

S U M M E R 2 0 1 6

LEHIGH

B U L L E T I N

A HERO'S STORY, FINALLY TOLD

Four days after graduating, Francis Willis '28 died while saving a 9-year-old boy from drowning. His heroism still reverberates today.



WE THOUGHT WE WERE FOLLOWING
OR SPENDING STAR,
A BRIGHT METEOR FLASH
AND THEN DISAPPEAR.



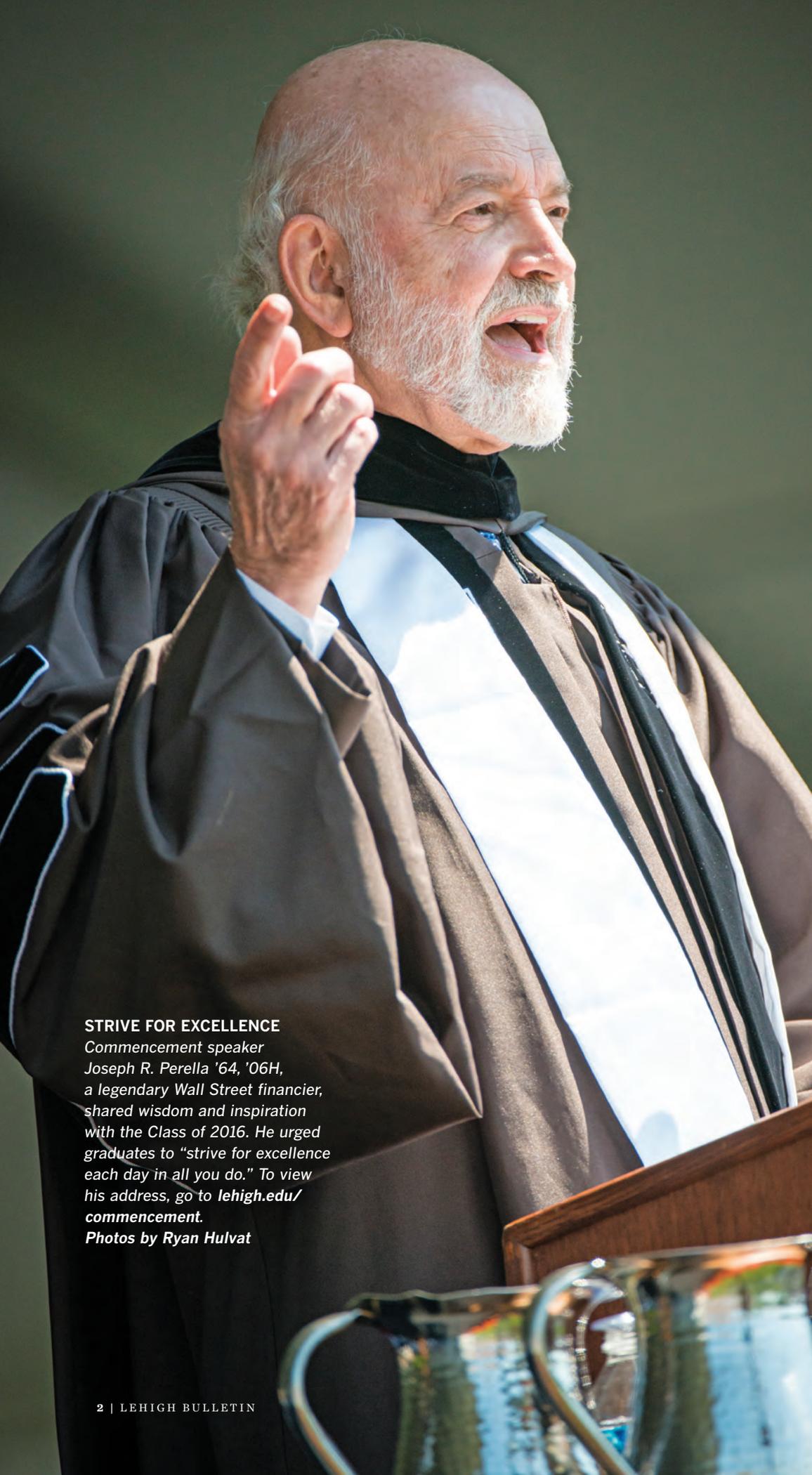


A DAY WORTH CELEBRATING

Lehigh celebrated the Class of 2016 during the university's 148th Commencement Exercises on a beautiful, sunny day at Goodman Stadium in late May. At right, graduate Miles Davis '16 rejoices.

Photo by Christa Neu

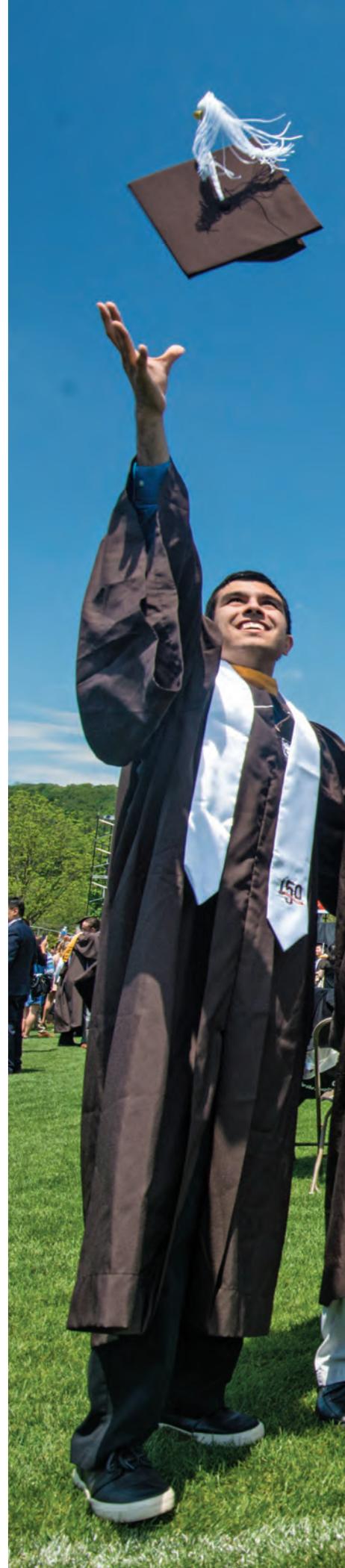




STRIVE FOR EXCELLENCE

Commencement speaker Joseph R. Perella '64, '06H, a legendary Wall Street financier, shared wisdom and inspiration with the Class of 2016. He urged graduates to “strive for excellence each day in all you do.” To view his address, go to lehigh.edu/commencement.

Photos by Ryan Hulvat







COLLEEN CORDARO

Dr. Stephen Klasko '74

An Amazing Place, Building Amazing People

EVERY ONCE IN A WHILE, I come across a story at Lehigh that serves to remind me of something that, in the day to day, I can and do often forget.

That something is this: Lehigh is an amazing place, and it helps build amazing people.

For this issue of the *Lehigh Bulletin*, I had the pleasure of interviewing two individuals who are making their mark—either on campus or in the wider world—in their own unique ways.

In February, I sat down for a lengthy interview with **Dr. Stephen Klasko '74**, the CEO and president of Jefferson Health in Philadelphia. I had been reading about Klasko for years, dating back to his time as the transformative leader of the University of South Florida Health System. More recently, I had seen his name pop up in the news all the more frequently—and with good reason. Though he's been at Jefferson only three years, he's led a nearly complete transformation of his fast-growing health system—and in the process, has helped spearhead what he terms a “revolution” in the health care industry, too. The ever-energetic Klasko has big ideas on just about everything—about Jefferson, about his industry, about higher education—and he's not shy (not in the least) about sharing those ideas. You can read more about this health care maverick in our feature story, “Talking About a Revolution.”

A few weeks later, I trekked over to the Jacobs Pool to meet with a future Lehigh graduate who also has her sights set on a career in medicine. Kaitlyn Ruffing '17, whom we profile in “Ex-

celling, at Everything,” is a remarkable young person—not to mention the representation of a Lehigh student-athlete. In the course of her standout swimming career with the Mountain Hawks, Ruffing has set six school records, earned multiple Patriot League titles, and this year, qualified for the 2016 U.S. Olympic Trials. She's also a double major in music and biology, so one might think that swimming and school would be more than enough to keep Ruffing busy. But no, this future physician also finds the time to compete as a member of Lehigh's track and field team and plays the flute in both the Lehigh Orchestra and wind ensemble. While she admits her days are sometimes hectic, Ruffing says she enjoys everything she's involved with here—and can't fathom giving any of it up. We can only imagine where her career will take her.

Klasko is a dynamo. Ruffing is remarkable. Of that, there simply is no debate.

But what's so impressive about Lehigh is that stories like these are hardly the exception here. They are the rule. Every day, our students, our faculty, our alumni and our staff are doing inspiring work—in research, in teaching, in service, in the classroom and on the fields of play. Our job here at the *Bulletin*, quite simply, is to tell these stories. I hope you will enjoy this latest batch.

Thanks as always for reading.

Sincerely,
Tim Hyland, Editor



Share your thoughts—your kudos, your criticisms, your questions—by sending your Letters to the Editor. They can be sent via snail mail to the address at right, or via email to tih313@lehigh.edu.

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LEHIGH

24 Talking About a Revolution

Stephen Klasko '74 believes the American health care system is broken. He believes American higher education is broken, too. His ambition is simple: to fix both.
By Tim Hyland

30 The Gift of Life

An act of selflessness and bravery from Megan Kienzle '17 helped save the life of a friend suffering from a rare genetic disorder. *By Linda Harbrecht*



34 A Hero's Story, Finally Told

Four days after graduating, Francis Willis '28 died while saving a 9-year-old boy from drowning. His heroism still reverberates today. *By Frank Fitzpatrick*

DEPARTMENTS

4 FROM THE EDITOR

6 FROM THE PRESIDENT

ON CAMPUS

7 Generating Ideas for Lehigh's Future

8 Random Acts of Kindness

9 Cornel West

10 A Good Day for Data

11 Bigger & Brighter

12 Celebrating Diversity

RESEARCH

13 Building Knowledge

14 Keeping Tabs on Volunteer Tourism

15 **SCHEMATIC:** Cooling the Hottest Surfaces

16 Toward More Vibrant LEDs

17 A New Tool to Fight Bacteria

CULTURE

18 Restoring a Lost History

19 Elegant Simplicity

20 Gem of the Ocean

ATHLETICS

21 Excelling, at Everything

22 **PROFILE:** Nick Shafnisky '17

NOTES

40 **LEHIGH DISPATCH**

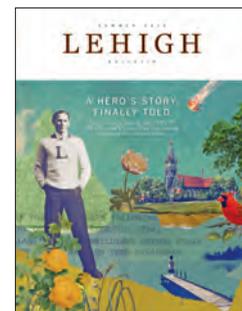
75 **IN REMEMBRANCE**

80 **COMMENCEMENT:** *Next Stop!*

ALUMNI PROFILES

47 José G. Santiesteban '89 Ph.D.

59 Masayoshi Nakashima '81 Ph.D.



ON THE COVER:

London artist Michelle Thompson created this striking image for our cover story about a forgotten Lehigh hero, Francis Willis '28.

Inspiring Alums, Inspiring Others



LATE LAST MONTH, I had the honor of overseeing Lehigh's 148th Commencement Exercises, my first since my arrival as president last year.

It was a picture-perfect day for the occasion, with warm weather and sunny skies, and the mood, as always, was celebratory. Goodman Stadium welcomed nearly 1,700 happy graduates along with thousands more proud parents, families and friends that day, and the atmosphere was marked by that wonderful swirl of emotions that only a graduation day can bring: feelings of accomplishment and joy and anticipation, all mixed with nostalgia and bittersweet goodbyes and the inevitable sadness that comes with leaving your college days behind.

