

Notre Dame a 'Great College to Work For'

University recognized for
6th consecutive year

BY SCOTT PALMER,
HUMAN RESOURCES

For the sixth year in a row, the University has been named to the honor roll of Great Colleges to Work For by the Chronicle of Higher Education.

The Great Colleges program is the premier recognition program in higher education. The results, released Monday, July 21, in The Chronicle's annual report on The Academic Workplace, are based on a survey of more than 43,000 employees at 278 colleges and universities. The primary factor in determining whether an institution received recognition as a Great College to Work for was the employee feedback.

Notre Dame ranked highly in six survey categories:

- **Compensation and benefits:** Pay is fair, and benefits meet the needs of employees.
- **Work/life balance:** Policies give employees the flexibility to manage their personal lives.
- **Job satisfaction and support:** Employees are satisfied with job fit, autonomy and resources.
- **Supervisor or department-chair relationship:** Supervisor makes expectations clear and solicits ideas.
- **Confidence in senior leadership:** Leaders have the knowledge, skills and experience necessary for the success of the institution.
- **Facilities, workspace and security:** Facilities adequately meet needs, the appearance of the campus is pleasing and the institution takes steps to provide a secure environment.

BARBARA JOHNSTON



"We're proud of the tremendous talent we have in our faculty and staff," says vice president of Human Resources **Bob McQuade**. "We know keeping that talent requires more than competitive pay and benefits, it requires an environment of inclusion and empowerment."

McQuade notes that the University has taken many efforts in recent years to build a rewarding workplace, from the construction of an on-campus wellness center to the creation of several programs to improve communication among

managers and employees. "This honor is a fantastic affirmation that those efforts are well received," he adds.

Created in 2008, the Great Colleges program annually recognizes colleges and universities for specific best practices and policies. Of the nearly 100 institutions recognized as Great Colleges to Work For, the honor roll lists the 42 recognized most often in their size categories—institutions which the Chronicle notes are the "best of the best" among the colleges whose employees



participated in the survey.

All accredited U.S. institutions are invited to participate in the survey. Each participating institution submitted to a two-part assessment process: a survey taken by faculty, administrators and support staff, and an institutional audit to capture demographics, policies and practices.

ModernThink LLC, a human resources consulting firm in Wilmington, Delaware, conducted the survey. The questionnaires were administered online in the spring.

Roaring '20s exuberance and Depression-era extravagance

Selections from the Jack B. Smith Jr. Automobile Collection

Four classic automobiles will be on display at the Snite Museum of Art from Sunday, Aug. 17, through Sunday, Nov. 30, in the Meštrovi Studio Gallery.

The autos on exhibit (manufactured in the American Heartland: Detroit, South Bend and Auburn Indiana) include an

PHOTO PROVIDED



1923 Studebaker Big Six Speedster

award-winning 1932 Auburn boattail Speedster—named for the speed records it earned as well as the

"boattail" streaming; the 1932 Packard Light Eight, with a rumble seat and a special compartment for carrying golf clubs; a 1931 Cadillac dual cowl Phaeton—with passenger seating separate from the driver's cockpit; and a

1923 Studebaker Big Six Speedster, Studebaker's flagship model during its nine-year run. The car drew its

name from the 353-cubic-inch inline six-cylinder power plant that produced—in 1923—65 horsepower.

The public is invited to a free exhibition reception scheduled for 2 to 4 p.m., Sunday, Sept. 14. Eric and Vivian LaVine, co-owners of LaVine Restorations, will speak at the reception about classic car restoration. Watch the Snite Museum of Art website

(sniteartmuseum.nd.edu) for information about related events, including a jazz concert and a silent film.

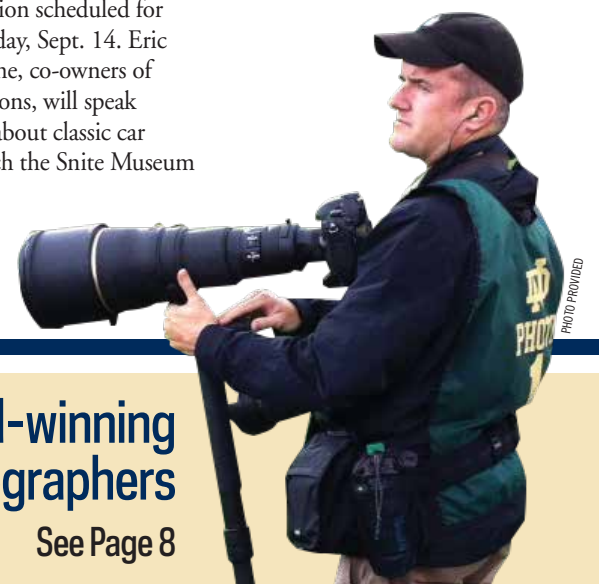


PHOTO PROVIDED

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returns
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photographers**
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NEWS BRIEFS

WHAT'S GOING ON

SAVE THE DATE

The annual **Opening Mass and Picnic**, marking the official opening of the academic year, takes place Tuesday, Aug. 26, in the Joyce Center. Mass begins at 5:30 p.m. in the Purcell Pavilion, with a procession of faculty and student leaders beginning from the North Dome at 5:20 p.m. Following



Opening Mass

Mass, all faculty, staff and students are encouraged to attend a picnic buffet at a campus location to be announced. Both dining halls will be closed for dinner so all can enjoy the outdoor picnic.

The annual fall **Town Hall Meetings** will take place Monday and Tuesday, Oct. 6 and 7. Locations, times and topics will be announced later.

CONSTRUCTION UPDATES

The **Facilities Design & Operations Office** has announced that contractors working on the campus utility project have closed the intersection of Joyce Drive and Old Edison Road, just northwest of Compton Family Ice Arena. Joyce Drive will remain closed through



Utility tunnel construction

approximately Wednesday, July 30.

Access to parking lots south of the Joyce Center is available from Leahy Drive off Angela Boulevard. Please allow additional travel time when arriving to campus during this construction project.

For questions about campus construction, please contact Facilities Design and Operations at 631-4200. For information about parking, please contact the Parking Office at 631-5053.

PEOPLE

TWO ARTS AND LETTERS PROFESSORS AWARDED NEH FELLOWSHIPS

Two faculty members from the College of Arts and Letters—**Tobias Boes** and **Eugene Ulrich**—have been awarded fellowships from the National Endowment for the Humanities (NEH) for the 2014-15 academic year.

Ulrich, Rev. John A. O'Brien Professor of Theology Emeritus, is one of the world's leading scholars of the Dead Sea Scrolls, a collection of ancient texts discovered after World War II in caves along the shore of the Dead Sea near Jerusalem. He also specializes in areas of the Hebrew Scriptures and the Septuagint.

Boes, an associate professor in the Department of German and Russian Languages and Literatures, focuses on the modernist period, the theory and history of the novel, and cultural interactions between Germany and the world at large.

BIOLOGIST DAVID LODGE NAMED JEFFERSON SCIENCE FELLOW

David Lodge, Ludmilla F. and Stephen J. Galla Professor of Biological Sciences and a



Lodge

world-renowned expert on invasive species, has been named a 2014-15 Jefferson Science Fellow.

The Jefferson Science Fellowship Program is designed to further build capacity for science, technology and engineering expertise with the U.S. Department of State and the U.S. Agency for International Development (USAID).

Jefferson Science Fellows spend one year at the State Department or USAID for an on-site assignment in Washington, D.C., that may involve extended stays at U.S. foreign embassies and missions.

