared data and dialogue via a video link with students gathered at the University of Vienna and the University of Cincinnati, with moderators at Fermilab near Chicago.

Kenneth Cecire, of QuarkNet, who facilitates Masterclass in the United States, was at Fermilab during



the morning-long event. QuarkNet leaders Patrick Mooney and Tom Loughran, who also teaches science research at St. Joseph's High School, helped lead the event.

Dan Karmgard, a Notre Dame physics professor who does research with the Compact Muon Solenoid (CMS) at CERN, led a discussion on how to identify different events based on such data as momentum and energy levels before the global videoconference.

"In the end, we don't really know a lot of stuff. We compile a bunch of statistics," he told the students. "For an individual event, no one knows exactly what it is. We're going to take your results and they're going to be statistically combined with the results of other students around the world."

The students, mostly taking chemistry this year, prepared for the event by attending three afterschool meetings on particle physics, reviewing PowerPoint presentations online, and evaluating online data of collisions in the Large Electron-Positron Collider, predecessor of the Large Hadron Collider (LHC) at CERN.

"They are looking at events, making determinations, doing counting themselves, coming to their own conclusions," Cecire said. "They're all analyzing the same data online, but they're all coming to their independent conclusions."

The data input from the students in South Bend and 20 other locations around the United States, as well as around the globe, help improve statistical confidence about the meaning of events.

In the videoconference, students from each location discussed some events that they found most difficult to identify. They also saw a simulation of how scientists expect the Z-boson particle to appear in CERN's Atlas detector, and images from an event in the CMS in December-among the first events recorded from the LHC.

That prompted a discussion of differences between the proton-proton collisions in the LHC compared to the electron-positron collisions in the LEP.

and the University of Cincinnati, with moderators at Fermilab near Chicago.

"It was really interesting seeing those other particle accelerators," St. Joseph's sophomore Joe Watkins said. "I might look further into it."

Masterclass, started in Europe, is a main educational activity of the European Particle Physics Outreach Group. Notre Dame-based QuarkNet, a federally funded program bringing particle physics and education reform to high school classrooms, manages the project in the United States.

Other sites are the Argonne National Laboratory and the universities of Florida, Maryland, Kansas, Puerto Rico, Minnesota, Mississippi, Buffalo, Houston, Texas-Arlington, California-Riverside, Johns Hopkins, Rice, Purdue, Hampton, Indiana and Florida State.

Chinese house inspires musical, artistic celebration

Exploring the idea of home in music, art

BY JEREMY D. BONFIGLIO, FOR NDWORKS

When Kronos Quartet frontman David Harrington walked into the Peabody Essex Museum in Massachusetts nearly three years ago, he couldn't have anticipated the musical journey he was about to embark on.

Since 1997, the Peabody has housed Yin Yu Tang, an 18th-century Anhui Province structure that has become the inspiration for Harrington's "A Chinese Home," a new 50-minute musical celebration of the cultural history of the Asian country, complete with costume changes, visual projections and props.

"I just couldn't believe the feeling I had in there," Harrington said of Yin Yu Tang. "There was just this sense that these walls had witnessed so much history, so much humanity, and I started thinking about all these amazing sounds, and the music that must have once been here.'

Harrington, along with the quartet's violist Hank Dutt, cellist Jeffrey Zeigler, and fellow violinist John Sherba, as well as frequent collaborator and pipa (Chinese lute) virtuoso Wu Man, will perform "A Chinese Home" at 7:30 p.m. March 27 in the Leighton

SERVICE ANNIVERSARIES

who celebrate significant anniversaries in March:

Edward F. Hums, accountancy

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Concert Hall of DeBartolo Center for the Performing Arts.

The piece, commissioned for the Kronos Quartet and Wu Man by the DeBartolo Center for the Performing Arts, is the centerpiece of a series of campus events that includes an Asian Film Festival (see page 2 for more information), a panel discussion, and the exhibition "Yin Yu Tang: A Chinese Home," which features photographs of the 200-year-old building moved, piece by piece, from the Chinese village of Huang Cun to the Peabody Essex Museum in May 1997 as part of a cultural exchange.