These are emotions I am certain you can relate to, because as a reader of this magazine, it is more than likely that you, too, once walked across that stage—symbolically moving from one phase of life to the next.

My experience on Commencement Day, however, is unique, and certainly somewhat different from that of the graduates or families in attendance. Yes, I was proud of those young people as they claimed their hard-won degrees. And yes, I could very much empathize with their feelings of excitement and uncertainty.

But as president of this wonderful university—and as somebody who has had the great privilege of getting to know these students over the course of the past year—the one emotion that I recall most from the day was this: hope. Or, maybe more accurately, hope mixed with optimism. Because I know all too well the quality of this latest cohort of Lehigh graduates, and I know, too, the vast potential they hold.

I can tell you in all honesty that the Lehigh Class of 2016 comprises precisely the kind of young people with whom we want our university to be associated. They are bright and ambitious, yes. They are entrepre-

I CAN TELL YOU IN ALL HONESTY THAT THE LEHIGH CLASS OF 2016 COMPRISES PRECISELY THE KIND OF YOUNG PEOPLE WITH WHOM WE WANT OUR UNIVERSITY TO BE ASSOCIATED.

neurial, and they strive for excellence. But they are also generous of spirit, courageous and selfless, kind and giving. It would not be fair, then, to describe them merely as great young leaders; rather, they are great young leaders who share a great sense of purpose—an obligation to serve not only their interests, but those of their families, their communities and their world.

These qualities of character have been hallmarks of Lehigh graduates for decades now, and in this issue of the *Bulletin*, you will read about three individuals whose work and actions testify to precisely that. My friend and colleague Stephen Klasko '74 (*Talking About a Revolution*, pg. 24) has spent his entire career working in the field of medicine, and now, as CEO of Jefferson Health in Philadelphia, is working to revolutionize health care in this country, making our system not only more affordable but more successful at curing our sick. Megan Kienzle '17, a rising Lehigh senior, may at first blush look like your typical college student—but her amazing story (*The Gift of Life*, pg. 30), one of selfless giving for a friend in dire need, should serve as an inspiration to us all. And the story of Francis Willis '28 (*A Hero's Story, Finally Told*, pg. 34), who left this world far too early, reminds us that just a single moment of courage can create a legacy that lasts for decades.

As I read about these three remarkable Lehigh alums, I could not help but be proud to be associated with the institution that educated them. I hope you will enjoy reading their stories, and that their words and actions will inspire you just as much as they have inspired me.

Sincerely,

John D. Simon, President



Follow President Simon on Instagram
@lehighpressimon

ON CAMPUS

NEWS FROM LEHIGH



George White helps facilitate a discussion group.

CHRISTA NEU

Generating Ideas for Lehigh's Future

Faculty and staff brainstorm ideas around new directions

"HELP US THINK of big ideas, ambitious ideas for Lehigh."

That was Provost Pat Farrell's directive to staff and faculty in leading a series of World Café-style campus gatherings this past spring—small group discussions in which participants brainstormed ideas around new directions Lehigh should consider taking. University leaders plan to "test" the ideas with potential donors and alumni in the months to come.

"We want to make sure we're making really sound investments," said Farrell. Though the university will have to choose carefully, he said, "it's important to actually try, and I think we will, to implement some of these big ideas."

The World Cafés followed President John Simon's announcement on Founder's Day 2015 that the board of trustees would invest \$250 million in Lehigh's future. Among initiatives, the funds will be used to deepen the university's commitment to the hallmarks of a Lehigh education.

"Here's a chance for people who haven't had an opportunity ... to be part of the conversation," said Farrell. Undoubtedly, he said, people will have ideas that Lehigh's decision-makers wouldn't think of on their own. "So the very practical result is, we're going to get better ideas."

The World Café process, developed 20 years ago in California,

allows people to talk with one another, not at one another, said facilitator George White, professor of educational leadership at Lehigh. He likened it to gatherings in European cafés, where people sit around tables and have conversations about critical topics.

Participants were asked to identify "big ideas" that could be done within Lehigh's existing footprint and could impact the quality of students' education and/or the university's research reputation. Then, they were asked to identify "big ideas" outside Lehigh's existing structures that, if invested in, would enhance Lehigh's reputation and make a major difference in the world.

Rules were few: no negative or "but" statements. "We say, 'yes and ...,'" said White. "We add and grow, and so the process of these questions becomes iterative and allows for growth of an idea." As a result, "one idea is no longer my idea or someone else's idea, it's our idea that's popped out at the table."

Ideas ran the gamut, but community health care, engagement with the Mountaintop initiative, and ways to physically connect the Asa Packer and Mountaintop campuses were recurring themes.

"We're still not going to be able to do everything we could imagine," said Farrell. "But we're going to be able to do some really big things."—*Stephanie Veto and Mary Ellen Alu*



RANDOM ACTS OF KINDNESS

Free coffee, van rides, parking and breakfast—students, faculty and staff across campus were met with surprises during Random Acts of Kindness Week in February. The Community Services Office and Student Auxiliary Services coordinated the efforts to promote kindness on campus. Here’s a look at the efforts, by the numbers.



CASH CAB

Watch Lehigh students from the Community Services Office as they give people rides and ask them trivia questions. go.lehigh.edu/cashcab

47

rides up the mountain



738

baked goods delivered



145

meters designated as free parking

256



free cups of coffee and hot chocolate

130

gift cards distributed

110

employees surprised with continental breakfast

83

volunteer hours spent

A GLOBAL OUTLOOK

Cheryl Ann Matherly, former vice provost for global education at the University of Tulsa, has joined Lehigh as a vice president and vice provost for international affairs.

“This is a really exciting time to come into the university,” said Matherly, noting that Lehigh, as it wrapped up its Sesquicentennial celebrations, was envisioning its next 150



CHRISTA NEU

years. “It’s clear that global engagement is part of that future in a really strategic way.”

Matherly is credited with leading the development of the University of Tulsa’s strategic plan for internationalization, expanding study abroad opportunities, helping to create the Faculty Internationalization Grant program for faculty development, and directing efforts to develop new collaborations in China. She has authored or co-authored three books, numerous book chapters and journal articles.

Earlier, Matherly was at Rice University, where she was assistant dean of students for career and international education and director of the career services center. She has an Ed.D. in education from the University of Houston, an M.S. in college student personnel administration from Indiana University, Bloomington, and a B.A. in English literature and political science from the University of New Mexico.

A CONVERSATION WITH ... : Cornel West

Activist, educator and prominent public intellectual Cornel West delivered a soaring, often poetic, talk to an overflow crowd in Baker Hall in April. He also met earlier in the day with students.



CHRISTINA NEU

1 On neopopulism

"We have to allow the government to come to the rescue of people in dire circumstances, just like [George W.] Bush and Obama came to the rescue of big business, because you can't talk about race and class without being honest about where the money is going. It's not as if they aren't in the rescue business ... It's who they're rescuing."

2 On the impact of neo-liberal policies on the most vulnerable

"Forty-seven percent of black children live in poverty in the richest nation in the world. That's morally insane. The neo-liberals' answer is to just turn their back and flatten the world, as Brother Thomas Friedman [*New York Times* columnist] would say. We don't want a flat earth. We want an earth that's preserved, not one that has all the life squeezed out of it for profit."

3 On integrity

"So we move from 1965 to 2016 and what do we see? Read the business papers. Scandal after scandal after scandal. Big money in politics, and we wonder why we end up with such mediocre candidates. I mean, it's embarrassing. But that's what commodification can do. That's what corruption can do. We saw it in the Roman Empire. And now we're seeing it in the American Empire."

4 On the role of education

"Education is itself an attempt to try to convince all of us to learn how to die. ... We all have certain prejudices that need to die. Could be against Jewish brothers and sisters, could be Arab Muslims or whatever. History deposits inside of us things that are worthy to be killed. And how do you do that? Critical reflection. How do you do that? Courageous engagement."



STEPHANIE VETO

A Good Day for Data

The Data X Symposium and LehighHacks bring conversation and competition to campus

FIGURE 1

LehighHacks by the numbers:

\$10,000
worth of prizes

10
corporate partners

148
hackers participated

24
hacks submitted

25
mentors (both Lehigh students and corporate partners)

STUDENTS, FACULTY, STAFF and industry experts explored the transformative power of data with the university's first Data X Symposium and LehighHacks, a 24-hour, student-driven hackathon, held concurrently on Thursday, March 31 and Friday, April 1.

Gary Zenkel, president of NBC Olympics and president of operations and strategy of NBC Sports Group, delivered the symposium's keynote address. Zenkel highlighted the upcoming Rio Games, described the network's growing approach to digital media and discussed developing relationships with social media networks.

In a question-and-answer session, Lehigh Trustee Peter Diamond, executive vice president for programming at NBC Olympics, joined Zenkel and discussed how he and his colleagues use minute-to-minute Nielsen data to make programming changes throughout the Games.

Moving forward, Zenkel said, partnerships include a commitment from social media platforms to provide NBC Olympics with data as well.

"Obviously the deeper, the more granular that data is, the better off we are," Zenkel explained. "... We're hoping for some actual real-time feedback from the social platforms, giving us a sense of how [the] audience is responding to our coverage."

Three panel sessions followed the keynote, in

which industry experts and Lehigh faculty working in digital media, computing and consumer analytics discussed related issues.

"It's great to bring this kind of conversation to campus because it sparks new collaborations," said Daniel Lopresti, professor of computer science and engineering and director of Data X.

LehighHacks brought nearly 150 students to Bay C2 on the Mountaintop Campus. Participants worked in teams to use technology to create unique solutions to problems in the areas of financial technology, smart environments and social apps. The event required no prior hackathon experience, and mentors and engineers from corporate partners offered assistance throughout.

"A lot of people look at computer science and say, 'I can't do that.' They have no idea where to start, and this is a great atmosphere because it's very collaborative," said Evan Klein '18, organizer of LehighHacks.

After initial presentations to judges, the top 10 teams were selected to pitch their projects on stage to determine a final winner. First place went to Burst, a tool for sending out personalized text messages to members of an organization as part of a mass text.

The symposium closed with a reception and an awards ceremony for LehighHacks in Bay C2.—*Kelly Hochbein*

"IT'S GREAT TO BRING THIS KIND OF CONVERSATION TO CAMPUS BECAUSE IT SPARKS NEW COLLABORATIONS."

—DANIEL LOPRESTI

BIGGER & BRIGHTER

Murals by artist Holly Fields-Scott were recently added to a Lehigh service building on Adams Street in Bethlehem. The project was the brainchild of Michael DeCrosta '11, '15G, who, with a \$2,500 Lehigh grant, aimed to brighten the area and improve walkability of the South Side.



CHRISTA NEU

NEW CHIEF INVESTMENT OFFICER

Kristin Agatone, former managing director for New York-based investment firm Summit Rock Advisors, is Lehigh's new chief investment officer. She is charged with overseeing strategic management of Lehigh's endowment fund, currently valued at approximately \$1.2 billion.

"It is an honor to step into this important role at the university and become a member of the Lehigh community," said Agatone. "Working with the university trustees and leadership, I look forward to expanding the ways Lehigh's endowment can support the university's long-standing education mission—not just for the students of today, but those of future generations as well."

As a senior member of the Summit Rock investment team, she led the investment strategy for multiple asset classes. Prior to that, she worked at Harvard Management Company, which manages the Harvard University Endowment. Earlier, she worked in the private equity group at TPG Capital in San Francisco and the investment banking division at Goldman Sachs. She received both an MBA and a B.A. in economics from Harvard University.

At Lehigh, she will work with her team to develop a portfolio that will serve to support major initiatives and Lehigh's broader mission.