Lodge is the founder and director of Notre Dame's Environmental Change Initiative (ND-ECI), which focuses on the interrelated problems of invasive species, land use and climate change, and their synergistic impacts on water resources. He is one of the world's leading

experts on aquatic invasive species, and has extensive research experience in ecological forecasting and risk assessment, publishing more than 180 scientific papers.

CAMPUS NEWS

NOTRE DAME RANKS 25TH IN SURVEY OF BEST PLACES TO WORK IN IT

Notre Dame ranks No. 25 among large organizations in Computerworld Best Places to Work in IT, an annual ranking of the top 100 organizations that challenge their information technology staffs while providing great benefits and compensation.

NDIGD AND ND-GAIN AWARDED PROJECT FROM 3IE TO DESIGN IMPACT EVALUATION IN MOZAMBIQUE

The Notre Dame Initiative for Global Development (NDIGD) and the Notre Dame Global Adaptation Index (ND-GAIN) will work with faculty and staff

from the Universidade Católica de Moçambique to assess the impacts of early-warning systems for climate-related disasters in Mozambique.

A densely populated country located in low-lying coastal and river zones, Mozambique is extremely susceptible to natural disasters and climate change including cyclones, storms and floods. Community-based disaster management committees and decentralized early-warning systems are being created to cope with

Chen, research fellow from ND-GAIN.

AFRICAN LEADERS LEARN BUSINESS, ENTREPRENEURSHIP

Twenty-five young African leaders from 17 countries arrived on campus in June to receive six weeks of training in business and entrepreneurship as part of the Obama administration's Young African Leaders Initiative (YALI).

The program was launched in 2010 to support young African leaders as they spur growth and prosperity, strengthen democratic governance and enhance peace and security across Africa.

Notre Dame is among an elite group of colleges and universities

chosen by the U.S. Department of State as a host institution for the Washington Fellowship for Young African Leaders program. The program will bring 500 students to the United States each year for leadership training, academic coursework and mentoring, and create unique opportunities in Africa to put those new skills to practical use.



Young African Leaders Initiative

climate risks. Notre Dame will help to evaluate the success of programs established by aid from the German government.

Leading the research team from Notre Dame is Jessica Hellmann, research director of ND-GAIN and associate professor in the department of biological sciences. NDIGD and ND-GAIN researchers collaborating on the project include Juan Carlos Guzman and Lila Khatiwada, monitoring and evaluation specialists with NDIGD, and Chen

HOLY CROSS JUBILARIANS HONORED

The Congregation of Holy Cross, U.S. Province of Priests and Brothers, celebrated the lives and ministries of 18 Holy Cross priests reaching milestone anniversaries of their ordination earlier this spring with a Mass of Thanksgiving in the Basilica of Sacred Heart. Of the priests being honored this year, 17 are from the U.S. Province and one is from the Holy Cross' Sacred Heart of Jesus Province in Bangladesh.

Row 1 (from left): Rev. George C. Bernard, C.S.C. (65); Rev. Patrick H. Maloney, C.S.C. (60); Rev. Edwin J. Kadzielawski, C.S.C. (65); Rev. Robert Pelton, C.S.C. (65); Rev. Richard A. Laurick, C.S.C. (60); Rev. R.W. Timm, C.S.C. (Sacred Heart of Jesus Province, Bangladesh, 65)

Row 2 (from left): Rev. Rómulo E. Vera Muñoz, C.S.C. (25); Rev. Martin L. Nguyen, C.S.C. (25); Rev. James W. Thornton, C.S.C. (50); Rev. Michael T. Belinsky, C.S.C. (25); Rev. Robert J. Loughery, C.S.C. (25); Rev. W. Patrick Hannon, C.S.C. (25); Rev. Peter J. Walsh, C.S.C. (25); Rev. Richard E. Gribble, C.S.C. (25)

Not present: Rev. David J. Arthur, C.S.C. (60); Rev. Charles Wallen, C.S.C. (60); Rev. William J. Crumley, C.S.C. (50); Rev. Stephen P. Newton, C.S.C. (25)



NDWorks



Publication Dates

June 26
July 24
Aug. 21
Sept. 25
Oct. 23
Nov. 20
Jan. 8
Jan 29
Feb. 26
March 26
April 23
May 21

Copy deadline is 10 business days prior to the above 2014-2015 publication dates.

CONTACT US @

Have a comment, question or story idea? Contact NDWorks Managing Editor **Carol C. Bradley**, 631-0445 or bradley.7@nd.edu. For questions regarding The Week @ ND or the University calendar, contact Electronic Media Coordinator **Jennifer Laiber**, 631-4753 or laiber.1@nd.edu.



Under Armour makes memorable campus debut



SARAH MEAD

Shoppers waited in line at midnight for the sale to begin.

Midnight event coincides with tornadoes

BY COLLEEN O'CONNOR, FOR NDWORKS

Neither the midnight hour nor local tornadoes stopped Notre Dame fans from storming the Leep Varsity Shop at Purcell Pavilion in the early morning hours of Tuesday, July 1, to get a sneak peek at the long-anticipated Under Armour sideline gear.

The event went on, with tables moving inside the Joyce Center, as tornado sirens sounded and severe thunderstorms swept through the area.

More than 350 fans, many waiting 90 minutes or more, enjoyed snacks provided by Centerplate, manager of Notre Dame Concessions, and the music of a DJ as well as raffles and give-aways when the doors opened to a completely restocked and redesigned store.

The Leep Varsity Shop and the Dellece Hockey Shop at Compton Family Ice Arena are now selling

Under Armour exclusively. The Hammes Notre Dame Bookstore (campus), the Hammes Bookstore at Eddy Street, the Notre Dame Chicago Bookstore and other retail operations managed by Follett Higher Education Group still offer a full assortment of licensed Notre Dame apparel in addition to Under Armour, including Champion and JanSport.

The last of the adidas inventory is available at reduced prices at the Notre Dame Clearance Center at 1610 N. Ironwood Drive. Hours are 10 a.m. to 5 p.m. Monday through Friday and 10 a.m. to 4 p.m. on Saturday.

Effective July 1, Baltimore-based Under Armour replaced adidas as the official provider for Notre Dame Athletics, designing apparel and footwear for all men's and women's varsity teams, coaches and fans.

"We are looking forward to the new partnership with this exciting brand," said **David Werda**, director of retail operations. "Come check out our stores with a new look, new feel and new products."

Sensing Our World teaches students about energy conservation and transformation

BY JAYME RUSSELL, COLLEGE OF SCIENCE

Sensing Our World, a summer program for middle school students led by **Gordon Berry**, emeritus professor of physics, was held in the Jordan Hall of Science in early July.