The exhibition, which will be on display through April 25 at the Snite Museum of Art, is being curated by Nancy Berliner, curator of Chinese Art at the Peabody.

"If you go to just one of these events you are really just scratching the surface of the experience," said Anna M. Thompson, director of performing arts and executive director of the DeBartolo. "Going to the exhibit or the panel discussion or the films can only enhance the depth of this piece. I think it deepens the audience's experience of the music but also gives it a real cultural depth. ... Of course I would have loved to have brought in the whole home, but it was a little large."

At 47 feet 6 inches by 52 feet 5-1/2

inches, the house had been home to eight generations of family members-often three generations at a time.

The musical composition "A Chinese Home" explores China's evolving identity during that time frame through works ranging from folk tunes to electronic music, enhanced with theatrical and video elements by acclaimed stage and film director Chen Shi-Zheng. The four-part work features a wide array of Chinese instruments - some that were constructed spe-

cifically for this work by MacArthur fellow Walter Kitundu, including Wu Man's electric pipa. "A Chinese Home" begins with 19th-century mountain dances, advances to 1930s Shanghai, with its jazzy nightclub music that is tempered by a video backdrop featuring images of the Sino-Japanese war.



The group Kronos. Pictured left to right are John Sherba, Hank Dutt, David Harrington and Jeffrey Zeigler.

From there, the piece examines the cheerful songs from Mao Zedong's reign, backdropped with a propaganda movie, and concludes with an examination of China's more contemporary music highlighted by Wu Man's electric pipa.

the idea of what home is," Harrington said. "I wanted the group to expand on what we had done in the past, even learning new instruments we had never played before. My hope is that this piece of music can take listeners through all levels of discovery, and they come away feeling inspired."

"This was an opportunity to explore

PHOTO PROVIDED

"A Chinese Home" will be performed by the Kronos Quartet and Wu Man at 7:30 p.m. March 27 in the Leighton Concert Hall of the DeBartolo Center for the Performing Arts. Tickets are \$36, \$25 for faculty/staff/seniors, and \$15 for all students. Tickets for the Kronos Quartet and Wu Man performance may be purchased by calling the ticket office at 631-2800 or visiting performingarts.nd.edu.

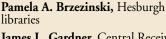
A panel discussion with Nancy Berliner, curator of Chinese Art at the Peabody Essex Museum; David Harrington of the Kronos Quartet; and his musical collaborator, Wu Man, an acclaimed pipa player, will be held at 6:30 p.m. March 25 in the Annenberg Auditorium. The panel will discuss the Yin Yu Tang restoration project and the music it inspired.

"Yin Yu Tang: A Chinese Home" will be on display at the Snite Museum of Art through April 25. This exhibition, curated by Nancy Berliner, is presented in collaboration with the DeBartolo Center for the Performing Arts. It features photographs of the 200-yearold Yin Yu Tang home, which was moved, piece by piece, from the Chinese village of Huang Cun to the Peabody Essex Museum in Massachusetts. Museum information is available at 631-5466 or at the museum's website, nd.edu/~sniteart/.





Hums



James L. Gardner, Central Receiving Gene R. Giles, Office of Facilities Operations

David A. Shidler, food services John A. Wensits, Rolfs Sports Recreation Center



Annual event moves to Notre Rich O'Leary, who spent 38 years of



15 years

35 years

30 years

25 years

20 years

libraries

Debrah J. Gillean, electrical engineering Nancy A. Gillespie, Fischer Faculty Apartments

Lynn M. McCormack, English Glenn J. Rosswurm, development Dennis J. Stachowski, Rockne Memorial Building

Debbie S. Sumption, dean's office Jaroslav Zajicek, chemistry and biochemistry

10 years

Edward W. Atkinson, Morris Inn John C. Buysse, operations and engineering Mary E. Deditch, principal gifts Mark W. DeVore, Office of Research Barbara E. Klowetter, registrar Jordan H. Lee, payroll services An T. Pham, food services Cheryl S. Smith, Hesburgh libraries Michele VanTubbergen, vending



CAROL C. BRADLE

Dame Stadium

BY CAROL C. BRADLEY, NDWORKS

The campus community comes together Friday and Saturday, April 16 and 17, to celebrate cancer survivors, remember those who lost the battle and fight back against cancer with the annual Notre Dame Relay for Life.