CHRISTA NEU

CELEBRATING DIVERSITY

Grad student Yiming Zhong plays a Zhong-ruan, a Chinese traditional musical instrument, at the 29th annual International Bazaar in April. The event, organized by the Office of International Students and Scholars, demonstrated the rich diversity of the Lehigh community. Festival-goers were able to enjoy international cuisine and individual performances, as well as dances, music and presentations from groups that included the Italian, India and French clubs, the UNICEF Club and the Asian Drama Club. Students also showcased traditional clothing from around the globe in a colorful fashion show.



RYAN HULVAT



CHRISTA NEU

WITHOUT WALLS

A Wall of Hate gave way to a Wall of Healing as students, faculty and staff came together in late March and shared both positive and negative experiences they've had on campus. The walls, erected on the STEPS lawn, were part of the Global Citizenship capstone project of Sydney Bagley '16, Brishty Khossein '16, Amie Diamond '16 and Sasha Popova '16.

Titled "Without Walls: Enriching Differences at Lehigh," the project aimed to engage the campus community in critical conversations about social issues.

First, on the "Hate" wall, people gave examples of hateful language or actions they've experienced on campus. The wall was torn down and replaced by a "Heal" wall, where members of the Lehigh community shared their hopes for Lehigh.

"A lot of people were shocked at how many people had something to say," said Khossein.

HAWK CAM

When two red-tailed hawks—lovingly named Engi and Neer in an online naming contest—began nesting on the west side of the STEPS building, the university set up a webcam to allow students and the public to watch the hawks 24/7. It became a family affair when, on April 20, the hawks' eggs started to hatch. Until the birds leave their nest, possibly in

July, you can watch them anytime at stream.lehigh.edu/hawk/.





GETTY IMAGES / KOHEI HARA

Building Knowledge

Researchers examine children's geometric learning with real and virtual building blocks



ROBIN HOJNOSKI

is an associate professor of school psychology whose research interests include the application of school psychology principles and practices to early education.

“GEOMETRY AND SPATIAL SENSE are a primary domain of early mathematical development,” says Robin Hojnosi, associate professor of school psychology. “Three-dimensional shapes are important, and how kids use shapes ... is really related to spatial sense: being able to have a design in mind and then mentally rotate to form that design and then make it happen. Those things are important to overall spatial sense and spatial development, which are key skills related to STEM [science, technology, engineering and math] fields.”

Hojnoski and doctoral student Brittany Kuder wanted to learn what child abilities relate to geometric abilities. In summer 2015, they observed more than 100 children in area preschool and child care classrooms as the children built with blocks. They administered tasks related to spatial ability, self-regulation, receptive vocabulary and picture memory, as well as assessments such as Panorama, which measures number sense.

In early 2016, Hojnosi and Kuder examined the behavioral and mathematical skills of prior participants following their respective transitions to pre-kindergarten and kindergarten. Focusing on the children's classroom participation, early math skills and social competence, Kuder and several other graduate students in school psychology collected parent and teacher behavior-rating scales, conducted classroom observations, and administered an early math skills assessment. They plan to use the data gathered to connect skills measured over the previous summer with outcomes

measured approximately six months later.

The data Kuder collected also supports the development of BuildSpace, an app that aims to replicate a child's three-dimensional block-building experience on a tablet or mobile device. The app, which began as a 2015 Mountaintop project in collaboration with Michael Spear, assistant professor of computer science and engineering and Luke Zhang '15, a computer science and engineering student, allows children to select and move shapes to build a virtual structure. Undergraduate computer science and engineering students Mike Green '16 and Chris Szafranski '18 have been working through this academic year to further refine BuildSpace so it is ready for testing this summer.

Hojnoski, Kuder and Spear will return to Mountaintop this summer with four undergraduate students and a new set of goals.

“One objective we have for this summer is to compare the learning that takes place when kids build on the app in free play versus building with the physical geometric solids in real life,” says Kuder.

The team plans an intervention study in which they'll assign children to two conditions: building with physical blocks or building on the app. The team will then evaluate the different conditions based on the spatial learning gains that take place.

“We're trying to pick skills we think the physical blocks and digital blocks will differentially target. We're thinking that children who work with the physical blocks will have greater advances in their shape description and shape identification, whereas because [the app] encourages different perspective-taking, children might have differential learning in terms of spatial visualization and mental transformation,” says Kuder.

This summer, Kuder and Mountaintop team members will use a standard battery of assessments to gather data from more children. Computer science and engineering students will tweak the app to improve user experience based on feedback gathered from children who use it.

The team will also explore the app's “back-end” data, which can provide insight into how children use the app and how that relates to measures of child development and demographic data.

“With what technology is now capable of, we can examine intricacies and patterns of children's behavior that would otherwise be difficult if not impossible to measure,” says Kuder. “This could have vast implications for advancing our knowledge base on child development.” —*Kelly Hochbein*



GETTY IMAGES / BLOOMBERG

Keeping Tabs on Volunteer Tourism

A sociologist is praised for writing a “best-practices manual.”

AN ESTIMATED 1 MILLION Americans or more volunteer each year to work overseas in hospitals and clinics, in schools and on construction sites. These international service projects often last only a week or two and are sponsored by religious groups and nonprofits, universities and corporations, and even tourist agencies that promote “volunteer vacations.”

A debate has sprung up over the motives and effectiveness of the volunteers. Supporters say volunteering can benefit the lives of volunteers as well as those they help. Critics say some programs are culturally insensitive and self-serving, lack preparation and follow-up, and can have negative economic and health effects on host communities.

What is the impact of the volunteers? How might they serve more effectively? Judith Lasker, professor of sociology, attempts to answer these questions in her new book, *Hoping to Help: The Promises and Pitfalls of Global Health Volunteering*, published by Cornell University Press.

“Although short-term international volunteering is a massive and growing enterprise,” Lasker writes, “there is very little information about what volunteers do, where they go, who is sponsoring them, and what they accomplish.”

Lasker traveled to Haiti and Ecuador with Lehigh students fluent in the countries’ languages, and enlisted colleagues to carry out interviews in Ghana and Niger. The team conducted 55 interviews with local residents who work with international volunteers. Lasker also conducted two national surveys of sponsor organizations and interviewed volunteers, their sponsors, global health experts and American expatriates.

“I’ve tried to take a balanced approach,” says Lasker. “My goal was to



JUDITH LASKER

is the National Endowment for the Humanities Distinguished Professor of Sociology. She has also written books on pregnancy loss, infertility and timebanking, in which one good deed leads to another.

look for the characteristics of programs that are most likely to provide benefits, not only for host countries but also for volunteers.

“I wanted to know how organizations know if they are being helpful. I found most do not evaluate their impact in any systematic way.”

Lasker advises global health volunteers to learn the customs, history and, if possible, some basics of the language of the host country; to stay at least three or four weeks in the country; to choose programs that provide follow-up medical care and have a long-time community presence; and to engage in activities that supplement rather than replace local talent.

“Many scholars have discussed the theory behind global aid and the various perils in its execution,” said a review in *The New York Times*. “Dr. Lasker...delivers instead a straightforward, data-driven review of a small health-related fraction of the enterprise...Anyone contemplating a volunteer stint is likely to be interested in [her] results, which amount to a sort of de facto best-practices manual.”

—Kurt Pfitzer

SCHEMATIC Cooling the Hottest Surfaces

**1 Vapor**

Inside the vapor caused by the Leidenfrost effect, droplets of liquid hover over a surface, failing to achieve efficient heat transfer and desired surface cooling.

2 Patterns

To guide the liquid droplets and cool a surface more efficiently, researchers lithographically patterned a surface with micropillars and arranged them in zones that vary according to pillar density and contact angle.

3 Kinetics

These microscale features convert the excess surface tension of droplets into a kinetic energy that propels them to hot spots on the surface. The kinetic energy, Lehigh's Manoj Chaudhury, City University's Zuankai Wang and the other researchers wrote in *Nature Physics*, causes droplets "to dislodge from the surface, take flight into the air [and] eventually get deposited in the contact-boiling region."

AS IT APPROACHES an object that is much hotter than its boiling point, a liquid forms a vapor that prevents its droplets from making contact with the object's surface. This repulsive force—the Leidenfrost effect—causes droplets to boil off more slowly than they would on a cooler surface.

Engineers at the City University of Hong

Kong, the Hong Kong University of Science and Technology, and Lehigh have learned to control the movement of liquid droplets and cool surfaces more efficiently. The discovery could improve technologies involving microfluidics, heat transfer, heat exchange and similar phenomena.—*Kurt Pfitzer*



From left, Nelson Tansu and Chee-Keong Tan

Toward More Vibrant LEDs

A graduate student advances the art of solid-state lighting

CHEE-KEONG TAN WILL NOT complete his Ph.D. in electrical engineering until later this year, but he has already made his mark on the light-emitting diodes (LEDs) that outperform fluorescent and incandescent lighting in energy efficiency.

Tan has authored or co-authored more than 50 articles for refereed technical journals and conference proceedings. Many discuss the novel semiconductor materials he has developed and their potential for improving the light-generating efficiency of LEDs.

One of those materials—a compound of arsenic, gallium and nitrogen known as dilute-As GaNAs—is believed to have advantages over the conventional indium gallium-nitride (InGaN) used for visible light emission. Tan and others have proposed diluting GaN with small amounts of arsenic to boost the intensity of all three LED colors—red, green and blue—especially red.

Last year, Tan received an Optics and Photonics Education Scholarship from SPIE, the international society for optics and photonics. In February, after winning a poster competition, Tan and six other students in the United States were invited to give a presentation to a U.S. Department of Energy workshop.

Tan employs first-principle calculations and advanced band modeling to investigate the band structures and the electronic and optical properties of materials. He designs novel semiconductor materials and nanostructures that enhance LED performance.

In an article published in *Scientific Reports*, a *Nature* journal, Tan reported that the addition of a layer of dilute-As GaNAs at the quantum level showed “high potential ... for achieving high-efficiency nitride-based LEDs in the red spectral regime.” The article was co-authored with Nelson Tansu, director of the Center for Photonics and Nanoelectronics (CPN), and Ph.D. students Wei Sun and Damir Borovac '15.

In another *Scientific Reports* article, the researchers described their work with an aluminum nitride alloy diluted with arsenic and its ability to emit ultraviolet light and potentially be used for water purification. “The addition of a minute amount of As into AlN to form dilute-As AlNAs results in a dramatic change in its corresponding electronic band structure property,” the group wrote.

In the past year, Tan has also published articles in *Nature Nanotechnology*, *Journal of Display Technology*, *AIP Advances* and *Applied Optics*.

Tan, a native of Penang, Malaysia, hopes to pursue an academic career. “I want to apply the knowledge I’ve gained and continue learning in areas including power electronics, health care applications and space applications. There are a lot of exciting things to explore, and I’m very curious.” —Kurt Pfitzer

\$3.1M FOR EDUCATION

Researchers in the College of Education have been awarded a total of \$3.1 million in grants from the U.S. Department of Education’s Institute of Education Sciences to develop programs and monitoring tools to help preschool and elementary school children in language, behavior and literacy.

L. Brook Sawyer, assistant professor of teaching, learning and technology, received a \$1.5 million grant to develop and assess the promise of *Parents Plus: Language Coach*. The online teaching tool aims to educate parents of preschool children with language impairments about techniques to promote their children’s language skills. She will work with colleagues from Teachers College, Temple University and the Oregon Research Institute.

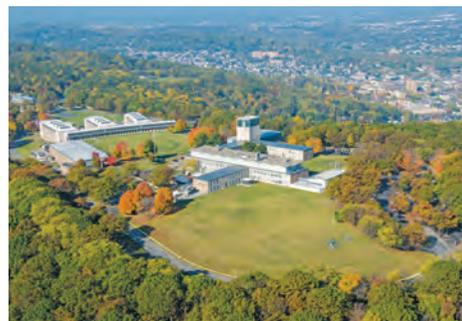
Lee Kern, professor of special education, received a \$1.5 million grant to adapt Tier 2 behavior interventions for elementary school children. She will work with researchers from Vanderbilt University in developing a framework to more easily identify and modify interventions to help children with mild to moderate behavior problems.