The program encourages experimentation in science, mathematics and technology through hands-on activities. This year the program focused on the conservation and transformation of energy. Throughout the week, the students visited the Notre Dame's power station, the wind turbines,

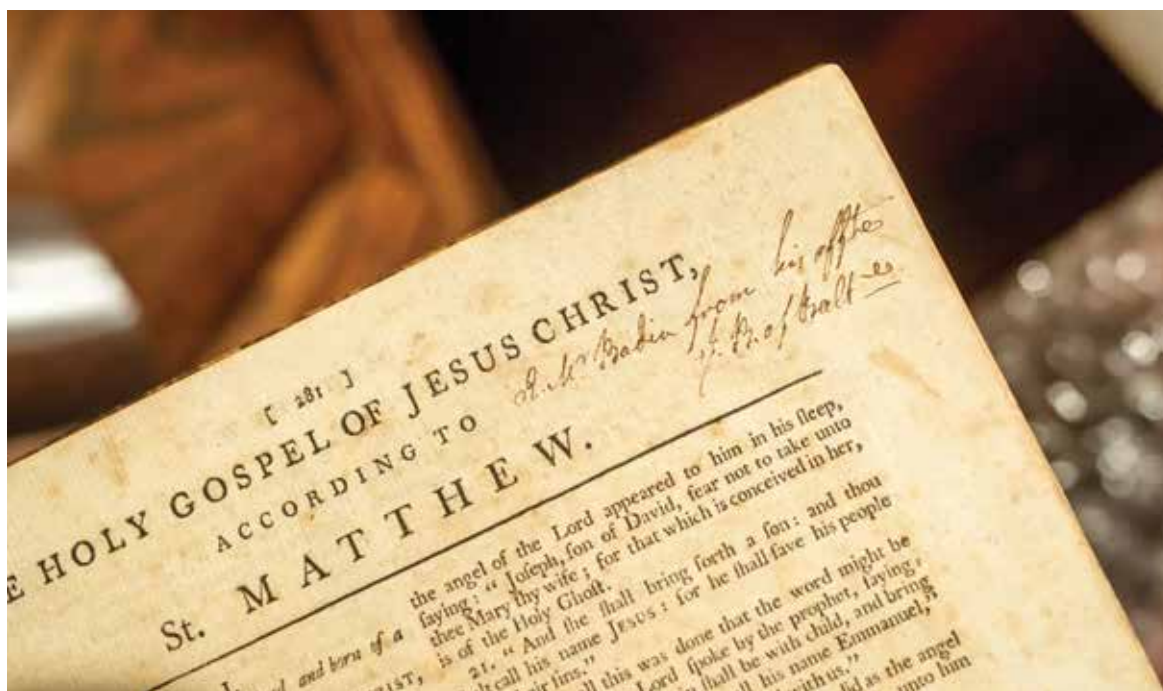
the Museum of Biodiversity, the Snite Museum of Art and the Digital Visualization Theater.

Students learned about a variety of energy subjects, including temperature, climate and extinction. By the sundial outside the entrance to Jordan Hall, the students set up their own sundials using paper and pencils. Each hour, the students observed where the sun fell on the pencils and cast a shadow and marked the shadow as it moved across the paper. At the Snite, students observed how gravity and wind moved and changed George Rickey's sculptures, and then they made their own mobiles.



MATT CASHORE

Notre Dame receives Father Badin's Bible



The Bible, inscribed to Father Badin by Bishop John Carroll, the first Catholic bishop in the United States, was presented to Father Badin at his ordination in 1793.

Rare volumes published in 1790

BY MICHAEL O. GARVEY, PUBLIC RELATIONS

The University has acquired a Bible once owned by Rev. Stephen Badin, the pioneer priest on whose mission grounds Notre Dame's founder, Rev. Edward Sorin, C.S.C., began to build the University 172 years ago.

Father Badin's Bible was purchased from the Sisters of Loretto of Nerinx, Kentucky, and a delegation of sisters traveled to deliver it by hand during a Mass celebrated in the Log Chapel where Father Badin is buried.

The first Catholic priest ordained in the United States, Father Badin served as a missionary on the Kentucky, Indiana and Illinois

frontiers. In 1831, he built the Log Chapel for his mission headquarters on the site where its replica stands today, the original having burned down in 1858. The 542 acres around that site, of which much of the campus (including a student residence hall named after him) is now comprised, Father Badin donated to Bishop Celestine de la Hailandiere of Vincennes, Indiana, who subsequently gave the land to Father Sorin.

The Badin Bible is a rare book. A three-volume edition of the Douay-Rheims version published by Mathew Carey in 1790, it was the first "Catholic" Bible for sale in the United States. Carey, an expatriate Irish journalist, printer and publisher in Philadelphia, issued and sold fewer than 500 copies at a time when Catholics were an extremely small minority (some 35,000 of 4 million,

or roughly 1 percent) of the nation's population.

Adding to this book's distinction and historical significance is that it was given to Father Badin at his ordination in 1793, the gift of Bishop John Carroll of Baltimore, himself the first Catholic bishop of the United States. The Bible is inscribed to Father Badin by Bishop Carroll, who ordained him.

"Notre Dame's acquisition of the Badin Bible will link Father Badin's Kentucky home with his Indiana one, and his early ministry as a priest with his final resting place," says **Kathleen Sprows Cummings**, director of the Cushwa Center for the Study of American Catholicism. "Far beyond the campus connection, however, Badin's Bible represents a number of historic firsts in American Catholicism. This is a real treasure that will benefit the teaching and research of historians and Bible scholars at Notre Dame and beyond."

The Bible will be on display in the Rare Books and Special Collections Room on the main floor of the Hesburgh Library during the fall semester. "The Badin Bible will be one of the most significant additions to the collection of Catholic Americana held in the Rare Books and Special Collections department of the Hesburgh Libraries," says Catholic Studies librarian **Jean McManus**. "The later work of Stephen Badin, as a missionary to the Middle West, connects this Bible to the University of Notre Dame."

Below, the three-volume Bible once owned by Rev. Stephen Badin. At bottom, members of the Sisters of Loretto of Nerinx, Kentucky, carry the Bible at the beginning of Mass at the Log Chapel, where Father Badin is buried.



PHOTOS: MATT CASHORE



Research at transonic speeds

Falcon 10 aircraft donation will enable complex experiments

BY MANDY KINNUCAN,
INTERNAL COMMUNICATIONS

A recent donation to the University of Notre Dame's Airborne Aero-Optics Laboratory (AAOL) is about to give laser-directed energy and free-space communication a transonic boost: researching at the speed of sound.

A Falcon 10 aircraft, donated by Philadelphia-area businessman Matthew McDevitt, will enable the University to continue its groundbreaking aerospace research and development that will advance technology for weapons systems and communications.

The results could pave the way to high-field-of-regard, point-to-point airborne laser propagation for directed energy and communications as fast and robust as fiber-optic Internet connectivity. In other words, high-flying research at Notre Dame is not only helping to refine the U.S.'s weapons systems, but it could lead to a television show streaming just as fast on a commercial flight as it does in a living room.

Since the mid-1990s, aerospace engineering research has found its home at Notre Dame through the Institute for Flow Physics and Control's Aero-Optics Group, directed by **Eric Jumper**, professor of aerospace and mechanical engineering. With support from the High Energy Laser-Joint Technology Office (HEL-JTO), Notre Dame faculty and researchers have been working with the Air Force Institute of Technology's Center for Directed Energy (CDE) and MZA Associates Corp. to conduct studies focused on directed energy, specifically laser interactions with turbulence, or aero-optics.

The AAOL—one of the research programs within the Aero-Optics Group—has taken the lasers to the skies, studying the effects of turbulence on a laser directed from one aircraft to a turret installed on a tandem-flying aircraft about 50 meters away flying at transonic speeds.

PHOTOS: MATT CASHORE



The interior of the Falcon 10

"Planes have difficulty using lasers because even a tiny amount of turbulence can effectively turn a laser into a really expensive flashlight," says Jumper. "Supported by funding from the HEL-JTO, we have developed aero-optic wave front beam-control architectures that overcome aircraft vibration and mitigate the effects of turbulence, which could enable such technologies as free-space communication."

Beyond the obvious improvements to directed energy applications, the research will also lead to more than just in-flight streaming entertainment for bored airplane passengers. If

brought to market, point-to-point airborne laser communications could improve transmissions between aircraft systems and other aircraft, satellites or ground stations and create a foundation for video feeds from unmanned flights over battlefields or disaster areas.

