Melinda Belisle ’08, across from her USDA office in Washington, D.C.
FEATURES

18 THE RIPPLE EFFECT

EDUCATION CHANGED THE LIFE OF SCIENTIST ANNE CHEUNG ‘99. NOW SHE’S DEDICATED TO MAKING SURE OTHER WOMEN HAVE THE SAME OPPORTUNITIES.

BY KATE SEYER | PHOTOGRAPHY KATHLEEN BOOHER

ROAD DIET

JOIN KAPLAN ’15 MAPS A NEW APPROACH TO TRANSPORTATION PLANNING IN HIS HOME STATE OF VERMONT, ONE BICYCLE AT A TIME.

BY AMY CRAWFORD | PHOTOGRAPHY RICK LEVINSON

30 HOMELAND FPE

SCOTT AKERS ’99, ’01 PUTS OUT FIRES BEFORE THEY START.

BY TIDFLANAGAN | PHOTOGRAPHY MATT HURMAN

DEPARTMENTS

02 LETTERS TO THE EDITOR

OUR READERS OFTEN WRITE IN TO TELL US HOW WE DID. WHY DON’T YOU DO THE SAME BY SENDING YOUR THOUGHTS TO LETTERS@WPI.EDU?

03 MESSAGE FROM PRESIDENT LESHN

05 BYTE 411

WPI’S NEW VICE PRESIDENT FOR TALENT DEVELOPMENT AND CHIEF DIVERSITY OFFICER MICHELLE JONES-JOHNSON SHARES HER GOALS FOR THIS NEW POSITION.

07 GLOBAL IMPACT

DISCOVER THE MANY FACTORS THAT MAKE WELLINGTON A PRIME LOCATION FOR A PROJECT CENTER.

08 W IT

UNIVERSITY NEWS FROM FISH HOOKERS TO DEAD HORSES, GARGLETS TO SEA TURTLES.

17 TURNING POINT

EMMA ZUDDERNICK ’91, ’97 (BMA) WAS DIAGNOSED WITH CANCER IN 2011, YET IT GAVE HER THE INSPIRATION TO TRANSFORM HER FUTURE.

42 WPI INSIDER

MEET PHD CANDIDATE LINDSAY LOZAE.

45 ACROSS EARLE BRIDGE

THE FOSSE ENGINEERINGGRADUATING ALUMNI CHAPTER, AND THE 10TH ANNIVERSARY OF THE GPS.

50 CLASS NOTES

IT’S NOT OUR MOST READ SECTION FOR NOTHING. FOLLOW CHECK OUT THE SUCCESS OF YOUR FELLOW ALUMNI... THEN SEND YOUR OWN NOTE TO CLASSNOTES@WPI.EDU.

54 COMPLETED CAREERS

IN MEMORY OF ALUMNI FACULTY, AND OTHER MEMBERS OF THE WPI COMMUNITY.

30 COVERS/STORY

GMO GATEKEEPER

U.S. SCIENCE AND TECHNOLOGY FELLOW MELINDA BELISLE ’08 DISCOVERS THE SCIENCE OF POLICYMAKING.

BY ANDREW HAUGHT | PHOTOGRAPHY MATT HURMAN

35 COVERS/STORY

W O R C E S T E R  T E C H N I C A L  I N S T I T U T E  V O L .  1 3 ,  N O .  8 | f a l l 2 0 1 6
SUMMER ACCOLADES

Just a note to say the summer 2016 edition is excellent. It is well balanced, interesting, creative, and tells the WPI story in a readable and attractive format. I’ve written directly to some of the people highlighted in several stories to compare notes and provide encouragement for their work.

Well done, keep up the great work.

—Henry Straeger ’54

WATER ACROSS AMERICA

Many of the WPI [journal] articles deal with bleeding-edge technology and the New England area. Some WPI graduates, like myself, have enjoyed very rewarding careers in a traditional industry in other parts of the United States. For example, my water utility career has taken our family on a wonderful adventure across America—from the pristine reservoirs of New England, to the big rivers of the Midwest, and on to the sacred rivers of the West.

I am very proud that I have been engaged in a career that provides safe drinking water, wastewater management, stormwater protection, water for agriculture, recycled wastewater, and groundwater replenishment.

Over the last 40 years, I have been involved with the planning, design, and construction of over $2.5 billion of water infrastructure. Some of us have also had the opportunity to manage and operate utility systems. I have been oncall, responding to hurricanes, floods, tornados, and earthquakes—always making sure the water services were uninterrupted.

Most people in our country wake up every day and turn on the faucet or flush the toilet and take it for granted. Compare this to the environmental issues at the 2016 Olympics in Rio de Janeiro and count your lucky stars!

In the future, when you publish a piece with photographs like this, it might be nice to say where they were taken and also say a bit about what’s in them. I learned later that the pictures had all been taken in Iceland, a country I have never visited but would now like to.

—Dr. K. Aravind, Professor of Physics, WPI

LETTERS TO THE EDITOR

PHOTO BEN BOCCHI

LEtters to the WPI Journal

Fall 2016

I enjoyed “A Widened Lens” that appeared in the Summer 2016 issue of the WPI Journal. It was actually the beautiful pictures that first caught my attention and led me to read the fascinating story behind them told in the article. Donal Boyd clearly has an exceptional talent, and one looks forward to seeing more of his work in the future.