The event takes place from 6 p.m. Friday to 9 a.m. Saturday at a new location this year: Notre Dame Stadium. Also new this year, teams that raise \$5,000 will receive a VIP tour of the stadium.

The event begins with opening ceremonies at 6:30 p.m. Friday; at the 9 p.m. luminaria ceremony, participants take a lap in silence to reflect on the people whose names are inscribed on the candle-lit luminaria. Closing ceremonies take place at 8 a.m. Saturday morning, with everyone invited to participate in the final lap.

This year's event is dedicated to

his career in the athletic department, first serving as men's lacrosse coach and later as director of intramurals and club sports in RecSports. In honor of O'Leary's recent passing and courageous fight with cancer, his wife, Linda, is serving as honorary chairperson of the event. Also being honored as a chairwoman is sophomore Kelsey Thrasher, who is battling Hodgkin's lymphoma.

At noon on Wednesday, March 24, the campus Relay for Life video will premiere at the St. Liam Hall third-floor conference center. RSVP to Jeanine Dziak, dziak@nd.edu or 631-9701. A number of fundraisers are planned, including a **used cell phone drive.** Donate used cell phones by placing them in an envelope addressed to the Mail Distribution Center, or placing them in a donation box at the LaFortune information desk in the main lounge, at 317 Main Building, 220 ITC Annex, 204 Mendoza or 636 Grace Hall.



NOTRE DAME STADIUM

Donations of hand-crafted items are welcome for the silent auction held during the event. Other fundraisers include the sale of Elephant Ears and a special edition 2010 Longaberger basket; also on sale are ND Fire Department hats and T-shirts (\$15), sweatshirts (\$25) and knit caps (\$12). It's not too late to get involvedto register a team or for additional

information on events and fundraisers, visit relayforlife.org/ndin.

Upcoming Events

ART

Upcoming exhibitions at the **Snite Museum of Art** include:

2010 BFA/MFA Candidates' Theses Exhibition

O'Shaughnessy Galleries From March 28-May 16, this annual exhibit of culminating works by seniors and third-year graduate students in the Art, Art History and Design Department will demonstrate a broad awareness of the themes and processes of contemporary art. *Reception and Awards: 2-4 p.m. Sunday, March 28.*

MUSIC

Unless otherwise noted, all performances take place in the Marie P. DeBartolo Center for the Performing Arts. For more information or to purchase tickets, visit **performingarts.nd.edu** or call 631-2800. Ticket prices are for faculty and staff, senior citizens and students of all ages.

Penelope Crawford, guest fortepianist

Presented by the Department of Music

7 p.m. Thursday, March 25; Reyes Organ and Choral Hall Internationally acclaimed as one of America's master performers on historical keyboard instruments, Penelope Crawford has appeared as soloist with modern and period instrument orchestras, and as recitalist and chamber musician on major North American concert series.

\$10/\$10/\$5

University of Notre Dame Chorale and Chamber Orchestra Spring Concert 2010 Presented by the Department

of Music *3 p.m. Sunday, March 28; Leighton Concert Hall* The University of Notre Dame Chorale and Chamber Orchestra present "Spring Concert," featuring music from the Renaissance to the 20th century. \$8/\$6/\$3

Academy of Saint Martin

FILM

Unless otherwise noted, films are screened in the Browning Cinema, DeBartolo Center for the Performing Arts. Tickets are \$5 for faculty and staff, \$4 for seniors and \$3 for students.