Also, Robin Hojniski, associate professor of school psychology, was awarded \$134,615 in IES funding to help develop measures to monitor progress in early literacy among preschoolers. The University of Minnesota will lead the four-year study, which will be conducted in three geographic locations.

FIGURE 2



Residential LEDs use up to 75 percent less energy and can last 25 times longer than incandescent lighting. Unlike fluorescent lighting, LEDs contain no mercury.



RYAN HUI/VAT

A New Tool to Fight Drug-Resistant Bacteria

Engineer seeks to disrupt the delivery of virulence factors to healthy cells

BACTERIA CAUSE INFECTIONS by delivering toxins to healthy cells. One way they accomplish this is by releasing vesicles that act as tiny envelopes transporting toxins to host cells. These toxins allow the bacteria to make themselves at home in cells.

In the search for alternatives to antibiotics, researchers are exploring untraditional infection treatments that target these virulence factors.

“Instead of killing bacteria,” says Angela Brown, assistant professor of chemical and biomolecular engineering, “we make them really uncomfortable, giving the immune system time to mount a strong response.”

Brown is pioneering a unique approach that, unlike previous methods of targeting virulence factors, has the potential to apply to a broad range of pathogens. She and her team are studying the outer membrane vesicles regularly shed by Gram-negative bacteria, which cause infections in hospitals and other health care settings and are increasingly resistant to antibiotics. The researchers are seeking to identify delivery mechanisms common among Gram-negative bacteria and then to develop broad-range antibacterial molecules that radically change the way physicians fight bacteria.

The National Science Foundation recently awarded Brown a five-year, \$500,000 CAREER Award to pursue her research.

The need for new antibiotic strategies is urgent. The U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) have identified antibiotic resistance as a significant health threat. The CDC estimates that more than 2 million people develop antibiotic-resistant infections annually in the United States, with more than 23,000 dying as a result.

Brown is systematically characterizing the toxin association of outer membrane vesicles. In her previous work, she confirmed that the composition of bacteria’s outer membrane vesicles plays a significant role in the toxin’s ability to bind with the vesicle.

Brown is now seeking to identify the specific lipid components and membrane properties that facilitate the binding of toxins to the vesicle. Her group will then investigate the toxins’ role in the vesicles’ ability to deliver vesicles to a healthy cell.

The final goal of the project will be to inhibit a tox-

in’s ability to associate with the outer membrane vesicle surface and to block it from binding with a host cell—thus treating the bacteria like an unwelcome guest.

Brown has worked for seven years with a bacterial leukotoxin (LtxA) produced by the oral pathogen *Aggregatibacter actinomycetemcomitans*. Researchers have demonstrated that the toxin is enriched in the

outer membrane vesicles produced by *A. actinomycetemcomitans*. Brown’s group recently published the results of its research into the complex interaction of LtxA with human immune cells in the journal *Molecular Oral Microbiology*. The group is now investigat-

ing three representative organisms to identify shared mechanisms that could be used as targets to develop treatment options.

Brown joined Lehigh’s faculty in 2014 after a post-doctoral appointment at the University of Pennsylvania’s School of Dental Medicine. She holds a P.C. Rossin Professorship, which is awarded to young faculty members who show significant career potential and a proven ability to reach out to other disciplines.—Lori Friedman

“INSTEAD OF KILLING BACTERIA, WE MAKE THEM REALLY UNCOMFORTABLE, GIVING THE IMMUNE SYSTEM TIME TO MOUNT A STRONG RESPONSE.”

—ANGELA BROWN



ANGELA BROWN seeks new treatment strategies for the estimated 2 million-plus people who develop antibiotic-resistant infections annually in the U.S.



CHRISTINA NEU



RYAN HULVAT

Restoring a Lost History

Berrisford Boothe helps save a treasure trove of African-American art

BERRISFORD BOOTHE, associate professor of art, was previewing his first major art auction when he struck tarnished gold—a portfolio of prints by African-American artists. Worried their value had been diluted by moisture damage and ink-transfer staining, he placed a call to his auction lifeline.

Lewis Tanner Moore, a respected curator, assured Boothe the stained prints could be restored. He also told Boothe that he couldn't afford not to bid on the portfolio.

“WE’RE DEALING WITH A COUNTRY WITH A MASSIVE TROVE OF NEGATIVE IMAGERY OF AFRICAN-AMERICANS.”

—BERRISFORD BOOTHE

Boothe bought the portfolio, had the stained prints conserved and added them to the nearly 200 works by African-American artists that he and benefactor Jim Petrucci, a property developer, have collected.

In the past three years, Boothe and Petrucci have assembled a diverse, balanced group of art objects. Last year, the Petrucci Family Foundation collection was exhibited at three institutions, including the African American Museum in Philadelphia. A fourth exhibit is set for November in Portland, Oregon.

The Petrucci collection is an educational, ethical mission by a white man from New Jersey and a black man from Jamaica.

“We’re using themes inside the African-American experience to foster cross-cultural understanding and reconciliation,” says Boothe. “We’re prompting people to ask: How can we protect these cultural assets? Who

else did our common history forget?”

“I don’t think you can really understand American history if you don’t understand African-American history,” says Petrucci. “If people can’t try to walk in each other’s shoes, we’re going to continue to slide backward.”

To help him invest wisely, Petrucci turned to Boothe. For 30 years, Boothe has been an abstract painter, a realist printmaker, an abstract/realist photographer, an installation artist and a collaborator with improvisational musicians. He’s taught African-American art and co-founded Lehigh’s Africana Studies program.

Boothe has built a collection revolving around African-American identity and history. Hale Woodruff’s “Coming Home,” a Cubist/realist linoleum cut, represents a return to the American South from 1920s Paris, where expatriate black artists co-existed with Picasso and other Cubists. Calvin Burnett’s ink drawing “Man Shortage” depicts women dancing while men are off fighting World War II. Kara Walker’s silhouette of a black woman is shouldering a larger silhouette of a white grande dame.

Boothe guided Petrucci during a 2014 sale at Swann Auction Galleries in Manhattan. Petruc-



Elegant Simplicity

Nik Nikolov wins prestigious architecture award
for his Weihnacht huts

ci paid nearly double the top estimate for “Wandering Boy,” Dox Thrash’s 1940 watercolor of a muscular young man in a white hat and shirt, sitting with a pensive, powerful gaze.

Petrucci paid an auction record for a Thrash watercolor because he believes “Wandering Boy” has a high emotional value. He plans to use the portrait as an inspirational visual model for annual tributes he underwrites for football players and top students at a troubled high school in Irvington, N.J.

Petrucci and Boothe insist their friendship has never been threatened by debates over finances or personal tastes.

“We’re very forthright with one another,” says Petrucci. “Berris suffers no fools, which I appreciate.”

Boothe has driven tens of thousands of miles to visit auction houses, galleries, museums, studios and dealers’ homes. This year, on sabbatical, he is spending more time making art and building an audience for his art. At the same time, he is helping young professionals archive the careers and lives of established, elderly, overlooked black artists.

“We’re dealing with a country with a massive trove of negative imagery of African-Americans,” says Boothe. “We don’t want to collect pretty pictures that white-wash black life. We want to collect masterworks that define humanity, that show characters in their full, most authentic human moments.”

—Geoff Gehman ’89G M.A.

AS VISITORS TO BETHLEHEM’S Christmas City Village stroll along the south end of Main Street, the steeply sloped wooden huts glow festively. Assembled during the city’s annual open-air Christmas market, the Weihnacht huts accommodate a variety of vendors hawking treats and trinkets.

The challenging task of the huts’ design fascinated Nik Nikolov, assistant professor of architecture, when the Downtown Bethlehem Association approached him with the pro-bono project three years ago.

The project had, as Nikolov describes, “two specific, very quirky” requirements: First, the 35 huts had to be easily stored, constructed, taken apart and stored again by volunteers each year; second, given the city’s limited budget, they had to be inexpensive to build.

“It was a perfect sort of storm of problems and parameters,” says Nikolov. “That perked me up completely because it’s a really interesting problem.”

Nikolov’s solution was just as interesting—so much so that the Eastern Pennsylvania chapter of the American Institute of Architects (AIA) recently recognized him with the AIA Award of Excellence, given by an independent jury of architects “for the best built project of 2015 that exhibits excellence in architectural design and promotes urban and environmental sensitivity.”

Rather than collecting, snow and rain slide off the steeply sloped huts. The polycarbonate panel roofs allow heat from the sun to collect during daylight hours, warming the huts’ interiors. The standard-length polycarbonate panels and 2-by-4-foot rafters require no cutting, and the triangles cut from each 4-by-8-foot panel of plywood are used in one of the structures, generating no waste. The materials for each hut cost approximately \$280.

Nikolov feels a sense of satisfaction in seeing his simple and elegant design become a signifier of a local tradition. Recognition from the AIA for his work adds another level of gratification.

“This is strictly a professional award, and as such it’s a great recognition for your colleagues to recognize that you did something worthy of being ‘best of,’” says Nikolov.—Kelly Hochbein

FIGURE 3



Bethlehem welcomes more than 1 million visitors during the Christmas season.



Gem of the Ocean

Artist-in-residence Akin Babatundé directs a cast of faculty, students and community members in the August Wilson play



REIMAGINING HISTORY

With *Gem of the Ocean*, playwright August Wilson “is reimagining, remaking history in the present,” said Williams. “He is centering the African-American experience.”



CHRISTA NEU

DARIUS OMAR WILLIAMS, assistant professor of theatre and Africana Studies, was 17 years old when he met his professional mentor—noted actor, director, writer and teacher Akin Babatundé. Williams, then a student at Jackson State University and an intern at Mississippi’s New Stage Theatre, was “mesmerized by how [Babatundé] worked his craft.”

This spring, Babatundé, who has been a resident company member of many respected theatrical institutions and has appeared on several network television dramas, brought his more than 40 years of theatre experience to Lehigh as the first Theodore U. Horger ’61 Artist-in-Residence for the Performing and Visual Arts. He directed the department of theatre’s production of *Gem of the Ocean*, the first installment of playwright August Wilson’s 10-play, decade-by-decade chronicle, *The Pittsburgh Cycle*, which relates 20th-century African-American life.

Gem of the Ocean was nominated for a 2005 Tony Award for best play. At Lehigh, its cast included students, community members and two faculty members—Williams and Kashi

Johnson, associate professor of theatre, both professional actors and members of the Actors’ Equity Association.

Williams and Johnson appreciated the opportunity to act alongside their students.

“We felt that it would be a great opportunity and a great experience for the students to interface with faculty members who are also actors,” said Williams. “This was an opportunity ... for them to witness both of us working through our craft.”

“Seven out of the eight student actors in the cast have either studied with me or are currently enrolled in one of my classes this semester,” said Johnson. “It’s been a blast acting alongside each of them. I’ve been able to role model the professional expectations of what it means to be an actor in a play, and ultimately bond on a deeper level with so many of them, based on this unique experience. Every night they’ve inspired me to give my best, and I’d like to think I’ve encouraged them to do the same.”

Babatundé was thankful for the opportunity, and in particular for the collaboration he found with the production’s artistic team.

“To see that come to life and evolve is just magnificent,” he said. —*Kelly Hochbein*



STEVE BOYLE

Excelling, at Everything

Ask Kaitlyn Ruffing why she chose Lehigh, and her answer pretty much boils down to this: She wanted to go somewhere where she could do as much as humanly possible.