I find it interesting that Professor Siran Apelian’s Boyd’s mentor at WPI, encouraged him to pursue his dreams and “(to) do so with a critical global mindset” instead of merely confining his passion to a hobby. Boyd’s work involves a fusion of both art and science, and is a good example of the sort of synthesis we try to nurture and promote at WPI.

I would make only one minor suggestion. In the future, when you publish a piece with photographs like this, it might be nice to say where they were taken and also say a bit about what’s in them. I learned later that the pictures had all been taken in Iceland, a country I have never visited but would now like to.

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MESSAGE FROM THE PRESIDENT

We need to ask ourselves, what does it mean to achieve the best of these competing criteria. WPI topped a list, titled “The Top Faculties” ranking reflects what our students think about their experience with our professors. Clearly, they appreciate the opportunity they have to learn from them, to benefit from their mentorship, to solve real-world problems working side-by-side with them on projects, and to be welcomed into our active research programs as valued contributors.

Their excitement of being part of this exciting and intellectually stimulating community is captured not only in the WSI) THE rankings, but in the annual Princeton Review guide, which perennially finds WPI students to be among the happiest in the nation (we’re No. 19 on that list of 318 colleges this year). And while I still think that most rankings miss the mark, this one, I have to admit, seems right on target.

Sincerely,

Laurie A. Leshin

President
Michelle Jones-Johnson is WPI’s new vice president for talent development and chief diversity officer. Her role in the Office of Human Resources oversees all HR activities. This innovative approach to talent development will have Jones-Johnson collaborating with many groups on campus from faculty and staff to students and organizations, and is a direct result of a recent climate survey crafted to help create WPI’s first strategic diversity plan. Recently the Journal asked Jones-Johnson a few quick questions to get a sense of her goals and aspirations for the coming year.

Throughout your 23-year career, what are the biggest changes you have witnessed within the field of HR?

The greatest changes have been in the changing role of HR and the focus on managing talent within an organization. HR professionals are not just interested in the transactional aspects of the work but are keenly aware of the opportunity to have a more impactful and strategic role on the broader organization both in terms of its people and in supporting the organization in meeting its business objectives.

What is the message reflected in the change in your position—from VP of HR to VP for talent development and chief diversity officer?

The role represents more than a title change. It reflects a shift in institutional priorities that align with our strategic initiatives that are enabled through a robust talent management approach grounded in diversity, not just in terms of representation, but inclusive of different perspectives and contributions.

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What do you see as your biggest challenge in creating a more supportive, inclusive campus here at WPI?

I view life through a lens of opportunity and possibility, each which represent a level of transformation and change that may feel daunting to some or unfamiliar to others. I am excited about working collaboratively with the WPI community to create a strategic roadmap to further build our culture and strengthen inclusion throughout all aspects of our community.

In an academic setting, what are your key initiatives to support employee and leadership recruitment and retention?

I plan to focus on attracting, developing, and retaining talent that distinguishes WPI in the competitive marketplace. WPI is competing for talent both inside and outside of the higher education marketplace. We have to create a strong employee value proposition and craft an enticing employer brand that speaks to the excellence we desire in talent and the diversity we value.

What’s your own strategy for maintaining a fun work/life balance?

I gave up striving for balance and focus more on choosing to find joy and gratitude in all that I do. I laugh a LOT! I spend time with people who fuel my need for connection, love, and inspiration. I prioritize date night with my husband. I gave up trying to be perfect. I close the door to messy rooms and instead opt to go out and have fun with my family.

DIVERSIFY WPI
Its history and culture are a rich fusion of influences; its people are proud, innovative, and environmentally fastidious; its picturesque harbor greets looming mountains that are home to an array of exotic and endangered plants and animals. Many factors make Wellington a unique and unrivaled location. That’s what ultimately convinced professor of organizational studies Michael Elmes that it would be a prime spot for one of WPI’s project centers. After visiting the country as a Fulbright Scholar in 2005, he championed the Wellington Project Center, and students have been visiting and working there for four years.

“It’s really quite a dynamic place for being such a small country,” says Elmes, who runs the center with assistant teaching professor Ingrid Shockey. “It’s a great place to visit, and it’s a great place to do interesting, challenging projects.”

In those four years, IQP teams have been involved with more than two dozen such initiatives—among them, researching endangered dolphins, investigating prospects for hydrogen fuel, studying the food rituals of native birthday parties, raising awareness of tsunami, and examining flood and climate change.

Mechanical engineering major Paige Mint ’17, who spent the winter of 2016 at the center, said of the experience, “I felt like I’d found another home.” Students are very often struck by what Elmes calls the starkly beautiful natural environment, plus the country’s high happiness index and quality of life. “They do have some kind of secret formula there,” he says.

The center works with diverse sponsors, from the Māori communities, to the Greater Wellington Regional Council, to the Museum of New Zealand Te Papa Tongarewa. Elmes says it’s a mutually beneficial relationship, and a way to show off WPI’s excellence. “We have so many repeat project sponsors because they’re so impressed with the quality of the work that our students do. I can’t tell you how many times people over there say, ‘Your students are just great.’”

Myatt was in a group that created a feasibility report for a hydroponic greenhouse that would tap excess electricity from a micro-hydro power system operated by Māori in the rural town of Horohoro. The experience had such a profound impact on her life and career path (she intends to go on to study renewable energy) that she’ll be going back in winter 2017 for her MQP. Her plan is to work with that Māori community again to help them design the greenhouse for which she and her IQP teammates created the feasibility study.