Monseñor, the Last Journey of Oscar Romero

7 and 9:30 p.m. Thursday, March 25

On Monday, March 24, 1980, Monseñor Oscar Romero, Archbishop of San Salvador, was killed by a professional hit man as he stood at the altar of his chapel celebrating a memorial Mass. His assassination became the catalyst for the Salvadoran Civil War, a conflict which lasted for 12 years and cost 75,000 civilian deaths. This film tells the story of the last three years of Romero's life.

Five Minutes of Heaven (2009)

Contemporary Irish Cinema 6:30 p.m. Friday, March 26 In Northern Ireland, a Catholic man feigns reconciliation on a talk show with an Ulster man who murdered his brother 30 years ago—and plots the man's on-air murder, unbeknownst to the production crew.

A Film With Me In It (2008)

Contemporary Irish Cinema 9:30 p.m. Friday, March 26 A comedy which tells the story of a down-on-his-luck actor who, through no fault of his own, ends up with a dead dog, a dead brother, a dead girlfriend and a dead landlord in his apartment.

Brothers (2009)

Contemporary Irish Cinema 9:30 p.m. Saturday, March 27 When a decorated Marine goes missing overseas, his black-sheep younger brother cares for his wife and children at home—with consequences that will shake the foundation of the entire family.

The Boys of St. Columb's (2009)

Contemporary Irish Cinema 3 p.m. Sunday, March 28 Tom Collins directs this documentary about the famous success stories of St. Columb's school in Derry, Ireland; including Nobel Laureates Seamus Heaney and John Hume to name but two. The film explores how the men's time at the school shaped them and how they went on to shape modern Ireland.

RING THEM BELLS!



The University of Notre Dame Handbell Choir performs at 7:30 p.m. Friday, March 26, in Washington Hall. The concert is free—donations to aid the Holy Cross Missions in Haiti will be collected. The choir of 15 undergraduates performs on four octaves of English-style Schulmerich bandbells.

CAMPUS LECTURES AND EVENTS Weltliteratur: Crossing

Weltliteratur: Crossing Boundaries

9 a.m. to 8 p.m. Friday, March 19, McKenna Hall The Ph.D. in Literature Program sponsors this international, interdisciplinary conference on world literature. Keynote speaker is David Damrosch, chair of literature and comparative literature at Harvard University. The conference is free to faculty and staff. Register at **phdliterature.nd.edu** or call 631-0481.

Lecture: "Promoting Healing After Trauma: The Role of Researchers and Humanitarian Agencies"

4:15-5:45 p.m. Tuesday, March 23; C103 Hesburgh Center for International Studies Featuring Judith Bass, assistant professor in the department of mental health, Johns Hopkins Bloomberg School of Public Health.

Sponsored by the Kroc Institute for International Peace Studies.

Provost's Distinguished Women's Lecture Series: "Ancient Slavery and 19th-Century Abolition" 5 p.m. Thursday, March 25, 136 DeBartolo Hall

5 p.m. Thursday, March 25, 130 DeBartolo Hall Presented by Edith Hall, University of London.

"Reconstructing Michael Jackson's Image: Exploration of Body, Spirit, and Society" Erskine Peters Fellowship Annual Symposium 6-8 p.m. Thursday, March 25; Eck Visitors Center Auditorium This event will feature a panel of Erskine Peters Fellows who will discuss the image of Michael Jackson from a variety of disciplinary perspectives, exploring his ongoing legacy, how that legacy will be shaped by future scholars, and the ways in which his work continues to represent America's diverse culture. Sponsored by the Department of Africana Studies. **Ten Years Hence Speaker Series:** "Conscious Capitalism" 10:40 a.m.-12:10 p.m. Friday, March 26; Mendoza College of Business Jordan Auditorium John Mackey, Chairman and

CEO of Whole Foods Market, will present. Sponsored by the O'Brien-Smith Leadership Program.