Three years into her Lehigh career, that's precisely what she's doing. Ruffing '17 is one of the most accomplished swimmers in Lehigh history—a holder of six all-time school records and, this year, a qualifier for the 2016 U.S. Olympic Trials. But to describe Ruffing as just a great swimmer doesn't even begin to tell her full story. She is a swimmer, yes, and a very good one at that. But she's also a varsity track athlete, a committed musician and proud member of the Lehigh Orchestra, and a Dean's List student double-majoring in music and biology with her sights set on medical school. Her days often start before dawn in the pool and don't end until after 10 at night with the orchestra, and even for someone as driven and talented as Ruffing, the multiple and often overlapping demands can be a lot to juggle.

But she says she just can't fathom giving any of it up. "I get that question all the time," says Ruffing, a native of Murrysville, Pa., near Pittsburgh. "But I really love to do all of the things that I do. Playing in the orchestra might be my favorite thing at Lehigh, but I love competing in sports, too. The academics are the academics, but I love doing them, too, so I can one day become a doctor."

That, of course, remains her long-term goal: getting into medical school and ultimately becoming a physician. In the short term, though, there's more than plenty to keep her busy. And that starts in the pool.

Though she is passionate about both swimming and track, Ruffing says she is a "swimmer first." And one look at the Lehigh record book confirms precisely that.

"I'M NOT GOING INTO THIS THINKING THAT I NEED TO MAKE THE OLYMPICS. IT'S JUST AN AMAZING OPPORTUNITY TO BE ABLE TO GO TO THIS EVENT."

—KAITLYN RUFFING '17

She is the Lehigh school record holder in the 100 Free, the 200 Medley Relay, the 400 Medley Relay, the 200 Free Relay and the 400 Free Relay and, most notably, the 50 Free. That's her signature event, and the one in which she registered a time of 26.14 to earn a spot in the Olympic Trials this summer. Her qualification there counts among her most treasured achievements in the sport—though it is one that was almost taken away.

Ruffing's time in the event that day was good enough to get her into the trials. Three stop-watches held by the poolside judges confirmed as much. Unfortunately, her lane's touch pad—used to automatically and precisely confirm a swimmer's time—failed, leaving Ruffing in limbo as meet officials discussed how to move forward.

"That was insane," she says. "[But the judges] were really pulling for me to have the time count. They were saying, 'Why have the watches if we're not going to count them?'"

In the end, the time counted, which means Ruffing will be joining some of the nation's very best swimmers in late June for the trials in Omaha, Nebraska. She'll be competing with dozens of top competitors for the right to grab just one of the few spots available for the Olympic Games themselves. Ruffing says she's realistic about her chances. "I'm not going into this thinking that I need to make the Olympics," she says. "It's just an amazing opportunity to be able to go to this event."

And once the trials are over? Well, there will be no rest for the weary. Ruffing will be taking the MCATs this summer, with the ultimate goal of scoring high enough to get into her dream school, the University of Pittsburgh School of Medicine. Then the fall will arrive, and the cycle will begin all over again—swimming, running, music, academics.

It's hectic, sure. But it's also precisely what drew Ruffing to Lehigh in the first place. "It's been everything I could have hoped, and more," she says. "I think Lehigh really gives everyone a chance to not do just one thing, but the chance to explore whatever it is they really want to do, and do a lot of different things along the way."

—Tim Hyland

PROFILE Nick Shafnisky '17



Rising senior Nick Shafnisky, who was the star of the Mountain Hawks' 49-35 victory over Lafayette in the 151st playing of The Rivalry, talks football, the joys (and burdens) of quarterbacking and his team's goals for the season to come.

MAJOR: Sociology/Anthropology

POSITION: Quarterback

HOMETOWN: Whitehall, Pa.

HONORS: In 2015, was named MVP of the 151st playing of

the Lehigh-Lafayette game after throwing for 283 yards and four touchdowns while adding 109 yards and another touchdown on the ground. Completed 67 percent of his passes on the season, and was third in the Patriot League

with 12 rushing touchdowns. As a sophomore in 2014, started 11 games for the Mountain Hawks, completing 60 percent of his passes for 2,373 yards and 14 touchdowns and rushing for 526 yards and six scores. As a freshman, contributed on special teams and saw time at quarterback in four games. In high school, earned First Team All-Lehigh Valley Conference

honors and was named league MVP.

HOW I GOT STARTED IN FOOTBALL:

"My pops pretty much started me at the age of 6 or 7 for the Hokey Eagles (a youth football club in Whitehall, Pa.), and I've been playing every year since."

THE BEST THING ABOUT PLAYING QUARTERBACK IS ... :

"... being able to control the tempo

and speed of the game."

THE BIGGEST CHALLENGE ABOUT PLAYING QUARTERBACK IS ... :

"... being one of the leaders on the team for the younger guys to always look up to."

WHAT IT'S LIKE TO PLAY IN THE LEHIGH-LAFAYETTE GAME:

"It's an unbelievable experience through-

out the whole week leading up to it."

WHY BEATING LAFAYETTE MATTERS:

"Not only does our team have the passion to beat them, but throughout the week the whole campus does as well."

MY GREATEST ACCOMPLISHMENT AT LEHIGH, EITHER ON THE FIELD OR OFF, SO FAR:

"Beating Lafayette in the 151st meeting

STEVE BOYLE



‘Iron Sharpens Iron’

Wrestling recruits rank among the best in the nation

SOME OF THE MOST highly ranked high school wrestlers in the nation highlight the 2016 Lehigh recruiting class announced this spring by head coach Pat Santoro.

The acclaimed class was ranked fifth in the nation by InterMat. It includes four incoming freshmen who were ranked among the Top 100 prep wrestlers nationally.

“It’s a class with good wrestlers, but we were fortunate enough to also get some really good character kids,” Santoro said. “I’m a big believer in ‘iron sharpens iron.’ With the addition of this class, every weight class will be competitive.”

The highest-rated member of the class is Jordan Wood, a heavyweight from Boyertown High School. The No. 10 overall recruit in the class of 2016 according to InterMat, Wood amassed a 149-5 career record, including a perfect 20-0 junior season that resulted in a state championship.

Joining Wood this coming fall on South Mountain will be Luke Karam, a Lehigh Valley native and three-time state champion for Bethlehem Catholic. One of three Bethlehem Catholic grads on the roster, Karam was ranked 15th in the Class of 2016 by InterMat. He is a four-time district and regional champion.

Chris Weiler, the nation’s 19th ranked recruit, comes to Lehigh from prep school power Wyoming Seminary. He is a two-time National Prep All-American and won a National Prep title at Lehigh’s Stabler Arena at 160 pounds in 2015.

The fourth Top 100 grappler in the class is John “Jake” Jakobsen from Stroudsburg High School. A three-time state qualifier, two-time finalist and the 2016 state champion at 195 pounds, Jakobsen was considered the No. 80 recruit in the nation.

The remaining members of the class are: Dylan Ammerman (Dushore, Pa.); Aaron Burkett (New Paris, Pa.); Kyle Gentile (Sellersville, Pa.); Nick Farro (Morristown, N.J.) and Joe Lobeck (Lancaster, Pa.)

The Mountain Hawks finished 14th at the NCAA Championships last season, crowning three All-Americans for the third straight year. While the team loses eight seniors to graduation, including three All-Americans, it also returns eight previous NCAA qualifiers and three All-Americans.

“We’re excited about the future—where we are and where we’re going,” Santoro said. “I’m looking forward to getting this class on campus and getting started.”—*Steve Lomangino*

last year, and sending our seniors out the right way.”

MY HERO IS (AND WHY): “My mom. She takes care of me way more than she should have to, and always wants what’s best for me.”

TEAMWORK IS ALL ABOUT: “Trusting one another. And knowing every guy is working to get better every day.”

HOW I LEAD: “I lead

by pushing the guys on our team to be better, while building relationships with all of the guys.”

OUR GOALS FOR THE SEASON TO COME ARE ...:

“ ... going undefeated in the regular season. Winning the Patriot League Championship. And then making a run deep into the playoffs.”





TALKING
ABOUT A

REVOLU+ION

Stephen Klasko '74, CEO of **Jefferson Health** in Philadelphia, believes the American **health care system** is broken. He believes American **higher education** is broken, too. His ambition is simple: **to fix both**.

BY TIM HYLAND
PHOTOGRAPHS BY CHRIS CRISMAN

It's a chilly Tuesday morning in Center City Philadelphia, and inside the offices of Jefferson Health, Dr. Stephen Klasko '74 is dancing.

To the Van Morrison tunes blasting from his stereo, he dances. From his corner office out to greet a visitor, he dances. During a photo shoot, in between poses, he dances, and chats up the photographer, and cracks jokes, and, of course, asks his assistant how long he has until his next meeting.

This is a man who talks nonstop. Who moves nonstop. Who ideates nonstop.

With Klasko around, it's constant motion, and it's constant energy, and it's hardly what you might typically describe as executive-suite behavior. But this obstetrician-turned-health-care revolutionary is hardly your typical executive, and if he's made anything clear over the course of an impressive career, it is this: He's going to dance, and he's going to dance quite intentionally to the beat of his own drummer. Because, quite frankly, he thinks his drummer is playing the right song.

Klasko arrived at Jefferson Health in 2013 with the reputation as something of a rebel in the generally staid health care industry, and in the three years since, he's done little to change that perception. After leading massive organizational change (and fueling substantial growth) at the University of South Florida Health System and serving as dean of the fledgling Drexel University College of Medicine, Klasko has at Jefferson done nothing less than completely redefine one of Philadelphia's oldest institutions.

In just the past year alone, Klasko has pushed through a series of mergers and acquisitions that will transform Jefferson from an urban academic medical center with revenues of \$1.8 billion into a regional powerhouse with revenues nearing a staggering \$5 billion. The mergers will see Jefferson take under its wing not only three major Delaware Valley health systems—Abington Health, Aria Health and Kennedy Health—but also, eventually, Philadelphia University, a traditionally design-focused university with no connection to the world of health care at all (that deal, he admits, was not an easy sell with his trustees).

The deals and mergers have been cataclysmic for the Philadelphia health care and higher education scenes, but talk to Klasko about his still-unfolding strategy and it becomes clear his plans for Jefferson go far beyond growth alone. What he's really striving for, he says, is revolution.

During a lengthy interview with the *Bulletin* late this winter, Klasko spoke not just about his plans for Jefferson (and they are bold plans, indeed) but also his more broad thoughts on both the health care and higher education industries.

To hear Klasko tell it, those industries share one thing in common: They are broken. His stated intention is to help fix both.

You have been very vocal in your belief that health care needs to change—and change substantially. Why?

It's become very obvious to me that we are going through the largest revolution in a century as it relates to health care. And yet, I look around, and everyone is still acting the same way they always have.

We talk a lot here at Jefferson about going from a Blockbuster model to a Netflix model for health care, and to me, the reason is clear. You look at Blockbuster and somewhere along the way, it lost track of the idea that the product it was selling was the entertainment—not its stores. The product was the entertainment. After all, if I'm a customer, and I can get the same product from Netflix right in my mailbox as I could at Blockbuster, why on earth would I go to the store?

I recognized fairly early on that health care was in a similar sit-

uation. I've had a few aha moments, and one of them is this: The real product of an academic medical center is not the hospital itself, or the buildings that comprise it. The product is the care and the caring it provides. Jefferson has a 100-year-plus history of being the place you go to for great care and great caring. So the question I had to answer was, 'How do I take that outstanding legacy and turn this institution into a new and more entrepreneurial kind of place?'

It seems as though a big part of your answer to that question has been about mergers with other health systems, and expanding Jefferson's geographic footprint. How have you approached this massive expansion? And how have you been able to win over these new partners and get them to join with you?

The traditional model of the academic medical center merger is what you'd probably describe as a hub-and-spoke model. But I don't know about you—I don't like being a 'spoke.'