She recalls a Māori proverb: “What is the most important thing in the world? It is people, it is people, it is people.” Not, she emphasized, that people are more important than the natural world and its creatures, but that they are ultimately responsible for taking care of it.

“The Māori try to be very aware of how they’re impacting their environment. They’re efficient with their resources,” Myatt says of the Māori and of kiwis at large. “It’s a very refreshing viewpoint to experience.”

—Taryn Plumb

fall 2016 | follow us @WPI #WPIjournal 7
THE ROBOTS WERE RIGHT

A decade ago WPI was the first university to allow robot-obessed teenagers to engage with the passion as an academic discipline. In 2016 the university received the ABET* Innovation Award for developing and implementing the first ABET-accredited undergraduate robotics engineering (RBE) program in the United States. The program incorporates an innovative, project-based curriculum that integrates computer science, engineering, and entrepreneurship,* reads the citation. “It is producing large numbers of successful graduates, while serving as a model for robotics engineering programs at other institutions.”

WPI can do so well,” says program head Mike Gennert. “A diverse set of faculty worked together, identifying... True innovation is hard to define, but easy to recognize.” It further notes that recipients are chosen for breaking new ground and bringing a new dimension to education. The award recognizes vision and commitment that challenge the status-quo in technical education.

The program incorporates an innovative, project-based curriculum that integrates computer science, engineering, and entrepreneurship,* reads the citation. “It is producing large numbers of successful graduates, while serving as a model for robotics engineering programs at other institutions.”

WPI has grown every year for 10 years running, and the program has 11 labs; it still a waiting list. There are now more than 20 RBE courses offered, and the program has 11 labs; it has grown every year for 10 years running, and now boasts 340 undergraduate majors and 140 graduate students.

“Robotics engineering truly exemplifies what WPI can do so well,” says program head Mike Gennert. “A diverse set of faculty worked together, pursuing a vision to create an innovative, challenging, and highly respected degree program where nothing like it existed before. Our students have gone on to win awards, create companies, push the boundaries of knowledge, and take leading roles in the Robotics Revolution. And we’re just getting started!”

*Accreditation Board for Engineering and Technology

NEVER UNDERESTIMATE, NEVER GIVE UP

For years, Michael Vaudreuil ’16 juggled a full schedule of classes with a full-time, second-shift custodial job. He sometime picked up the occasional plastering gig on top of that. Most of the time he cleaned, but he had spent on coursework and his MG.

But WPI’s custodian-turned-engineer finally got his payoff. Vaudreuil, whose story went viral after he received his MQP, now employs in the Hot Section of the Pratt & Whitney’s Production Integrated Product Team.

Vaudreuil’s story – of enduring setback after professional setback, losing his home, his life’s savings, and, for a while, his hope – has resonated with millions. Media outlets around the world picked up the story about the custodian who graduated from the university he cleaned at night. One video of him at Commencement garnered more than 11 million views. After a segment about him aired on NBC Nightly News, four people from Pratt & Whitney reached out to him on the same day, independently of each other. He was soon hired, and now spends his days working on jet engine combustion chambers and turbine and exhaust systems.

“My job at WPI gave us the stability that we so desperately needed in our darkest hours. But it was the educational benefit that came with the job that was a life changer.”

Although he has a full plate right now, Vaudreuil has been contacted on Facebook and LinkedIn by others traveling the same path, and has given some thought to how he might help. “Recently, a person from Chile contacted me to suggest I write a book or start a blog to discuss how I accomplished my goal,” he says. His hope is that the media attention will help change the perception of older graduates and job candidates, and dispel the stereotype that their better days are behind them and they’re just riding it out to retirement. As is clear in Vaudreuil’s case, one should never assume, never underestimate—and never give up.

闿laps

91.7% The percentage of 2015 graduates who were employed, entering graduate school, serving in the military, or participating in volunteer service.
After standing for a century, lending both dignity and a quirky charm to the campus Quad, Alumni Gymnasium is now more. Before demolition of the brick walls began, the building’s most distinctive features were carefully removed for historic preservation.

Special attention was given to the 34 hand-carved limestone grotesques, which were carefully loosened from their posts by skilled masons, then lowered by a crane onto wooden pallets. University archivist Jessica Colati has been researching the meaning and origins of these beloved icons. She reports that they represent not only athletic pursuits, but also the Glee Club, the student newspaper, and the Journal. Several grotesques give a nod to sporting teams not officially sanctioned on campus at the time, such as bowling, fencing, and gymnastics. One, with a tennis racket, is believed to honor mathematics professor Levi Conant, who, as interim president from 1911 to 1913, oversaw fundraising for tennis courts on campus.

A time capsule housed in the building’s cornerstone was also preserved. The sealed copper box is presently being examined, says Colati, and the capsule’s contents will be revealed at a later date. (Only a partial list had been held by Gordon Library’s Archives.) “When we do open it, it will be really exciting to see if the items are intact,” she says, “and to see if there is something else included.”

When the Foisie Innovation Studio and Messenger Residence Hall rise on the site, a number of the grotesques will be incorporating in the new building. Several others will be displayed near the athletic fields as a motivator to WPI’s student athletes. Six grotesques—chosen by popular vote—are memorialized on a T-shirt, with a portion of proceeds funding student scholarships.

President Laurie Leshin works with a student group on WGBH’s American Graduate Champion.