AAOL's research has been conducted in wind tunnel labs on Notre Dame's campus to simulate flight conditions, and in 2010 the team successfully completed laser-based testing in-flight on two leased Cessna Citations outfitted as sophisticated airborne aero-optics laboratories. The following series

Eric Jumper, professor of aerospace and mechanical engineering, thanks Matthew McDevitt for the donation of a Falcon 10 jet during a news event at the South Bend Regional Airport. The jet is to be used as an airborne optics research platform.

of in-flight tests helped ensure the performance of the aero-optic system developed at the University, but testing was required at higher Mach speeds—and the need for a Falcon 10 arose.

"To really continue our research, we needed to realize higher levels than we could achieve in wind tunnel studies and with previous aircraft," says Jumper. "With a Falcon 10, we can conduct research at Mach numbers above Mach 0.8, providing an authentic environment that produces more accurate results than a simulated set-up."

Growing up in a Catholic family and attending 12 years of Catholic school, McDevitt, who previously owned the aircraft for private use with his family, learned about the University's need for a fast-flying jet and generously donated the aircraft.

Since the donation, the Falcon 10 has been transformed into a high-speed, high-altitude flying lab, outfitted with the laser-tracking turret and additional aero-optic technology. And, with an engine protection program donated from longtime Notre Dame research partner and South Bend neighbor Honeywell Aerospace, the Falcon 10's engines will be maintained at no cost to the University for six years.

"This dedicated plane allows the AAOL team to set up, troubleshoot and conduct complex experiments, which was not available when we leased aircraft one week at a time," says Jumper. "This is about a \$1.25 million gift, and without it we would certainly have a less robust program."

Google Update

BY LENETTE VOTAVA, OIT

Faculty and staff are finding that Google offers many great features, but you can also find a variety of Google extensions to install on your Chrome browser for added functionality and convenience. Additional information is available at sites.google.com/a/nd.edu/going-google/extensions.

As you discover additional Google features, you may have some questions. Don't forget the Office of Information Technologies has set up a variety of resources to meet your specific needs:

- A built-in help system called Synergyse will walk you through how to use Google right in your Web browser
- Videos and help articles located at oit.nd.edu/going-google
- In-depth, hands-on training sessions are available throughout the summer. Sessions focused exclusively on either Gmail or on Google Calendar are available now. You can see the updated schedule for hands-on training at oit.nd.edu/going-google
- Ask your departmental IT support team

You can watch for new Google information and tips by following the OIT:

 @oithelpdesk

 facebook.com/oithelpdesk

 oit.nd.edu/gplus

If you have any questions, please contact your departmental IT support staff or call the OIT Help Desk at 631-8111, email oithelp@nd.edu, or chat at help.nd.edu.

STEVE DUEPP



JINA Art to Science camp

During the JINA Art to Science camp July 14-18 in the Jordan Hall of Science, more than 150 children learned about the wonders of the physical universe and used their creativity to express their new knowledge by creating art and hands-on experiments. The camp was organized by the Joint Institute for Nuclear Astrophysics (JINA).

Chikungunya virus tracked in U.S.

Newly identified virus is one of many transmitted by mosquitoes

BY CAROL C. BRADLEY, NDWORKS

On Thursday, July 17, the Centers for Disease Control and Prevention (CDC) in Atlanta announced that—seven months after the mosquito-borne virus chikungunya (chik-un-GUHN-ya) was recognized in the Western Hemisphere—the first locally acquired (endemic) case of the disease in the continental United States has been reported.

Since 2006, the U.S. has had 243 cases of the disease—all associated with travel—including six in Indiana. The Florida case, diagnosed in a man who had not recently traveled outside the U.S., represents the first time mosquitoes are thought to have spread the virus locally to a non-traveler.

It's a development that doesn't surprise **David Severson**, professor of biology and director of the Eck Institute for Global Health.

"Chikungunya is currently epidemic in the Caribbean, and recent outbreaks have occurred in southern Europe. It's virtually guaranteed that endemic transmission will happen. And it's going to be a problem—there are no drugs, and no vaccines for the disease," he says.

The Chikungunya virus is transmitted to people by two species of mosquitoes, *Aedes aegypti* and *Aedes albopictus*.

Aedes aegypti is the major vector in the tropics, but *Aedes albopictus*, introduced into the U.S. in the late 1980s in used tire shipments, is more adapted to our temperate climate and is established throughout the southeastern U.S., with populations as far north as Indianapolis. Severson says, "The virus will be here before you know it."

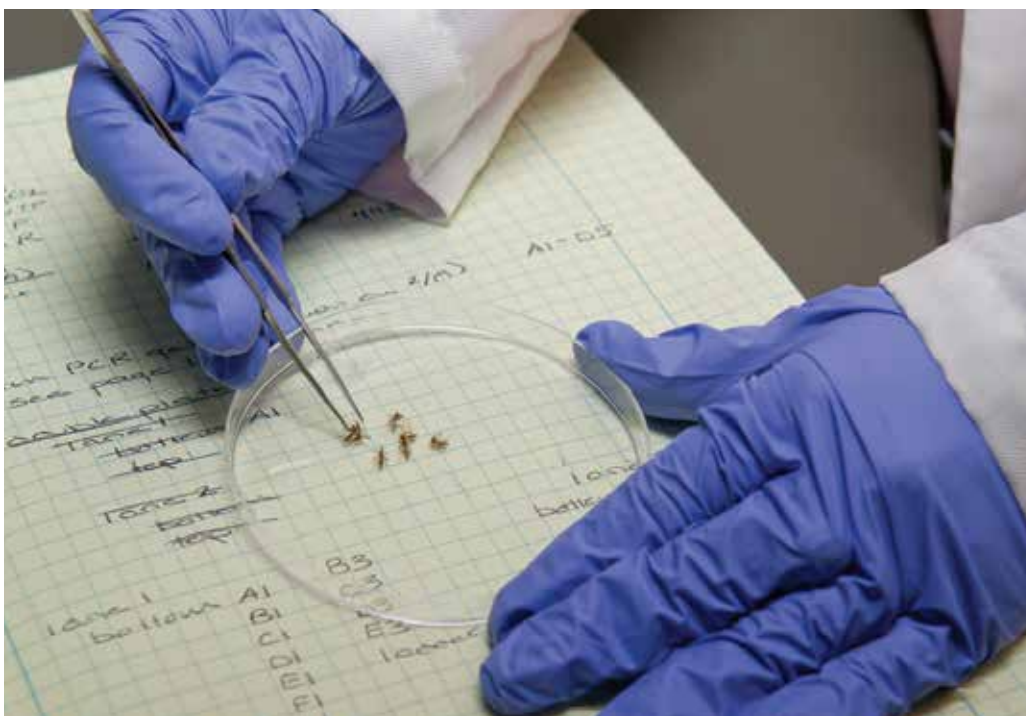
Although rarely fatal, chikungunya causes fever and joint pain, and symptoms may include muscle aches, headaches, joint swelling or rash. Travelers should seek medical care if they have symptoms after returning from areas where the virus has been reported. Those infected with the disease should protect themselves and others from mosquito bites during the first few days of the illness, to prevent other mosquitoes from becoming infected and spreading the disease.

Although the public has become aware of the chikungunya virus only recently, the virus is one of a number of diseases spread by mosquitoes, including dengue (DEN-gee)—colloquially known as "bone-break fever."