Conference: "The Open Light: A Celebration of Notre Dame Poets"

3-9 p.m. Monday, March 29-Wednesday, March 31; 100-104 McKenna Hall Notre Dame hosts its own community of poets. See page 3 for a complete list of events and times. Sponsored by the Creative Writing Program.

Seminar: "American Missionaries and the Imperialism of Human Rights"

4 p.m. Wednesday, April 7; C104 Hesburgh Center for International Studies Professor Andrew Preston, University of Cambridge (United Kingdom), presents.

Public Debate: "Is Religion the Problem?"

7:30 p.m. Wednesday, April 7; Leighton Concert Hall Famed atheist Christopher Hitchens and esteemed Catholic apologetic Dinesh D'Souza will debate. Call 631-2800 for ticket information.

Lecture: "Rethinking Rwanda, 1994"

12:30-1:45 p.m. Thursday, April 8; C103 Hesburgh Center Featuring Christian Davenport, professor of Peace Studies, Political Science and Sociology, Kroc Institute for International Peace Studies.



Call Carol Bradley at 631-0445 or email **bradley.7@nd.edu.**

Precious: Based on the Novel 'Push' by Sapphire (2009)

Worldview Film Series 6:30 and 9:30 p.m. Thursday, April 8-Saturday, April 10 A vibrant, honest and resoundingly hopeful film that tells the story of Precious, an obese, abused and illiterate girl who, with the help of a compassionate teacher, works to make herself a better life.

Seven Samurai (1954) PAC Classic 100

3 p.m. Saturday, April 10 Set in 16th-century Japan and widely regarded as the greatest Japanese film ever made, Akira Kurosawa's epic "Seven Samurai" follows the plight of a defenseless farming village that lives in constant fear of marauding bandits.

THEATER

in the Fields

Visiting Artist Series 7 p.m. Friday, April 9; Leighton Concert Hall The Academy is firmly established as one of the world's leading chamber orchestras with Julian Rachlin, soloist (violin, viola) and leader. \$22/\$22/\$15

Hans Davidsson

Organ Recital Series 2:30 and 5:30 p.m. Sunday, April 11; Reyes Organ and Choral Hall Hans Davidsson, professor of organ at the Bremen Hochschule für Künste, Fachbereich für Musik, and at the Eastman School of Music, Rochester, N.Y., received his Soloist Diploma from the Conservatory of Göteborg, Sweden, in 1985. \$10/\$8/\$5



The Notre Dame Men's Baseball Team plays the South Bend Silver Hawks at 5:30 p.m. Monday, April 5, at Coveleski Stadium for Faculty/Staff Appreciation Night. Bleacher seats are \$4, with a portion of the proceeds benefitting the Ara Parseghian Medical Research Foundation, which fights against Niemann-Pick Type C disease. Visit silverhawks.com for more information or to purchase tickets. Gameo

Shakespeare at Notre Dame 8 p.m. Wednesday and Thursday, March 24-25; Philbin Studio Theatre

Witness Galileo Galilei's pursuit of intellectual integrity and spiritual salvation in this one-man dramatic adaptation of the BBC documentary "Days that Shook the World." \$8/\$8/\$5

Hamlet: Ambroise Thomas

The Metropolitan Opera: Live in HD *1 p.m. Saturday, March 27, and Sunday, April 11; Browning Cinema* Simon Keenlyside and Natalie Dessay bring their extraordinary acting and singing skills to two of the Bard's most unforgettable characters in this new production of Ambroise Thomas' "Hamlet." \$22/\$15



Even Fridays: International Sports Night 5:30 7:30 to m. Eviden

5:30-7:30 p.m. Friday, March 26; Rolfs Sports Recreation Center Learn how to play a variety of international sports with your family. Soccer, rugby, cricket, badminton, and table tennis will all be available. Registration required on RecRegister, **recsports.nd.edu.**

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The Bone Lady



Sue Sheridan, at right, with students (from left) Hiba Ahmed, Kelly Davin, Yessinia Diaz De Leon and Diana Retter, examine osteology specimens in the anthropology department's Reyniers Laboratory.