President Laurie Leshin was selected by WGBH as a 2016 American Graduate Champion, as part of a PBS initiative to address the nation’s dropout crisis. The champions are role models in the community whose stories have the potential to inspire others to take action. On Sept. 17, American Graduate Day was broadcast live on WGBH and other public broadcasting stations to celebrate nationwide efforts being made by individuals and organizations to keep students on the path to graduation. Leshin and Martha Cyr, executive director of WPI’s STEM Education Center, were interviewed for the program. In a “Stories of Champions” segment promoting the program, they spoke of WPI’s commitment to K-12 STEM education efforts, noting that more than 1,000 teachers benefited from professional development at WPI this year. “A STEM education can offer a pathway to doing good in the world,” Leshin said, adding that project-based curriculums have been shown to lead to higher persistence and graduation rates.

The program is part of American Graduate: Let’s Make It Happen, which harnesses the power of public television to help communities understand the challenges and community-driven solutions associated with the dropout crisis. Along with ongoing reporting on the issues, public forums and community conversations are activating discussions between community leaders, educators, and others.

Learn more about the Dropout Rate at americangraduate.org.
Fish hackers? Wait... does that mean cyberstealing a fisherman’s home computer? An contraire, it’s about WPI students using mobile tech to help sustain fisheries. Last April during Earth Day weekend at WPI, Fishhackathon united coders, graphic designers, and project managers for an intensive two-day programming session to devise cutting-edge solutions to the most pressing industrial and environmental issues plaguing aquaculture and aquatic life. Hosted by the U.S. Department of State since 2014, Fishhackathon teams work on creating a mobile smartphone app to address one of nine problems fishery experts define as the most critical to making the global fishing industry sustainable.

In the largest Fishhackathon to date, teams participating simultaneously from more than 40 locations all over the world tackled issues related to fish identification and tracking, monitoring systems for lost fishing gear, fishing vessel data, and compliance with marine laws and regulations.

Of hundreds of submissions, SUNSHINE—short for “Scraping Unsearchable Sources to Hunt Environmental Exploitation” — an app created at WPI by Jonathan Leitschuh ’16, Maryann O’Connell ’17, and Utah-Lowell student Darrien Glaser, was recognized as a global finalist. It is designed to agglomerate a wide range of data on fishing vessels, to allow law enforcement officials to combat illegal and unregulated fishing and to prevent rampant overfishing from destroying marine ecosystems.

“Prior to the event, I was unaware of the complex issues we are facing globally in regards to fishing,” O’Connell says. “By participating in Fishhackathon, I was able to have fun developing software while contributing to a worthwhile cause.”

— Kerry O’Brien

ALUMINUM: A GRAVE-TO-GATE ANALYSIS

Though your car won’t fit into your curbside recycling bin, a significant number of its parts—from radiator and engine block to wheels and bumpers—are highly recyclable and endlessly reusable. WPI’s Center for Resource Recovery and Recycling (CR2), part of the Metal Processing Institute (MPI), recently confirmed that 91 percent of automotive aluminum gets recycled at the end of a vehicle’s life—keeping it in use and out of landfills.

A study commissioned by the Aluminum Association and conducted by the CR2 looked into three processes where aluminum is most often lost during automotive recycling: shredding, downstream separation, and scrap melting. Working with a representative sampling of dismantling yards, recyclers, and manufacturers, MPI founding director Diran Apelian and graduate student Sean Kelly tracked the full process to assess the percentage of aluminum captured and the opportunity for further improvement.

In the report “Automotive aluminum recycling at end of life: a grave-to-gate analysis,” Kelly writes, “Recycling is a critical step for the sustainability of a man-made metal like aluminum since it significantly saves both energy and scarce natural resources.” According to Apelian, the results confirm that aluminum—“which outweighs and, pound for pound, stronger than steel—helps reduce energy consumption, lower carbon emissions, and increase fuel economy.”

The CR2, a National Science Foundation Industry (University Cooperative Research, a multi-university, member-driven collaborative focused on helping industry create a sustainable future through advances in technologies that recover, recycle, and reuse materials throughout manufacturing processes. Partner organizations are WPI, Colorado School of Mines, and KU (Katholieke Universiteit) Louvain, along with the University of Tokyo, which joined in August 2016.

“Look for a follow-up story on CR2’s diverse research in the next issue!” (for the next annual research issue)

#CODEFORFISH

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A Kemp's ridley sea turtle living at the Key West Aquarium, Lola was struggling without her right front flipper. It had to be amputated after she was found in the wild with fishing line wrapped around it so tightly that it was cutting off circulation. Without her flipper she was barely able get around and would often injure herself swimming into the edges of our 3D printing to create the fin with silicone.

Wong and Varela traveled to Key West in September to fit Lola with her new flipper. Wong adapted it to suit immediately, swimming swiftly and smoothly. Greg Gerwin, curator at Key West Aquarium, says, "With her flipper missing, Lola would only swim in circles, which caused her a lot of discomfort during feeding. And it was sad to watch her not moving around much or just sitting at the bottom of the exhibit, because sea turtles normally can move so gracefully. Now, with her prosthetic, we have hope for Lola."

ELECTION 2016:
HACKS, AUDITS, AND OTHER WORRIES

Amid one of the strangest and most contentious presidential elections in recent memory, there is widespread concern about electronic voting machines being “rigged,” malfunctioning, or falling under cyberattack by domestic or foreign bad guys. How can the public trust that their ballots are counted correctly—or at all?