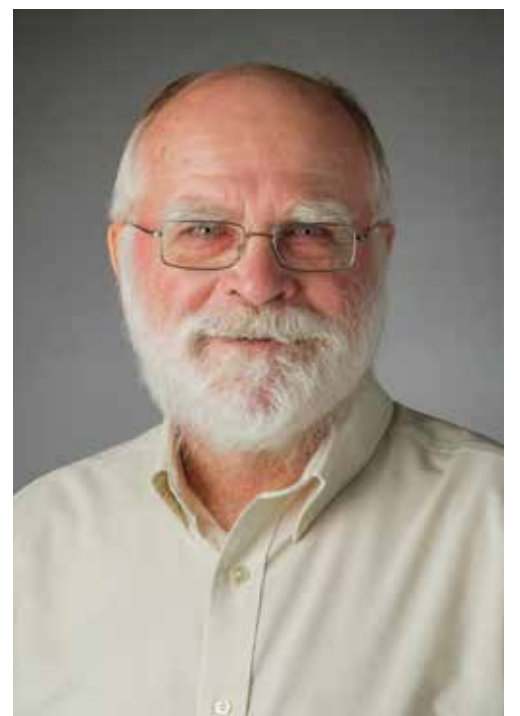
Dengue, "one of the most prevalent arthropod-borne viral diseases on the planet," is a focus of Severson's research. Mosquitoes also transmit malaria, yellow fever, St. Louis encephalitis and other viral diseases. In early July, mosquitoes in Marshall County tested positive for West Nile virus.

"There has been endemic transmission of dengue in Florida for many years," he says. "In the semi-tropics, it's everywhere." And bed nets (helpful for avoiding night-biting *Anopheles* mosquito species that spread malaria) are of no use against the day-biting *Aedes* species.

CENTER FOR DISEASE CONTROL



PHOTOS: BARBARA JOHNSTON



Top photo, *Aedes aegypti*—one of a number of species of mosquitoes that transmit disease to humans. Above left, mosquito research in the lab. Right photo, Severson.

People have a short memory, Severson notes. Malaria was endemic in many parts of the U.S. in the 19th century. During the Civil War, he says, "the Northern armies' southern campaigns were built around the mosquito season." Confederate general John Bell Hood survived the war, retired to New Orleans, and died of yellow fever in 1879.

"Within the last 100 years we pushed those diseases back. Yellow fever still has a fairly high number of fatalities globally, but there's a good vaccine. In developing regions, though, there are problems with delivery of vaccines—they need to be refrigerated."

Severson's research focuses on understanding the genetics and genomics of mosquitoes, particularly

Aedes aegypti and *Aedes albopictus*—both primary vectors for the chikungunya virus. "What happens when we infect a mosquito with dengue? Which genes are turned on or turned off as the virus develops? The innate immune response of the mosquito is similar to humans. What part of the innate immune systems is turned on?"

Severson's career in mosquito biology is a result of serendipity. He trained as an entomologist at the University of Wisconsin at Madison, researching honeybees. "There was a federal honeybee research lab there. Then the government closed the lab. I preferred to stay in Madison, and started working with a professor across the hall who was working with mosquitoes. It launched my

career in mosquito biology. I was there in the early days of molecular genetics, getting DNA out of a single mosquito."

With climate change leading to warmer temperatures, mosquito-borne diseases are likely to become wider-spread public health risks as mosquitoes' range shift north.

Mosquitoes can breed and grow in small amounts of water—and some are so successful because their eggs are resistant to desiccation, Severson says. "If the water dries up, they'll just sit there for a year, and when it rains again—instant mosquitoes."

In Indiana as elsewhere, mosquito prevention is important. "I collect rainwater on my deck to water plants—if you see wiggly things in standing water, you need to do

something. Mosquitoes can breed in any standing water, any kind of little pond or in old tires." He recalls, during a trip to Trinidad, discovering mosquito larvae in the small amount of water in the track of the shower door in his room.

Current research in the field is looking at a number of different ways to address mosquito-borne disease—drug therapy to prevent mosquitoes from transmitting the virus; new insecticides that would affect only the mosquito; and vaccines to prevent the virus from developing in the mosquito.

"Controlling the mosquito is presently the only way to control the disease," Severson says.

SERVICE ANNIVERSARIES

The University congratulates those employees celebrating significant service anniversaries in **August**:

40 Years

Julie A. Buck, Food Services, South Dining Hall
William S. Hedl, Security
Carmela R. Kinslow, Law Library
Pamela J. Nicholas, Hesburgh Libraries
James H. Seckinger, Law School

35 Years

Alfred J. Freddoso, Philosophy
William F. Meyer, Sports Medicine

30 Years

David P. Chodzinski, Utilities—Operations
George L. Frison, Food Services, South Dining Hall
Jeanne G. Hendricks, Development—Donor Services
Mark J. McCready, Chemical and Biomolecular Engineering
Kevin M. Rooney, First Year of Studies

25 Years

Ani Aprahamian, Physics
D'Arcy J. Boulton, Medieval Institute
Joan F. Brennecke, Chemical and Biomolecular Engineering
Jean A. Dibble, Art, Art History, and Design
Kevin C. Dreyer, Film, Television, and Theatre
Karmen M. Duke, English
Matthew J. Dyer and **Alex A. Himonas**, Mathematics
Miguel A. Franco and **Leonard A. Hickman**, University Counseling Center
David W. Gasperetti, German and Russian Languages and Literatures
Jimmy Gurulé and **Jay H. Tidmarsh**, Law School
Eric J. Jumper, **Samuel Paolucci** and **Joseph M. Powers**, Aerospace and Mechanical Engineering
Reginald R. Kalili, Food Services, North Dining Hall
Gary A. Lamberti, Biological Sciences
Daniel P. Manier, Law School
Shannen M. McKaskle, Morris Inn
Juan C. Migliore, Mathematics
Emma T. Owens and **John L. Pierson**, Custodial Services
Susan M. Penrod, First Year of Studies
Linda K. Rule and **Alain P. Toumayan**, Romance Languages and Literatures
Ken D. Sauer, Electrical Engineering
Rev. Timothy R. Scully, C.S.C., Institute for Educational Initiatives
Wendy H. Settle, University Counseling Center
Thomas G. Smith, School of Architecture
Martin H. Wolfson, College of Arts and Letters

20 Years

Kevin P. Cannon, Development—Advancement Services and Finance
Laura A. Carlson, **Bradley S. Gibson**, **Dawn M. Gondoli** and **Anita E. Kelly**, Psychology
Peter A. Cholak and **Qing Han**, Mathematics
Sandra D. Collins and **Robert F. Easley**, Management
Deborah J. Dobecki, Reckers
James L. Duncan, Vending
Mark L. Gunty, Office of Strategic Planning
Noriko Hanabusa, East Asian Languages and Cultures
Thomas A. Hanstra, Hesburgh Libraries
Gregory V. Hartland, Chemistry and Biochemistry
Peter M. Kogge, Computer Science and Engineering
Peter T. McQuillan, Irish Language and Literature
Darlene A. Mikulak, Academic and Administrative Services
Christian R. Moevs, Romance Languages and Literatures
Wendy M. Mott and **John A. Sejdinaj**, Office of VP—Finance
Paula S. Muhlherr, Center for Social Concerns
Darnell Murray, Food Services, South Dining Hall
Jennifer D. Phillips, Recreational Sports
Gretchen Reydams-Schils, Program of Liberal Studies
Steve E. Roberts, Rockne Memorial Building
Gregory L. Snider, Electrical Engineering
Maria C. Tomasula, Art, Art History, and Design
Matthew R. Uebelher, Morris Inn
Ted A. Warfield, Philosophy
Sandra A. Young, Athletic Business Office