So when we started this process, we took a direction that others hadn't before. When we were speaking with Abington Health [about a merger], for example, and I was trying to differentiate us [from our competitors], I told them, 'You know, I know the other guy is going to treat you as a spoke. But if you come with us, you'll be a hub, and we'll be a hub.' If you look at the Abington merger, we were competing with several other systems there. With the Aria deal, we were up against a bunch of completely different folks. And with Kennedy, with a completely different set of folks again. So I think the message worked.

Why do you think that was, exactly?

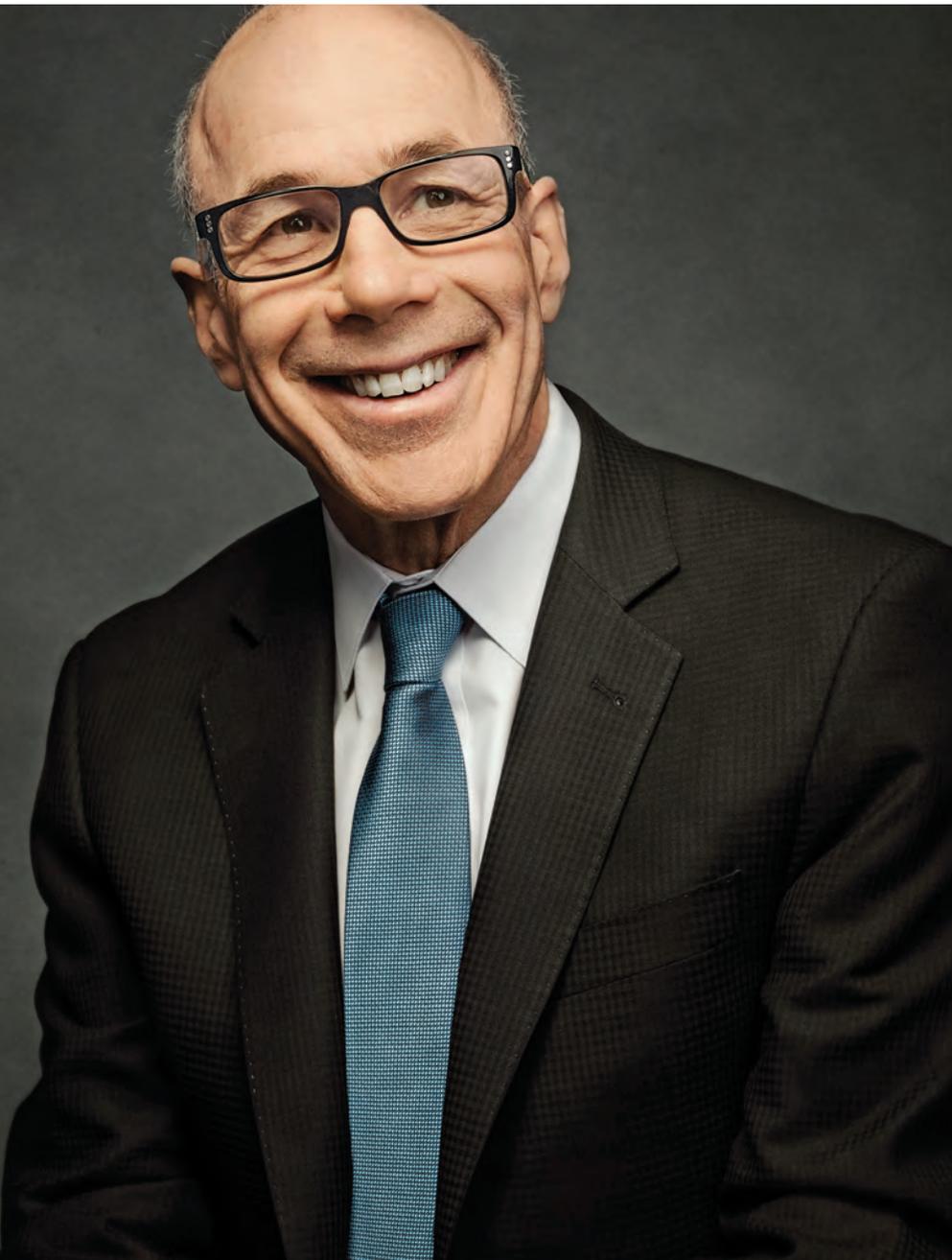
We recognized and made clear that we believed we needed to be bigger, but not just bigger for bigger's sake. We wanted to be a place that was large enough to really explore this very philanthropic/entrepreneurial/academic model that I see as the future, but we wanted our potential partners to know that while there may be bigger places out there than us, and while there may be places more highly ranked than us, there won't be many that have all of the things going for them that we do, with a truly shared governance and a really strong sense of partnership. And so when something with Abington happened, well, that got other people to take notice. So when Aria was looking around for a merger, we could say, 'Don't come to talk to us about us, go talk to Abington about us.'

"I think sometimes, just like with health care, that we just need to get over ourselves. We keep trying to tinker with a failed model. It's a model that says we get to charge a ton of tuition for a course that, by the time these students take it, is probably irrelevant. In that sense, I give kudos to Lehigh for something like Mountaintop."



This is a substantial organizational change for Jefferson, and there are a lot of power dynamics at play. Was this vision for growth difficult to sell?

Well, I think the real heroes in all of this are our trustees. Every one of these mergers has been negotiated under a shared governance model. We're going to go from a \$1.5 billion operation to more than \$4 billion by the time this is all done, and in the process, the Jefferson trustees are actually going to be a minority on the board. This is a very different model. But at the end of the day, what I knew and what I saw in my previous lives at Drexel and USF was that health care was undergoing a revolution, and I knew that if Jefferson was going to be a leader in that revolution, we needed to change the vision for the institution. What we're doing is really reimagining health care and medical education.



What were the concerns among your stakeholders that you had to address?

There are different answers for each group. From my point of view, we've got four stakeholder groups—the trustees, the management team, the faculty and staff and the community. There were legitimate concerns [we needed to address]. But I think the one word that I would use here as a key to the process is this: over-communicate. I really tried to do that.

On my first day, I sent out emails to all 14,000 of our staff saying, 'Hi, I'm your new president. What's the one thing we should change here at Jefferson? What's the first thing you would do if you were me?' And you know what? I got more than 1,000 responses. I think that sent a signal [that we were listening]. I made sure to address the staff. I held town halls. I had lunches with the faculty. We really tried to over-communicate along the way.

The trustees must have been a particularly interesting group for you to win over. As you said, with each move you made, you were not only taking Jefferson on a new and completely uncharted path, but you were also reducing their power, in a way.

I started working on that conversation, I think, even before I even got the job. Because in truth, I was a bit of a different candidate in the first place. I'm a very different kind of person than you would have traditionally looked at for a job like this. But the trustees chose me, I think, because they knew that in order to go to the next level, they had to transform this place. So I reminded them, 'Hey, you didn't bring me in here as a heavy metal band to ask me to play classical music.' I think they were committed to that idea. So even with something as big as merging the hospital and the university—this was a major change—they were positively disposed to at least giving that a shot.

I want to shift to higher education for a moment. Much has been said about the challenges facing this industry, but I'm wondering if you agree with those who say it's on the cusp of some real and fundamental change—potentially negative change.

Yes, I think that's true. Just like health care, higher ed has really missed out on the consumer revolution. Academics are holding on to a totally outdated model,

where a bunch of faculty members get together and tell a bunch of millennials what they need to learn—and they do it in a way that says, ‘I’m going to teach you the way I learned, because that’s the way I learned.’ But this is totally antithetical to the reality of students today. I think sometimes, just like with health care, that we just need to get over ourselves. We keep trying to tinker with a failed model. It’s a model that says we get to charge a ton of tuition for a course that, by the time these students take it, is probably irrelevant.

In that sense, I give kudos to Lehigh for something like Mountaintop. That’s a great experiment that ought to be expanded, and I hope we see more and more Mountaintops at other universities, too.

Some believe that we are going to start seeing universities closing their doors. Do you agree?

Yes, I believe that some of the non-creative, medium-sized schools out there that try to continue to charge tuition at a very high level while doing the same thing will be in trouble. But as the *Philadelphia Inquirer* recently pointed out [in its coverage of the Philadelphia University merger], neither Philadelphia University nor Jefferson will be among them.

Philadelphia University thought very long and very hard about who they wanted to partner with. It wasn’t a university that was in trouble—it was a university that was doing well. They can boast about a 95 percent job placement rate for their graduates. Their president, Stephen Spinelli, believes as I do that in higher ed these days you can’t afford to just tinker with the existing model.

I know you said there were some challenges selling your team on the health care mergers, or at least the scope of them. I am guessing the Philadelphia University move was even more difficult.

Honestly, yes, this was the hardest one for my trustees to get. Here we are as a health sciences university, and there they are with a big focus on design. But I felt strongly that there were some really interesting synergies there—synergies between design and health. A big future of health care is going to be built around patient experience, and that is largely about design.

Here’s the big question everyone in our world is asking: How does higher ed fix itself?

We have to come up with a new model, period. Look, higher education is very expensive. And this is where academia and health care are like so very few other industries, because academia and health care are among the few industries in which the market doesn’t determine what you pay for something.

I’ve got a story that can help illustrate this. My son is an actor in New York. Recently we heard from him that he had come down with a bad case of food poisoning, and it was bad enough that he had a two-hour stay in the hospital. Now, that two-hour stay generated a hospital bill of \$8,000. It was like, he got there, they gave him an IV, and he felt better—and he told them that, by the way—but then they made him get another. That’s like going to Applebee’s, having a sundae, telling them it was good, and then them saying, ‘OK, here, have another, and we’ll charge you for that one, too.’ It’s the same in academia, where the model is largely about a group of individuals standing up and giving lectures about what they deem you need to know, and then their universities charging whatever it is they want to charge you.

In your new book, *We CAN Fix Healthcare: The Future is NOW*, you suggest that Republicans and Democrats could in fact collaborate on a new future for health care. Given the current political climate, doesn’t that seem a bit like science fiction?

Well, we wrote it as science fiction, because science fiction allows us to shift perspective. Imagine you’re in the future looking back. What key things did you do in 2016 that led to the ideal health care future of 2026? Science fiction allows you to play out new answers. But when we look at the things disrupting the old health care today, they’re not science fiction. We could move ahead right now. And based on my list of the 12 disruptors leading to the demise of the old health care, the two parties could easily agree to get on board. In fact, we propose platforms for each party that simply use different avenues to get to the same changes. We must enable the consumer revolution in health care delivery. We must reimagine the system as a whole to create access and value. And we must demand that physicians of the future are humans, not robots, because robots will do the memorization and data analysis of the future. Physicians need to do what only humans can do—observe, not just see, and communicate, not just tell.

You’ve set a lot of things in motion at Jefferson. But I’m wondering: In 10 or 20 years from now, where would you like the institution to be?

The answer I’d give you is this: If you were to come down here to Philadelphia from Mars 20 years from now and ask somebody, ‘Hey, where’s Jefferson?’ my hope would be that they would look at you with a real look of incredulity on their face. Because I want the answer to that question to be: ‘Jefferson is everywhere. Jefferson is on my television. It’s at one of the many urgent-care centers around the region. It’s over in Northwest Philadelphia, on the campus of Philadelphia University. It’s the place that really sick people go to get better.’ I want Jefferson to be more than just a building or buildings. I want us to be a completely reimaged and transformed health care enterprise. When you think of the Mayo Clinic, you have an image that pops up in your mind. When you think of Johns Hopkins, you have an image that pops up in your mind. One day, I want Jefferson to be an image in your mind in the same way—that’s what I want for this place. **L**

“On my first day, I sent out emails to all 14,000 of our staff saying, ‘Hi, I’m your new president. What’s the one thing we should change here at Jefferson? What’s the first thing you would do if you were me?’ And you know what? I got more than 1,000 responses.”