That question is always on the mind of Suzanne Mello-Stark, a forensic computer scientist at WPI who studies voting technology and has served as technical advisor to the election boards in Rhode Island and Connecticut. Mello-Stark, associate teaching professor of computer science, says her interest in the fin team, with prototypes in hand, was piqued during the 2000 presidential election, when the hotly contested result of the tally was not moving around much or just sitting at the bottom of the exhibit, because sea turtles normally can move so gracefully. Now, with her prosthetic, we have hope for Lola."

Unfortunately, it’s common for sea turtles to lose limbs if they’re entangled in fishing line wrapped around it so tightly that it was cutting off circulation. Without her flipper she was barely able get around and would often injure herself swimming into the edges of our 3D printing to create the fin with silicone.

Wong and Varela traveled to Key West in September to fit Lola with her new flipper. Wong adapted it to suit immediately, swimming swiftly and smoothly. Greg Gerwin, curator at Key West Aquarium, says, "With her flipper missing, Lola would only swim in circles, which caused her a lot of discomfort during feeding. And it was sad to watch her not moving around much or just sitting at the bottom of the exhibit, because sea turtles normally can move so gracefully. Now, with her prosthetic, we have hope for Lola."

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What do engineering and aeronautics have to do with helping endangered sea turtles? It’s a classic tale of WPI students on a mission to find a topic for their capstone project that would have a lasting impact.

It all began when 2016 graduates Iok Wong, a mechanical engineering major and aerospace engineering minor; Samanta Varela, a biomedical engineering major; and Vivian Liang, a double major in biomedical engineering and mechanical engineering, found Lola.

Varela, a biomedical engineering major; and aerospace engineering minor; Samantha Wong, a mechanical engineering major and aerospace engineering minor; and Vivian Liang, a double major in biomedical engineering and mechanical engineering, found Lola. The students’ respective majors, while seemingly unrelated to sea turtle anatomy, provided an optimal combination of skills for the project. Wong perfected the aerodynamics of the fin; Varela designed a way to attach the prosthetic; and Liang ensured that Lola could generate enough force to operate the prosthetic in water. They used low-cost materials and 3D printing to create the fin with silicone.

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36%

That was her one-year survival prognosis when DARA ZUCKERNICK ’91, ’97 (MBA) was diagnosed with stage 3 breast cancer in 2011, and it gave her inspiration to transform her future.

The child of an artist, Zuckernick had a great eye for creativity early on. Yet her mother urged her to pursue her analytical—and potentially more financially stable—strengths.

The summer before her high school senior year, she attended the WPI Frontiers program, which led her to apply to WPI. “Before you knew it, I was becoming a scientist,” she admits.

Upon earning her BS in biotechnology, it was apparent to Zuckernick that the best way to get ahead in her field was with a PhD, but the routine lab work fizzled her passion rather than ignite it.

“A friend of mine had completed her MBA in the WPI program and I thought that might provide an avenue for me to stay in a technical field—but on the business side rather than the technical side. My employer offered a tuition assistance program, so the decision to pursue the MBA was pretty easy.”

Fast forward to her role as North American sales manager at Molecular Devices: It was during this time Zuckernick was diagnosed with cancer, and suddenly she felt her priorities shift.

She promised to get back to her creative roots and open an art gallery—and in the summer of 2013, she did just that with Blank Canvas Gallery. For two years she balanced her corporate life and the gallery 24/7, but when she realized her bigger joy came from the most mundane work at the gallery—even just refurbishing the gallery walls—she was finally convinced to leave the corporate life behind.

She now gets more of a thrill selling small works of art than she ever received closing big capital equipment deals. “The personal connection with both the art and the artist can be very intense, and so many of my artists are now my very good friends,” she explains.

Despite the change in direction, Zuckernick still feels her WPI education guiding her.

“A lot of that questioning—analytical work that you learn as a scientist—I now employ toward evaluating art. And just like science, a lot of art is built on the work that came before, so the volume of reading and researching and learning is just like you would do in science.” And her MBA background has helped her navigate her new role of entrepreneur in establishing a gallery and helping the artist community.

Flash to today: Zuckernick is set to launch an art concierge service in the Philadelphia area. She is also on the board of a nonprofit group called The Art Trust, with a gallery in downtown West Chester and a list of shows set for 2017. With her cancer now in remission, her schedule is just as busy as it was in her corporate role, but with a soul fulfillment missing early in her career. Filling her iCal with pursuits she’s passionate about, from Olympic lifting to paddle-boarding, Zuckernick admits she’s never been as happy as she is now.
In 2005 Anne (Zichitelli) Cheung was losing sleep. Anne Rapin, a close friend, had just returned from Cameroon, where she’d taught science to upper-level students as a Peace Corps volunteer. Rapin had brought home some unsettling stories from the West African country. For Cheung, one stuck out.

“She’d said something in her classroom one day about how girls can do anything that boys can do,” Cheung recalls. “And one of the girls in her class actually said, ‘No, you’re wrong. Madam, we can’t.’”

Rapin explained that in Cameroon girls are far less likely to get an education than boys because they’re often thought to have less potential. Also, they’re frequently married off at a young age and, therefore, they stop going to school. Teachers sometimes approach girls for sex in exchange for good grades, and girls are kicked out of school if they become pregnant.