15 Years

Carol J. Blackford, IT Administrative Services
Kevin D. Bradford and **Elizabeth S. Moore**, Marketing
Patrick L. Brennan, Gift Planning Administration
Anne M. Cahill Kelly, Community Based Partnerships
Sandra J. Collins, **Anastasia Guimaraes**, **Susanna King** and **Belinda M. Obren**, Hesburgh Libraries
Thomas C. Corke, Aerospace and Mechanical Engineering
Edward A. Cottrell, Utilities—Operations
Samuel R. Evens, **Brian C. Hall**, **Xiaobo Liu** and **Anne B. Pilkington**, Mathematics
Nicole S. Garnett and **Richard Garnett**, Law School
J. Daniel Gezelter, Chemistry and Biochemistry
Alyssa W. Gillespie, German and Russian Languages and Literatures
Li Guo, Classics
Maureen R. Hogue, Enterprise Support Services
Jesus A. Izaguirre, Computer Science and Engineering
Julia D. Kennedy, Joyce Center Housekeeping
William A. Krusniak, **Pamela K. Lolmaugh**, **La Kisha N. Rodgers** and **Lisa M. Touhey**, Food Services, South Dining Hall
Jesse M. Lander, English

Jerry G. Langley, Finance
Daniel A. Lindley, Political Science
Gregory N. Luttrell and **Cortney Swift**, Office of Research
Maureen Marnocha, College of Arts and Letters
Joy E. McCausland, Football
Holly A. Mwachande, Café Commons (Common Stock)
Jennifer E. Nemecek, Admissions
AnnMarie R. Power and **David H. Sikkink**, Sociology
James K. Reabe, Planning, Design, and Construction
Anita M. Rees, Career Center
Mayra Sandoval-Cooper, Center for Transgene Research
Adam M. Sargent, Academic Services for Student-Athletes
Marisha D. Schmidt, Physical Education
Siiri S. Scott, Film, Television, and Theatre
Alan C. Seabaugh, Electrical Engineering
Michelle L. Smith and **Brian E. Zbrzezny**, Catering By Design
Cortney Swift, Office of Research
Greg D. Weaver, Athletics Media Relations

10 Years

Joseph J. Annoye and **Julie M. Annoye**, Land O'Lakes
Viva O. Bartkus and **Daewon Sun**, Management
Sean Carroll, Athletics
Media Relations
Nitesh V. Chawla and **Christian Poellabauer**, Computer Science and Engineering
Jon T. Coleman, History
Christopher A. Corrente, Academic and Administrative Services
Debra M. de St. Jean, Student Organizations
Timothy J. Gilbride, Marketing
Alexandra Guisinger, **Victoria T. Hui** and **Debra Javeline**, Political Science
Scott A. Jessup, Development, Inst. and Individual Giving
Roberta A. Jordan, Hesburgh-Yusko Scholars Program
Keli R. Kalisik, Financial Aid
Kathryn E. Kerby-Fulton, English
Oleg V. Kim, Applied Computational Mathematics and Statistics
Martin L. Klubeck, Information Security
Brenda Low, Legends
Idalia R. Maldonado, Institute for Latino Studies
Glenn F. Martin, Security
Christine M. Maziar, Provost Office
Valerie G. McCance, Institute for Church Life
Leslie M. Niedbalski, Security
Danilo S. Obispo, Custodial Services
Jennifer L. Parks, Food Services, North Dining Hall
Brett J. Perkins, Campus Ministry
Gerard F. Powers, Kroc Institute
Karen J. Rife, Food Services, South Dining Hall
John Stiver, Finance
Douglas L. Thain, Computer Science and Engineering
Debra A. Winnicki, Catering...By Design
Huili Xing, Electrical Engineering

NEW EMPLOYEES

The University welcomes the following employees who began work in **June**:

David E. Adams, Landscape Services
Andrew Allen, Aviation Department
Kyle Bowen, Recreational Sports
Theresa Brown, Security
Joanne D. Fahey, Office of VP—Research
Robert P. Gavagan, Athletics Marketing
Brandon W. Gearhart, Office of General Counsel
Madeline R. Gillen, History
Anni Jiang, Office of Budget and Planning
Jason D. Koncsol, **David J. Murphy** and **Christopher T. Patterson**, Navy ROTC
Ronald P. Linczer, Development—Eastern Region
John H. Lloyd, Corporate Relations
Maria L. Lynch and **Erica A. Vesnaver**, Alliance for Catholic Education
Sean M. MacCready, Development—Midwest Region
Katelynn McBride, Law School
Holly Milliken, Freimann Animal Care Facility

Kara Paterson, Political Science
Nicolas Reed and **Matthew VanderWerf**, Center for Research Computing
Jason A. Resko, Utilities—Operations
Ediberto Rivera, Building Services
Sarah C. Rompola, Pre-College Programs
Daniel Ruggiero, Physics
Kaitlyn M. Sforzo, Athletics Ticketing
Shaylyn B. Sikorski, Chemical and Biomolecular Engineering
Amanda J. Skofstad, VP—Associate Provost for Internationalization
Amy Stark, Biological Sciences
Nathaniel T. Steele, Athletics Digital Media
Julia J. Steines-Berkemeier, Army ROTC
Christopher Swenson, Men's Swimming
Daniel Wolfe, Hesburgh Libraries
Yue Yuan, Center for Transgene Research

Be Well series

August

12:15 - 12:45 p.m.
 Wednesdays
 RecSports Meeting Room
 RSVP to askHR 631-5900

Health and Wellness

Aug. 7 Immunizations for Children, Adults and Travel
 Aug. 14 Walk Strong (The Chapels of Notre Dame)
 Aug. 21 When to Call the Doctor



NDSP is available 24/7 to register your bike. Bring your bike to Hammes-Mowbray Hall, or call 631-5555 and an officer will meet you on campus.

Bicycles are frequently targeted by thieves. Help prevent theft by properly locking your bike, and be sure to report suspicious activity immediately! U-Locks, which resist hand tools, are recommended for theft prevention. For more information on bike safety, rules and regulations, visit ndsp.nd.edu/parking-and-traffic/bicycle-use-rules.

Notre Dame Shakespeare Festival

The NDSF Young Company presents 'The Merry Wives of Windsor'

Award-winning director West Hylar has updated Shakespeare's comedy, moving the setting from Elizabethan England to the modern-day Midwest.

In Hylar's adaptation, Falstaff, Shakespeare's funniest character, is uprooted from Chicago and arrives in a small Midwestern town where he attempts to woo a couple of suburban wives in order to gain access to their husbands' bank accounts.

Hylar says, "The world we're creating is full of larger-than-life characters, like high-strung pharmacists, Applebee's waiters full of flair, angsty teenagers in love, and an overweight Chicago mobster who gets duped, dumbfounded and exposed by quick-thinking, fast-acting suburban soccer moms."

"The Merry Wives of Windsor" began its free outdoor tour on Sunday, July 20, and performances will continue through Monday, Aug. 25. Local performances include Mishawaka's Battell Park (Sunday, Aug. 3), Elkhart's Wellfield Botanic Gardens (Saturday, Aug. 9), downtown South Bend's Art Beat (Saturday, Aug. 16), and in front of the Main Building on the evening of Monday, Aug. 25. The 90-minute outdoor performance is free of charge, so bring your picnic blanket, lawn chairs, family and

friends to enjoy a summer evening with the Notre Dame Shakespeare Festival's Young Company.