Megan Kienzle '17, at left, and Leanne Purcell enjoy an afternoon at Chanticleer garden in Wayne, Pa.



STORY BY LINDA HARBRECHT

PHOTOS BY CHRISTA NEU

THE GIFT OF LIFE

AN ACT OF SELFLESSNESS AND BRAVERY FROM
MEGAN KIENZLE '17 HELPED SAVE THE LIFE OF A FRIEND
SUFFERING FROM A RARE GENETIC DISORDER.

If you would have told Megan Kienzle's mother that her daughter would one day be willing to sacrifice a semester of her junior year to undergo a risky, excruciatingly painful surgery to donate part of a vital organ to a friend, she would not have been surprised.

"It's actually typical of her to be that caring and that generous," said her mother, Cynthia, speaking by phone from the family's winter home in Utah. "She's just a kindhearted, warm, sweet girl. She always was."

For Megan, who came to Lehigh from Malvern, Pennsylvania, the experience was a surprisingly emotional and rewarding one that cemented her career plans. She is on the clinical and behavioral health track with a minor in health, medicine and society, and plans on becoming a psychologist.

"I'm just so thankful it all worked out," said Megan, who was in Florence, Italy, for a 2016 Study Abroad semester. "I feel completely myself and back to normal, and I'm able to live life to the fullest."

Her unexpected experience began at the start of the Fall 2015 semester, when she learned that the younger sister of her then-boyfriend—fellow Lehigh student Brendan Purcell, who is pursuing his graduate degree in accounting—suffered from the rare genetic disorder Wilson's disease. The disease affects the body's ability to process copper, which can build up in the liver and cause it to ultimately fail.



Leanne Purcell was placed high on the national list for a new liver from a deceased donor as her family investigated the possibility of a living donor. The living donor had to meet highly specific criteria: be either a matching blood type or possess universal donor O negative blood, be in the 18-34 age bracket and in excellent health, and be either as tall or taller than Leanne's 5-foot-8 frame. A biopsy must be performed and an MRI completed to determine if the locations of the bile ducts and blood vessels in the donor's liver allowed for safe dissection and implantation in the recipient's body.

With no deceased donors on the horizon and the window for Leanne's survival rapidly closing, Megan volunteered to be tested.

"That's when everyone started to panic," recalled Megan. "I knew I met the criteria, so I'd been feeling that I could have been an option the whole time."

When all family members were determined to be ineligible donors, Megan began the process of preparation. Counselors at the hospital met with her to emotionally prepare her for the ordeal, which would involve extreme pain for the first week, limited mobility for several more



"Even though I was terrified, the idea of Leanne not making it was even more terrifying."



weeks, and a recovery period that would extend into several months. There was the risk of complications, and she would have to sacrifice her entire semester at Lehigh, where she had an active life that included leadership positions with Gamma Phi Beta and service in the Greek Peer Mentor program.

"I also met with the surgeon on Leanne's case, and he explained the surgery in intricate detail," Megan said. "He made me feel extremely comfortable with it. Even though I was terrified, the idea of Leanne not making it was even more terrifying."

Leanne's struggle, Cynthia said, took a toll on Megan emotionally. "It was very hard for her to see Leanne go through so much. And let me tell you, as a mother, it's very difficult to have a daughter come to you and say that she wants to do this. But she just couldn't stand by and not do what she could to help Leanne."

Testing was done on a Monday in early September, and Megan learned she was a complete match on Tuesday. At 6 a.m. the next morning, Megan was wheeled into an operating room at Alfred I. DuPont Hospital in Wilmington, Delaware, for a surgery that would last 10 hours while

the left lobe of her liver was extracted and transplanted to Leanne on a surgical table beside her.

A patient liaison came out every hour to keep the families updated. "That absolutely saved me," Cynthia said. "We were so worried, of course, and hoping everything is going well. I can't even remember parts of it. But between our family and Leanne's family, we all supported each other and got through it."

Typically, both the donor's liver and the recipient's liver quickly regenerate, achieving full size within a matter of weeks. A remarkable amount of the growth occurs during the first two weeks following the surgery, making the recovery process extremely important. A slower phase of growth takes place over a year.

Leanne was one of roughly 6,000 patients who undergo a liver transplant each year, according to the United Network for Organ Sharing (UNOS). Not all are as fortunate as she was. About 20 percent of the patients waiting for a donor die before a suitable one is found. And many suffer from complications that can range from bleeding and infection to outright rejection.

In Leanne's case, three more surgeries were needed to address a leaking artery and a blocked bile duct. Her body's initial rejection of the donated liver meant two months in the hospital, hooked up to an IV containing immunosuppressant drugs for eight hours each day. She was able to leave the hospital by Thanksgiving, Megan said, "and we're ecstatic that she's home and beginning to lead a normal life again."

Megan's recovery wasn't as life-threatening, but difficult nonetheless.

"I woke up the next morning with no recollection of what happened, but feeling like I'd been hit by a bus," she said. "It really felt like somebody cut my body in half."

A t-shaped scar traversed her entire abdominal area—"Bikini season is over for me," she said—and a device that held her ribs open for the length of the surgery resulted in tremendous discomfort.

She spent several days in the hospital's ICU and wasn't able to sit up until 72 hours after the surgery. Within a week, she was allowed to walk. At the six-week mark, she was allowed more mobility but still experienced considerable pain. "Since my abdominal muscles were completely cut through, I had no core strength at all," she said. "I needed to be helped off the bed or couch every time I wanted to get up."

Fortunately, she said, she had the constant support of her mother, her father, Rick, and her younger sister, Abby, who is a certified nurse.

"She gave me blood-thinning shots once a day and helped me ration out the pain medication," she said. "She stuck by my side every single second of every single day in the hospital and at home. I'm really not sure what I would have done without her."

With Leanne's recovery complete and only lingering issues such as weak stomach muscles and minor back pain to contend with, Megan said she has moved on from the ordeal.

"My experience really renewed my enthusiasm to return to Lehigh," she said. "Sometimes it is easy to take everything for granted, but being away for the semester made me realize how lucky I am to be going to my dream school that I truly love so much. And seeing how suddenly Leanne's life was almost taken from her really made me realize how short life is and how important it is to live life to the fullest. I'm trying to take that philosophy with me here in Florence, and really, for the rest of my life. I feel like the luckiest girl on the planet to be healthy and able to have this incredible experience."

It's also deepened her sense of spirituality, her mother said. "It changed all of us. I'm not a religious, church-going person, but this really, really changed me ... to watch her strength was just amazing," Cynthia said. "This is a child who didn't even like to get a shot and to go through this to help someone else ... It's just really touching, and we couldn't be prouder of her." **L**





FRANCIS AS A WRESTLER. 1925. LEHIGH U.

WESTERN UNION

SYMBOLS	
DAY	Day Letter
NIGHT	Night Message
HL	High Letter
DEF	Deferred
CL	Cable Letter
WE	Week End Letter

Check on Symbols
 This is a full-rate Telegram or Cablegram unless the character is indicated by a symbol in the check or to the address.

The time shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.
 NEWBODFORD MASS 16 VIA RICHMOND VIR 17
 MORRISTOWN NJ 17

Received at
 NA65 62 COLLECT NL 5 EXTRA 84= NEWBEDFORD MASS 16 VIA RICHMOND VIR 17
 C E WILLIS, *coll. 844*
 CARE W H HOWELL=64 HILL ST MORRISTOWN NJ=

HARRY HAS JUST WIRED US OF THE TRAGIC DEATH OF YOUR SON HE LOST HIS LIFE IN A NOBLE SACRIFICE TO SAVE THE LIFE OF ANOTHER MRS WILBUR AND I EXTEND TO YOU ALL OUR DEEPEST SYMPATHY IN THE GREAT SADNESS WHICH HAS COME TO YOU HAR SERVICES ARE AT YOUR DISPOSAL IN EVERY POSSIBLE MANNER
 H P WILBUR.

Handwritten note:
 My wife
 Mrs. Kate
 3 24 1925

Gamma Beta Pi

Alpha Chapter - Pennsylvania

Be it known, that having assembled in and in testimony of the best faith of our hearts the following members of the Alpha Chapter of Gamma Beta Pi, Pennsylvania, at Lehigh University, Lehigh, Pennsylvania, on the 17th day of June, 1925, have elected and organized the following members of the party named:
 Francis Masceod Willis
 J. B. Myers
 J. B. Myers
 J. B. Myers



A HERO'S STORY, FINALLY TOLD

BY FRANK FITZPATRICK | ILLUSTRATIONS BY MICHELLE THOMPSON

Four days after graduating, Francis Willis '28 died while saving a 9-year-old boy from drowning. His heroism still reverberates today.

Time has tarnished the small bronze plaque in a shadowy corner of Packer Memorial Church. The crowds that occasionally fill the 131-year-old campus church for weddings or baccalaureate services typically pass it by without a glance. The names it bears and the tragedy it commemorates have been forgotten.

But that pentagonal tablet, with its simple dedication and brief biblical reference, is a portal to a vanished world and to a nearly unknown story so rich in virtue, history and fate—both unimaginably cruel and providential—that it seems drawn from the Greek mythology its doomed hero read so fervently as a child.

On the afternoon of June 16, 1928, Francis MacLeod Willis, a popular wrestler who'd graduated four days earlier as Lehigh's top civil-engineering student, drowned while saving the life of



**DESCRIBED IN THE
1928 EPITOME AS HAVING A
“GENIAL SMILE, READY WIT
AND SINCERITY OF PURPOSE,”
WILLIS WAS ESPECIALLY
ATTACHED TO HIS FRATERNITY.**

a 9-year-old boy. It was Willis' 21st birthday.

While its details, like the etched words on the plaque, get blurrier each year, the consequences of that valorous act have rippled through the decades, in part because, 88 years later, the youngster Willis rescued from the St. Lawrence River survives.

At 97, Richard MacSherry continues to repay the world for his good fortune. MacSherry, who attended Lehigh for one year until World War II drew him away, is a multimillionaire philanthropist. Inspired by Willis' sacrifice, the long-retired freight company owner has donated millions to hospitals, libraries and nature preserves near his homes in Florida and upstate New York.

“To me,” MacSherry said recently at his lakeside condominium in Mount Dora, Fla., “I really haven't paid back very much at all. ... Francis Willis deserves as much credit as we can give him.”

No tragedy is ever well-timed, but this one seemed particularly cruel, befalling Willis just as his promising life was taking form. He died not just on his 21st birthday and four days after he'd graduated from Lehigh, but six days after he'd become engaged and two weeks after he'd accepted a job with Philadelphia's powerful Reading Co.

The story of that fateful intersection of Willis and MacSherry is filled with historic names and places. There's an old estate on Philadelphia's Main Line, a grand Victorian mansion in the Thousand Islands region, and Lehigh's Jazz Age campus. Its cast of characters includes a descendant of Martha Washington, the son of a New Jersey Congressman, the brother of a future Naval commander and D-day hero, and the family of the Pennsylvania industrialist who founded Lehigh, Asa Packer.

Through all those decades when this story was forgotten—its details entombed in a black scrapbook that the tragic hero's father lovingly assembled—MacSherry seldom spoke about the incident. “He's mentioned it only occasionally,” said son Richard H. MacSherry. “It's not something he's proud of.”

Now recovering from two serious heart-valve surgeries, he has put aside his native Main Line reserve and told the story publicly.

His retelling has been enhanced by a recent discovery in Williamsburg, Va. There, in a desk drawer, the widow of Willis' nephew uncovered a trove of information that sheds light on the young Lehigh graduate's short but remarkable life.

“It's amazing,” said Anne Willis. “You wonder why someone hasn't done a book or movie about it.”