Cheung couldn’t stop thinking about it. As a senior associate scientist with the biopharmaceutical company Biogen, she was acutely aware of how education and opportunity had shaped her life. Aware of how education and benefit of a college degree, she says her own parents were obsessed with her education. Her father, a high school chemistry teacher, would often bring her on nature walks and teach her about the wonders of science; a job fair in high school chemistry teacher, would often bring 5-year-old Anne to the lab to look through microscopes. Cheung says she was the best role model a girl could ask for. Her father, a grammar school teacher, would take her on nature walks and science museum outings. Because their parents hadn’t had the benefit of a college degree, she says her own parents were especially passionate about the value of education. With education, they taught her, life could be better; doors could open. “I think that’s been a theme throughout all the extra work I’ve done.”

From the moment she first peered through these microscopes, Cheung was drawn to science; a job fair in high school solidified her path. She talked with a biochemist from Roswell Park Cancer Institute who told her about a cancer patient who was given a poor prognosis. When the biochemist tested the tumor, he found that the cancer wasn’t life threatening, after all.

“She excitedly described how awesome it was to be able to give such wonderful news to that patient, and how it helped in other ways,” says Cheung. “That conversation had a huge impact on me.” She’d seen family members battle disease like Alzheimer’s and cancer, and she felt helpless watching them suffer. Now, she’d discovered a way that science could make a difference. She went on to become a research assistant in the lab of José Argüello, where she studied the form and function relationship between enzymes and cells. That lab was the setting for two life-changing moments. It’s where she first became interested in the structure/function relationship of proteins and intrigued by the possibility of using that knowledge to target proteins associated with disease. It’s also where she met an undergraduate named Man Ching Cheung, who she’d go on to marry.

After completing her BS in molecular biology at SUNY Fredonia, Cheung came to WPI to earn an MS in biochemistry. A teaching assistantship covered her tuition and provided a stipend for living expenses. “It was such a gift to have that opportunity,” she says. “I went on to become a research assistant in the lab of José Argüello, where she studied the form and function relationship between enzymes and cells. That lab was the setting for two life-changing moments. It’s where she first became interested in the structure/function relationship of proteins and intrigued by the possibility of using that knowledge to target proteins associated with disease. It’s also where she met an undergraduate named Man Ching Cheung, who she’d go on to marry. She says she picked up a lot of new technical skills in the Argüello lab, through the most important takeaway was learning to think like a scientist: being inquisitive, studying background information to make informed choices, and then solving problems as they arise. “Being able to adapt and not be afraid of change would be the most important thing I learned in his lab,” she says.

After they graduated, Anne and Man Ching moved to Boston, where she accepted a job with Biogen. Working in the protein biochemistry group, she took on the challenge of producing and characterizing several complex recombinant proteins. Paul Weinreb, director of Biologics Drug Discovery, says Cheung’s education made her a great fit. “Anne’s training and education at WPI spanned a wide range of scientific areas—from molecular biology to cell biology to biochemistry—and her work in Professor Argüello’s lab gave her a skill set that she could apply to nearly any biochemical system,” he says. “Most important, she learned how to design and troubleshoot experiments; she developed the types of problem-solving skills that are fundamental to being a successful scientist.”

Sixteen years later, she’s still in Biogen’s biochemistry department, as part of a team developing an antibody that targets one of the misfolded proteins associated with Alzheimer’s. If it’s successful, it could help slow the progression of the disease. She’s also worked on projects aimed at slowing the progression of certain types of breast cancer, and is developing a diagnostic test for a latent virus that can cause severe debilitation or death in patients with compromised immune systems.

PHILANTHROPY

Cheung takes a measured approach to her projects, knowing that tooing can take years, and that a high percentage of research won’t ultimately lead to a commercial product since so many things can go wrong along the way. At Biogen, she’s found that the success rate for drugs entering Phase I clinical trials is about 10 percent.

That, in part, drove her to find new areas where she could make a difference—as a volunteer. “I got into science because I wanted to help people—and it seemed so interesting, and I had that push from my mom,” she says. But once she began working in the field, she says, “it seemed as hands-on as I wanted, so I found new avenues.”

Cheung is a frequent presence at the Big Sister Community Lab, where she teaches school kids about science and mentors them on their science fair projects. In her early days at Biogen, she got involved with the Big Sister Association of Cameroon. She volunteered with the Big Sister Association of
Greater Boston, and met Lois Contreras. Cheung became the 9-year-old’s mentor, taking her bowling and to the theater—pursuits the young girl had never experienced. Through Contreras’s years in grammar school and then high school and college, and through Cheung’s marriage and the birth of her two sons, their friendship grew. Now 25, Contreras says Cheung inspired her to take school more seriously, and helped her see that education could open doors. “She makes you want to be a good person in this world, to do something meaningful,” says Contreras, who works as an educator at Roca, a Boston-area nonprofit, where she teaches young mothers who didn’t complete high school. She tells them that education can open doors for them, too. “I can talk about Anne forever,” says Contreras. “She’s one of the most awesome people I’ve ever met in my life.”

Biogen’s Weinreb is also effusive about Cheung. “Whether it is her scientific contributions to discovering new treatments for neurodegenerative disease, such as multiple sclerosis or Alzheimer’s, her volunteer work with the Community Lab, or, perhaps most notably, her efforts to establish and run a charitable foundation to help girls and women in Cameroon, Anne has always demonstrated that she truly cares. She is truly passionate about empowering women in science, and these causes all are consistent with that goal.”

In fact, Fortune magazine in 2013 named Cheung one of the “Heroes of the 500,” highlighting her work with A2Empowerment. The annual list spotlights extraordinary people working for Fortune 500 companies.