Forensic anthropology: It's not like what you see on TV

BY CAROL C. BRADLEY, NDWORKS



Examining the skeletal remains of a homicide victim takes an emotional toll. "That's what they don't tell you on TV," says Susan Guise Sheridan, a biological anthropologist and associate professor of anthropology who has sometimes consulted on criminal investigations.

In one case, she was called in to identify skeletal remains of a young girl who'd been missing for two years. "It was the first time I saw how forensic anthropology can bring closure, not just to a family but to a whole community," she says.

People often ask her which TV shows most accurately portray forensic anthropology. The crime drama "Bones," featuring Emily Deschanel as Dr. Temperance "Bones" Brennan, gets the details of the science pretty accurately, Sheridan says. "I've learned a thing or two." But forensic anthropologists going to the scene and collecting data, doing the research and arresting people—that's not how it works. In a real investigation, everyone's job is specialized, she says. "I go to the scene to collect the remains. I take the bones to the lab and do the work on the skeleton. If there are insect remains, I consult a forensic entomologist. The police inter-

rogate people and arrest them. In a trial, I may testify. I've never carried a gun or arrested anybody."

Her own favorite show is "NCIS," she adds, but it's not the science it's Mark Harmon.

More recently, Sheridan has moved away from police work, concentrating her time on two projects: examination of the skeletal remains of monks from the Byzantine monastery of St. Stephen in Jerusalem (today the École Biblique et Archéologique Française and Couvent-Saint Étienne), and remains from Bab edh-Dhra', a site located on the astern shore of the Dead Sea. The remains are housed and studied in the

southeastern shore of the Dead Sea. The remains are housed and studied in the anthropology department's Reyniers Lab on the northwest edge of campus. The bones of Bab edh-Dhra' (nd.edu/~nsfbones/) offer a glimpse of life in the

The bones of Bab edh-Dhra' (nd.edu/~nsfbones/) offer a glimpse of life in the Early Bronze Age. "It's the only large, systematically excavated skeletal collection for the whole Southern Levant—today what we call Israel, Palestine and Jordan."











Heel bones are seriated (sorted into a series by characteristics). In this case the bones are sorted into pairs belonging to an individual—for research purposes, they might also be sorted by size or facet patterns.

The Byzantine St. Stephen's Project (nd.edu/~stephens/) is an interdisciplinary, collaborative study involving theology, art history and other campus departments, reconstructing what life was like in the ancient monastery.

Although the monks were thought to have an ascetic, vegetarian diet, testing conducted by anthropology students at Notre Dame's Center for Environmental Science and Technology—determined that the monks consumed substantial amounts of protein.

Another curious discovery is that of the bones recovered from the monastery's tombs, more than a third are the bones of children. "We didn't expect that," Sheridan says. "What does it mean? We aren't sure. It could a hospital or orphanage, or it may mean that the people of the town buried their children there since the bones of St. Stephen were said to be interred at the site."

The bones show that the monks had terrible pathologies of the knees—likely as the result of hundreds of genuflections a day. "Liturgists and biological anthropologists are not usually conversation partners in research, but it was a helpful combination here," she says.

"When I started looking at the monks, I knew nothing about the Byzantine period in the Middle East," Sheridan adds. "It's like having a very imperfect but revealing time machine, a snapshot of what happened in the past. With the monks, we have a lot of snapshots, and we can put together a relatively full picture of what life was like."



Pictured above: At top, the patella (kneecap) of a Byzantine monk shows osteophytes, or bony extensions into the ligaments. The monk's remains showed serious pathologies of the knees and legs, possibly as a result of hundreds of genuflections a day, says Sheridan.

> Center two photos, vertebrae and mandibles (lower jaw bones) are sorted and numbered.

> > At bottom, bones are sized with calipers.