Inside a musty scrapbook that sat unopened for decades is a brief biography of the victim composed by his father. Charles Ethelbert Willis' loving narrative concludes with this cinematic-like moment from his son's funeral:

“Suddenly high in the western sky appeared one rift in the musky clouds,” he wrote. “Through the cleft, a solid beam of sunlight shot through, a great shaft of glory, and the end of the shaft rested for a moment on the flag-draped casket. At this very instant, a bird in a tree overhead sang blithely.”



The Willis family, which made a fortune in iron manufacturing and cherished its Sons of the American Revolution membership, had deep and distinguished roots in New Jersey.

Born in 1907 in Richmond, Va., where his father was a respected mining engineer and his mother a prominent socialite, Francis was the youngest of three sons.

“His father was very formal but a great sportsman,” said Anne Willis. “He loved to fly-fish. She [Willis’ mother] had had polio as a child and walked with a cane.”

As a youngster, Willis was as precocious as he was privileged. By age 5, he’d read several Charles Dickens’ novels.

“[At] 6,” his father wrote, “his knowledge of history and mythology was really startling.”

The founder of Richmond’s elite McGuire’s University School, where Willis graduated in 1924, called him “the most brilliant student I have ever had.”

He won a scholarship to Lehigh, where his father had gone and where an older brother, Charles, was also then enrolled as an engineering student. The third brother, John, a young Naval officer at the time, would later earn a French Legion of Honor medal for commanding an assault transport, the USS *Henrico*, on D-day.

Photos, documents and letters from Willis’ Lehigh days—all preserved in the scrapbook—portray a young gentleman of ambition and manners on a growing campus where both were prized attributes. One of his first letters home from Bethlehem was a pledge to his father:

“I promise ... the following,” Willis wrote, “that while at Lehigh University, I will write home at least once each week, that I will not play cards or other games for money, that I will not borrow any money, that I will not drink any intoxicating liquor, that I will not go on any note for anybody or endorse any note for anyone.”

How well he adhered to those principles can’t be determined, but Willis would seem to have had little time for mischief. A civil engineering major, his course load was rigorous. In addition, he was required to attend mandatory chapel services and take physical education. He would get deeply involved in

“**NO ONE IN FRANCIS’ CLASS WAS A COMPETITOR OF HIS IN ANY WAY AS HE STOOD SO HIGH ABOVE ANY OF US.**”

—FELLOW STUDENT

ROTC, student government and numerous social and academic organizations. And he also was a member of the wrestling team, a 135-pound freshman skilled enough to be named Lehigh’s wrestler of the year.

The posthumous scrapbook biography quotes an unnamed fellow student as telling Willis’ father, “No one in Francis’ class was a competitor of his in any way as he stood so high above any of us.”

Described in the 1928 *Epitome* as having a “genial smile, ready wit and sincerity of purpose,” Willis was especially attached to his fraternity. The now-defunct Sigma Phi, in whose house at 536 Delaware Avenue he resided for most of his four Lehigh years, introduced Willis to two well-connected friends: Ryan Fort was the son of New Jersey Congressman Franklin Fort and the grandson of a Garden State governor, and Harry P. Wilbur, who, like MacSherry, was a great-grandson of Asa Packer.

It would be those two who, 12 days after the drowning, discovered their friend’s bloated body in the St. Lawrence River.

Willis soon outgrew his weight class in wrestling and dropped the sport. He then became the student manager for both football and track, jobs whose many duties included more than a little coaching.

During at least two of his Lehigh summers, he worked as a surveyor. One of those projects involved the construction of a massive drainage system in Virginia’s Shockoe Valley.

By the end of his senior year, Willis had secured an engineer-



“IT WASN’T UNTIL YEARS LATER THAT I REALLY THOUGHT I OUGHT TO DO SOMETHING. SO I STARTED A SCHOLARSHIP PROGRAM AT LEHIGH.”

—RICHARD MACSHERRY

ing position with the Reading Co., a coal-mining and railroad concern that at the time was one of America’s most prosperous corporations. He was scheduled to start his \$130-a-month duties on July 16.

Two days before graduation ceremonies, on June 10, he got engaged to Henrietta Starr, the daughter of a Pottsville, Pa., mining engineer whose family’s roots could be traced to George Washington’s wife. On June 12, when 144 students received undergraduate degrees, Willis carried Lehigh’s flag at the head of the commencement procession.

Immediately afterward, he and Wilbur left for the Thousand Is-

lands, the archipelago near the New York-Canada border where Wilbur’s family vacationed and owned considerable real estate.

“I am very much pleased with the islands,” Willis wrote his mother after arriving. “It is all so beautiful [and] so quiet here that I know I shall sleep wonderfully.”

The family headquarters there was the Victorian mansion on Sport Island that Asa Packer, who died in 1879, had built. Col. Harry Packer Wilbur, the father of Willis’ fraternity friend, recently had purchased another island, Reveille, and built a new home there. On June 16, the younger Wilbur asked Willis to help him move furniture to his father’s house.

That Saturday, MacSherry recalled, was “a very hot day.” He and a female cousin assisted the older boys as they loaded furniture onto a large barge tied to the Wilburs’ 27-foot motorboat. The boat was the “Wela Ka Hao,” which in Hawaiian means “strike while the iron is hot.” An Army officer, the elder Wilbur had once been stationed on that Pacific island.

MacSherry, a younger cousin of Wilbur’s, had been born and lived for a time on Old Stone Farm, the Radnor Township estate of his grandparents. He never knew his father, and until he was 18, he and his mother spent summers at the Thousand Islands.

“It was beautiful,” he said. “I loved it there.”

MacSherry and Willis took seats on the barge. Near Rockport, Ontario, as they approached Reveille Island, the barge line was unhitched to ease the docking process.

“We weren’t going very fast, maybe 4 to 5 miles an hour,” MacSherry remembered. “I stuck an oar in the river to slow us down. Well, the water pressure was so strong it pulled me in. I went under the barge, sputtering and scared to death. If I was a swimmer, I wasn’t much of one.”

At that locale, according to various accounts, the St. Lawrence was between 100 and 300 feet deep and “nearly as cold as ice.” Frightened, the boy struggled to stay on the surface. As he did, one of the large tourist boats that regularly traversed the river there happened to pass.

“I can remember very clearly looking up to that boat,” he said. “Nobody attempted to do anything, but, of course, they didn’t know what was going on. I can still see their faces. All these years later I can still see them.”

Noticing the boy’s distress, a fully clothed Willis dove in. There’s no indication how strong a swimmer he was, but he managed to reach MacSherry, who by then was underwater. Maneuvering the flailing boy onto his shoulders, Willis moved toward the boat.

En route, they both sank below the water. Now Wilbur dove in. For a time, all three were submerged. Willis handed MacSherry to his friend, who rose and pulled the now-unconscious boy into the boat.

“The boy was revived after some time and with great difficulty,” Willis’ father wrote. “[Harry] again dove for Francis, but the latter had by this time reached a depth beyond human rescue.”

By nightfall, Willis’ parents had received the news via telegram. They sent their middle son, Charles, a new Bethlehem Steel engineer, to the site. Meanwhile, Fort got word in Buffalo, where he was attending a convention, and also headed to the Thousand Islands.

“[Francis] had a loyalty of whose equal I have never known,” Fort would later write his mother from there. “I had never stopped to think of how much he meant to me, until [Saturday].”

The search—by “a large fleet of motorboats and many willing hands”—continued for nearly two weeks. Finally, sometime around 6 a.m. on June 28, Fort and Wilbur discovered the body, floating down river, a half-mile below the rescue site.

The body was sent to New Jersey where, on June 30, following a well-attended service there, Willis was buried at Parsippany (N.J.) Presbyterian Church.

“We thought we were following the orbit of a splendid star,” his grieving father wrote. “Alas, we saw a brilliant meteor flash across the sky and then disappear.”

MacSherry, perhaps because he was 9 and had come so close to death himself, wasn’t informed of the gruesome discovery.

“I only found out much later,” he said.

He and his mother would move from St. Davids to Toronto, then to Washington, D.C. After graduating from Sidwell Friends School in the nation’s capital, he enrolled at Lehigh. He left in 1942, after his freshman year, to enlist in the Navy. A Seabee, he served in the Pacific until World War II’s end.

Drawn back to the Thousand Islands region, MacSherry established a successful trucking company, Seaway Motor Express, in Watertown, N.Y., and built a riverside home in nearby Alexandria Bay, close to where Willis had drowned saving him.

He seldom recounted the story of his rescue, and it wasn’t until he sold his business and retired in the 1980s that he started to reflect on Willis’ selflessness.

“Francis Willis was a hero,” MacSherry said. “I was a small boy at the time, and while I’d thought

“ WE THOUGHT WE WERE FOLLOWING THE ORBIT OF A SPLENDID STAR ... ALAS, WE SAW A BRILLIANT METEOR FLASH ACROSS THE SKY AND THEN DISAPPEAR.”

—FATHER OF FRANCIS WILLIS

about the incident a lot over the years, for whatever reason I never really did anything about it. I had no background on his family, and I didn’t try to investigate. I knew my grandparents had put a plaque in Lehigh’s chapel. But it wasn’t until years later that I really thought I ought to do something. So I started a scholarship program at Lehigh.”

The Francis MacLeod Willis ’28 Memorial Fund was established in 1981 and its earnings are used for unrestricted purposes, including scholarships.

Since then, MacSherry’s charitable zeal has intensified, timing that his daughter believes is no coincidence.

“He won’t talk about it,” said Mary MacSherry MacWade. “But I think that because of it, he really has become quite a philanthropist.”

Willis’ parents, of course, were devastated. His mother, said Anne Willis, “would never be quite the same.” His father seemed to deal with the tragedy by completing his son’s unfinished business and by compiling the scrapbook.

He informed relatives and his son’s friends of the death. He returned Francis’ ROTC uniform to the Army, told the Reading Co. not to expect him on July 16 and wrote Lehigh seeking memorabilia from his time there.

Among the scrapbook’s many artifacts is a photo of the just-completed bronze memorial plaque, which had been crafted at Philadelphia’s D’Ascenzo Studio. It was installed in Lehigh’s chapel during a dedication ceremony later that summer.

On it, a simple cross is surrounded by Willis’ name, a few facts and the start of a familiar biblical verse, “Greater love hath no man ...”

The book also contains a 1930 letter from the Carnegie Hero Fund notifying the family that it would be awarding a posthumous medal to Francis.

Starr, his fiancée, returned Willis’ letters to his mother, believing they might bring her comfort. In them, this man of science revealed himself to be a romantic. In one letter, he told Starr of his tearful farewell to fraternity brothers he would “be proud and happy to die for.”

Not long afterward, of course, Willis did give his life for another. In a letter to Starr just weeks before that event, he posed a question that his death—“that poignant agony,” as Harry P. Wilbur termed it—would leave unanswered forever:

“I sometimes wonder why,” Willis wrote, “why anything is, or should be, or was.”

The Francis Willis story was originally published in The Philadelphia Inquirer. All photos courtesy of The Philadelphia Inquirer unless otherwise cited. 



MORE ON ‘A HERO’S STORY, FINALLY TOLD’:

To watch a video on how Frank Fitzpatrick discovered the Francis Willis ’28 story, go to go.lehigh.edu/franciswillis.

COMMENCEMENT 2016: Next Stop!



AFTER LEHIGH, what comes next? For some graduating seniors, it's a dream job. For others, it's a trip abroad, graduate school or community projects. Still others are taking time for personal growth. To see more "Next Stop" photos, go to go.lehigh.edu/lehigh16nextstop.



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Kaitlyn Ruffing '17, a star swimmer for the Mountain Hawks, qualified for the 2016 Olympic Trials in June. She also competes for Lehigh's women's track team, plays in the Lehigh Orchestra, and maintains a Dean's List grade-point average as a double major in music and biology (see page 21).

Photo by Steve Boyle