**EMPOWERMENT**

In 2011, a few years after starting A2Empowerment, Cheung flew to Cameroon. It was the first time she’d been to Africa, or to a developing country, and it made her appreciate, immensely, how easy her life had been and the educational opportunities she’s had. In a small rural village she met 14 scholarship recipients who threw a party to thank her. A father of one girl told Cheung how grateful he was that the scholarship made it possible for his daughter to go back to school. “He said he didn’t cry for her because she can buy her own bread and buy her own soap,” Cheung recalls, her voice growing soft. “And I just thought about how hard it must be to not be able to send your kid to school if you wanted to.”

While the trip inspired her, she’s not sure she’ll make a habit of it. “What I paid for the whole trip, it could have been a lot of scholarships,” she says.

Lately, Cheung has been pondering how to do even more. She thinks the scholarship program in Cameroon is a good start, but she’d love to find a way to help the girls gain skills and jobs so they can support themselves. She’s considering completing her MBA through WPI to help guide her. Because she’s seen the doors education can open, she’s determined to keep knocking. “I decided I’m just going to keep working toward helping these girls, no matter what. There’s more I can always do, until I’m done. I feel so passionate about how important education is and the ripple effect it can have. And I don’t want to ever stop.”

A2Empowerment at a Glance

- Founded in 2008, this nonprofit company is dedicated to empowering women through education.
- So far, it has awarded more than 980 educational scholarships to young women in Cameroon (234 recipients in seven of the country’s 10 regions, were selected in 2014).
- Recipients are expected to meet monthly with their mentors and other scholarship recipients in their areas to report on their academic progress and to discuss topics like health and wellness. They must also serve as role models by volunteering in their communities.
- About $75 will cover tuition, fees, and books for a year of school.
- All company overhead costs have been covered by the company co-founders, so the full amount of all donations is put toward scholarships.
- Since the project is set up as a Peace Corps Partnership Project, all funding is strictly monitored by the Peace Corps and A2Empowerment.
- Plans for 2017 include sustaining support for current recipients who qualify, and expanding the program to additional students.

For more info, visit a2empowerment.org
road diet

Jon Kaplan ’85
MAPS A NEW APPROACH TO TRANSPORTATION PLANNING
BY AMY CRAWFORD | PHOTOGRAPHY RICK LEVINSON

ROAD DIET
A two-lane highway in most sections, U.S. 302 follows a series of rivers—the Jail Branch, the Winooski, and the Presumpscot—from Vermont’s capital of Montpelier, 171 miles east to Portland, Maine. This area of northern New England, known for forested peaks, pristine lakes, and quaint villages, also has its share of less-than-bucolic spots. One is the stretch of 302 from the town of Berlin to the historic city of Barre.

“It’s a typical commercial strip with lots of chain stores and shopping plazas,” says Jon Kaplan, who manages bicycle and pedestrian programs at VTrans (Vermont Agency of Transportation). The four-lane boulevard, lined with drive-through restaurants, gas stations, and auto supply stores—each fronted by a generously sized parking lot—has long served as a reminder that the United States developed its highways for the automobile, not for people who walk or bike. But when Berlin announced a paving project last summer, Kaplan and his VTrans colleagues saw an opportunity to make the road work for a wider swath of the population: They would put Route 302 on a diet.

Transportation planners are the first to admit it’s an amusing description, but the “road diet,” actually one of the most important elements of a new approach to transportation planning—a philosophy that prioritizes safety for all, putting pedestrians and bicycles on par with automobiles, not for people who walk or bike. When Berlin announced a paving project last summer, Kaplan and his VTrans colleagues saw an opportunity to make the road work for a wider swath of the population: They would put Route 302 on a diet.

Transportation planners are the first to admit it’s an amusing description, but the “road diet” is actually one of the most important elements of a new approach to transportation planning—a philosophy that prioritizes safety for all, putting pedestrians and bicycles on equal footing (so to speak) with cars and trucks. While its goal is not to reduce the volume of traffic, a road diet usually cuts the number of travel lanes, creating space for bicycles, pedestrians, and buses. Car traffic may slow down a bit, but it flows more smoothly. According to the Federal Highway Administration, the approach—which is recommended for roads with a traffic volume of fewer than 20,000 cars per day—has the potential to cut automobile accidents nearly in half, something Vermont authorities welcomed on a stretch that had become notorious for rear-end and sideswipe crashes.

“This is about trying to get the road to function more safely for everybody,” Kaplan asserts, in effect summing up the mission of his entire department, and much of his career so far.

MEANDERING PATH

Appropriately enough for someone whose work focuses on more leisurely modes of transportation, Kaplan’s life has taken a meandering course since his days as a civil engineering major at WPI.

“I remember taking light steel design, reinforced concrete design—a lot of specialized classes,” Kaplan says, adding with a laugh, “but I actually never ended up doing any structural engineering once I graduated. Still, WPI prepared me in terms of all the basics of engineering, and learning how to work hard to get things done. Like a lot of life, it’s just the luck of the draw in terms of where I ended up.”

After graduation, Kaplan accepted an offer at a Boston consulting firm. After that came a job on Cape Cod reviewing development plans as an assistant engineer for the Town of Yarmouth. “There was a lot of growth on the Cape at that point,” Kaplan says, recalling how the town became less quiet and rural as the development started to fill in at the end of the 20th century, on cars. But that was beginning to change, and Vermont, one of the more progressive states when it comes to alternative modes of transportation, would lead the way.