For more information about this and other NSDF programming, visit shakespeare.nd.edu.

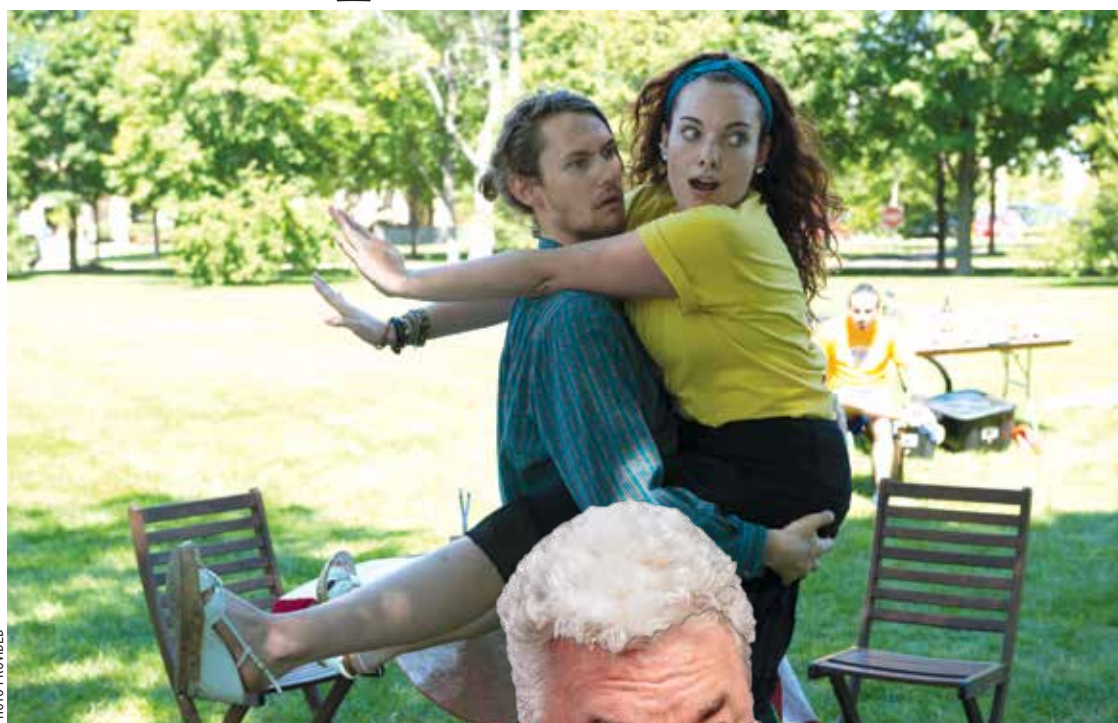
The NDSF Company presents 'Henry IV'

At the height of the Civil War, Notre Dame produced "Henry IV" as its first-ever fully produced Shakespeare play. Exactly 150 years later, we celebrate the Festival's 15th season with the same story of rebellious youth and rebels to the state.

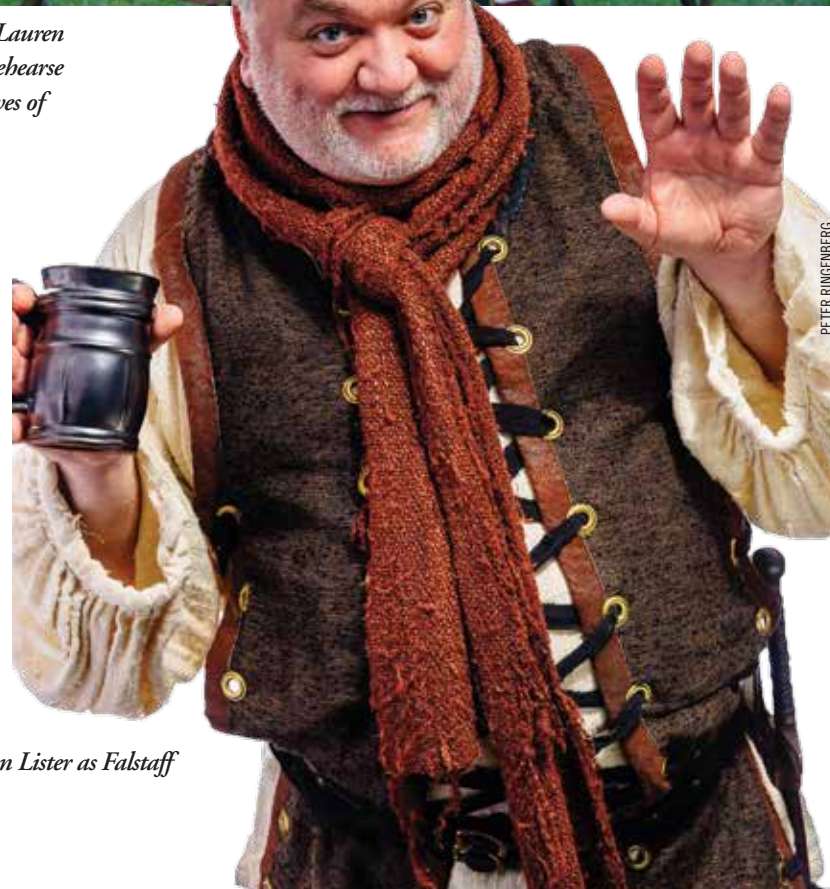
Shakespeare's "Henry IV" features one of Shakespeare's greatest creations: brilliant wordsmith and decadent party-boy, Sir John Falstaff. Balanced against a monarch, a warrior and a princely heir, Falstaff's wit and pathos loom large. In this conflation drawn from both parts of "Henry IV," two father figures wrangle for the love of a son whose destiny will rattle the rafters of the world.

Award-winning professional directors, designers and actors join the Young Company as they raise their swords (and glasses) high. See "Henry IV" live at the DeBartolo Performing Arts Center's Patricia George Decio Theatre from Tuesday, Aug. 19, to Sunday, Aug. 31. Tickets are available now at performingarts.nd.edu.

For more information about this and other NSDF programming, visit shakespeare.nd.edu.



Scott Egleston (Falstaff) and Lauren Sagendorph (Mistress Ford) rehearse a scene from "The Merry Wives of Windsor."



John Lister as Falstaff

STEM day camp for elementary school girls

Notre Dame, General Electric team up

BY BRITTANY COLLINS, NDWORKS

For the inaugural GE Girls @ Notre Dame summer camp, local fifth- through ninth-graders spent a week on campus launching rockets, building hovercraft and making robots dance.

The day camp, which takes place on college campuses around the country, is designed to introduce middle school girls to STEM activities, with the goal of encouraging them to pursue careers in science and technology. The camp has been offered at only eight other schools in the country, including MIT and Georgia Tech. This year, General Electric approached Notre Dame about bringing GE Girls to campus.

With more than 400 Notre Dame alumni in the GE network, hosting the camp at Notre Dame was a "no-brainer," says Ashley Bartowitz, an alumna and CFM56 product support

engineer at GE Aviation. "The Notre Dame Women's Network was heavily involved out of Chicago. GE Capital's in Chicago, and we used our Notre Dame alumni network to pull in volunteers."

The GE volunteers spent the week in Stinson-Remick with 30 girls from Brown, Jefferson and Jackson Intermediate Centers in the South Bend Community School Corp. Every day, the girls spent time touring, creating and learning about various STEM disciplines.

"We wanted to cover every STEM discipline, so we decided to schedule the curriculum by splitting up the days," says Bartowitz, who was the curriculum coordinator. The five days were divided into civil engineering, programming, circuits, aerospace engineering and chemical engineering tracks.

The girls crafted boats out of foil, egg cartons and plastic containers before taking them to the Clarke Memorial Fountain and Reflecting Pool giving them a test float. They designed and built hovercraft using balloons and old CDs. After touring

the engineering design deck, the elementary students built whistles made from materials from a 3-D printer. The week also included a tour of White Field, DIY lip balm and Silly Putty, Alka-Seltzer rockets and LEGO robotics.

Victoria Goodrich, director of the first-year engineering program at Notre Dame who worked with GE and the South Bend schools to coordinate the camp, said the girls loved the LEGO robotics activity. "I was really surprised at how well they received it, just because it's really challenging," she says. "It's initial coding. It's not easy to jump into that one. That's something we do with Notre Dame freshmen. The girls jumped on it really quickly. They made the robots dance and respond to the environment, like spin around when they push a button. We ended up extending the time we had for that because they were having so much fun."

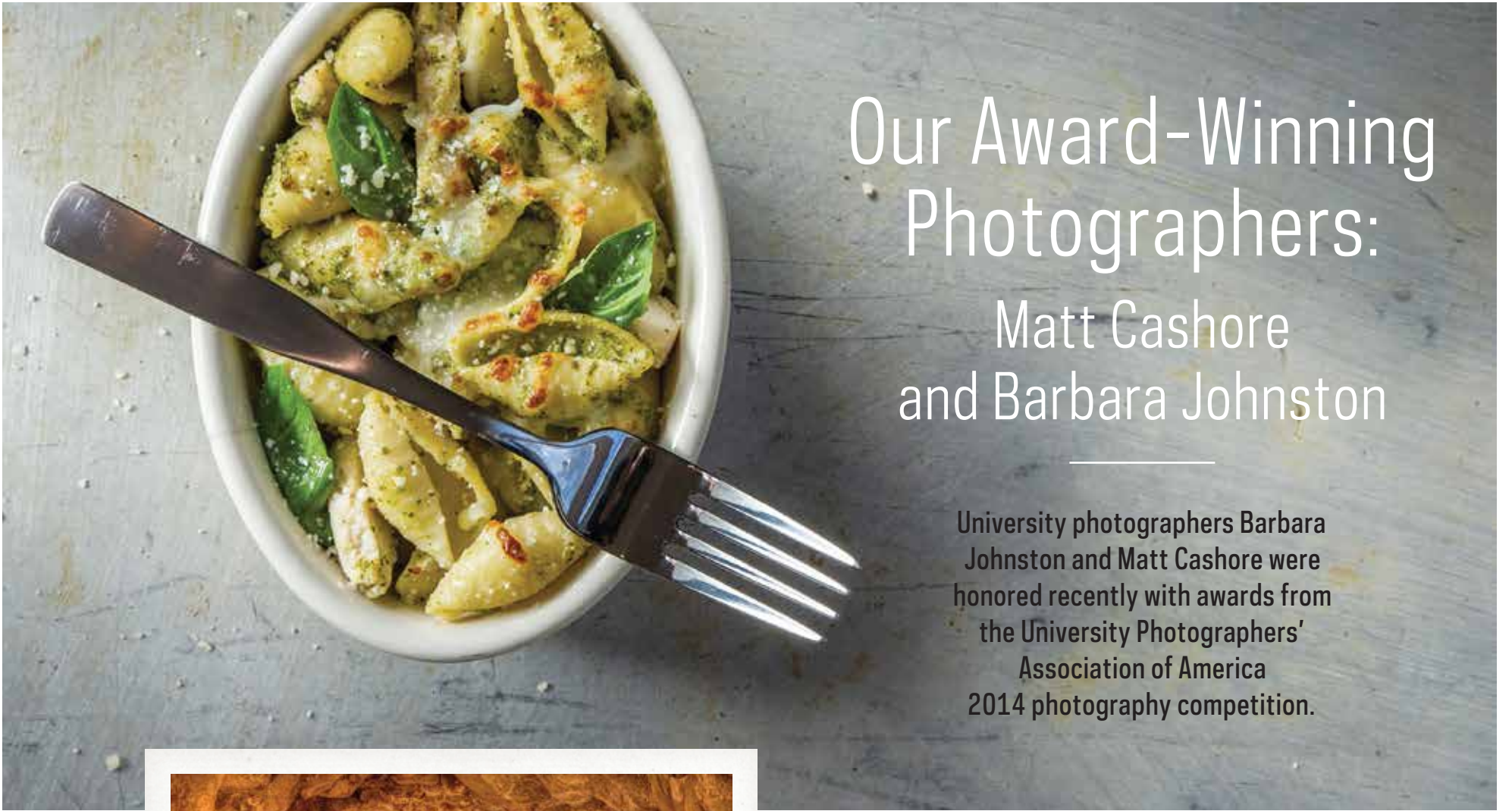
Bartowitz says the girls responded very well to the activities. The students, who had to apply to the camp, were already interested

in science before attending, but now "they're asking more detailed questions about each of the

disciplines and really wanting to know how exactly to get involved in doing this later in their lives."

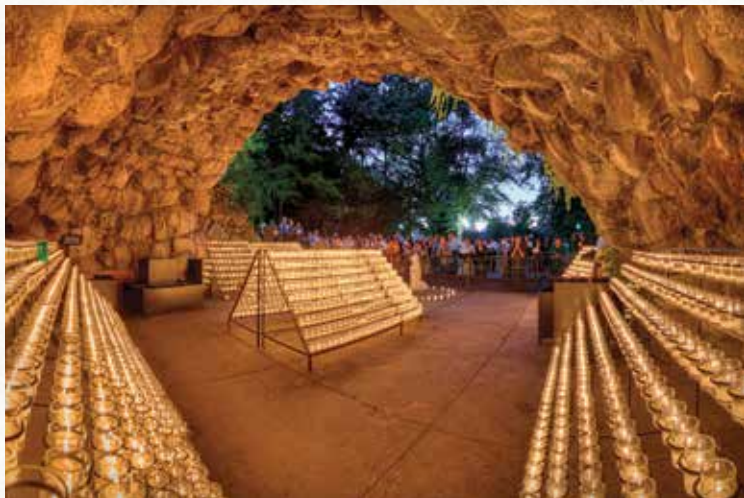


Middle-school-age girls built boats, then tested them in the library reflecting pool during the GE Girls @ Notre Dame camp.



Our Award-Winning Photographers: Matt Cashore and Barbara Johnston

University photographers Barbara Johnston and Matt Cashore were honored recently with awards from the University Photographers' Association of America 2014 photography competition.



In the print competition, Johnston took first place in the campus environment category, second place in features and illustrations, and honorable mention in science and research.

Cashore was awarded Best of Show in the print competition, first place in multimedia and first place in the overall monthly image competition.



A dish of pasta with pesto (above, by Johnston) and an aerial view of student diners (below left, by Cashore) were taken for Notre Dame Magazine's Winter 2013 food issue.

Johnston's view of the Grotto (left center) was taken for a display in the Main Building.

Above right, Cashore has taken photos of the Main Building in every light and season.

Meet the Photographers



Matt Cashore began his career as a still and TV news photographer, and has photographed the Notre Dame campus from every angle. When he's not behind the camera, he may be in the air as a licensed commercial pilot.



Veteran photojournalist **Barbara Johnston** joined the University in 2011, after a 20-year career at the Philadelphia Enquirer. She has no fear of heights.