Since 1973 Vermont has had a law on the books that requires the state transportation budget to include funding for bicycling and walking. Kaplan became familiar with this law as he worked on roadways—it meant many of his projects required bike lanes and sidewalks. Then, in 1993, he was promoted to a position in the state’s bicycle and pedestrian program, working with state coordinator Michael Ronkin, one of the biggest names in the field.

“He is very well known nationally,” Kaplan says. “He was one of the innovators around bike and pedestrian planning and design in the U.S. I was really lucky to work for him. He took me to a conference where there were 500 planners and engineers from around North America who were working on bike and pedestrian stuff. I was like, ‘Wow, this is a real thing—it’s not just this little niche.’ It really headed me off in that direction, and that’s what I’ve been doing ever since.”

MULTIMODAL

Ronkin, Kaplan, and their colleagues at the DOT were among the first state officials to place bicycles and pedestrians on par with automobile traffic. It was a philosophy that continued to inform Kaplan’s work after he and Anne, decided to move to Oregon. “We just wanted to live somewhere different,” Kaplan says. “We had been in Vermont for a while, so we did a big trip across country. At first we thought we’d like Virginia or, possibly, Colorado, but nothing really stuck us as the place to be. We did like Oregon, though.”

The couple settled in Salem, the state’s capital, and Kaplan found work at a restaurant. But he began to crave the more stable working hours of an office job. “I thought, ‘Well, I have this engineering degree…’” he says. He wound up at the Oregon Department of Transportation, at first on a survey crew, and then as a roadway designer—a job that focused, like most transportation planning still did at the tail end of the 20th century, on cars. But that was beginning to change, and Oregon, one of the more progressive states when it comes to alternative modes of transportation, would lead the way.

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“From the Cape, Kaplan headed north, spending five years as a cook in New Hampshire and Vermont before he and his soon-to-be-wife, Anne, decided to move to Oregon. “We just wanted to live somewhere different,” Kaplan says. “We had been in Vermont for a while, so we did a big trip across country. At first we thought we’d like Virginia or, possibly, Colorado, but nothing really stuck us as the place to be. We did like Oregon, though.”

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MULTIMODAL

Ronkin, Kaplan, and their colleagues at the DOT were among the first state officials to place bicycles and pedestrians on par with automobile traffic. It was a philosophy that continued to inform Kaplan’s work after he and Anne
moved back to Vermont in 1995 to be closer to their families, and today it has filtered through much of the field. The current buzzword is “multimodal,” and transportation planners now hope to make roads work for everyone. Despite this shift, Kaplan laments that many Americans are still biased against bikes. “We got a lot of negative comments on the public survey we did before the road diet,” he says. “I can’t really explain this other than to say that we in the U.S. are still, for now, a car culture. Many people don’t take biking seriously as a mode of transportation, even though it is very efficient, especially for short trips in areas with traffic congestion.” Still, perspectives can change. In this, Kaplan draws inspiration from a Federal Highway Administration-sponsored tour of Europe he took several years ago, which opened his eyes to the possibility that one day Americans might embrace biking and walking as valid ways to get around. “It was all about visiting countries that had good records of bike and pedestrian safety and good infrastructure for biking and walking,” Kaplan says. “Copenhagen, in particular, was just incredible. There were as many people biking as there were driving in the center city—just streams of bicyclists: women wearing high heels, men in suits, little kids on the backs of bikes. Postal service people delivering mail. It’s just how people get around. I think once you’re exposed to that, you see what’s possible.” Statistically, a lack of infrastructure for bikes and pedestrians may be partly to blame, and Kaplan is excited about several efforts he and his team are making to change that. In village centers, they have worked with towns to install Rectangular Rapid Flash Beacons, which pedestrians can activate at a crosswalk to emphasize that drivers are required to yield. Kaplan’s office also administers a grant program to help towns improve bike and pedestrian safety and access, including laying sidewalks, installing intersection signals, and widening shoulders on rural roads. While Vermont has a population smaller than the city of Boston, it can be a challenge to coordinate efforts among the state’s 255 municipalities, each with different needs. But Kaplan has found that, in the eight years since he took over bike and pedestrian projects at the state level, the values he has worked for since his days in Oregon have become more widely accepted. “I no longer have to advocate as strongly as I did in the past,” he says. “People see me as a resource on incorporating biking and walking into projects and we work collaboratively most of the time.”

**BREAKING THE CYCLE**

Kaplan’s life may have taken an indirect course, but looking back, his destination—working at the state level, the values he has worked for at the state level, the values he has worked for since his days in Oregon have become more widely accepted. “I no longer have to advocate as strongly as I did in the past,” he says. “People see me as a resource on incorporating biking and walking into projects and we work collaboratively most of the time.”

**It’s an exciting thing,” Kaplan says. “There is a lot to do, but we have definitely made a lot of progress, especially in a place that’s not a big urban center. I’ve heard from colleagues around the country, and a lot of them face some similar challenges—sprawl, car culture. I think what we’re doing could serve as a model for how we can make our streets work for everybody.”

“Not uncommon for all five of us to bike downtown for ice cream cones during the summer,” he says. “If I have to go out to the hardware store or to get groceries, I use my bike. I never lock it, partly because we’re in Vermont, but also because it’s a real beater—it doesn’t look like much, but it’s a great bike, totally dependable.”

It’s a lifestyle Kaplan hopes he can help more Vermonters adopt. He’s fond of citing surveys that show as many as 60 percent of Americans would like to bicycle, but are prevented from doing so because of safety concerns. It was with these people in mind that Kaplan and his team planned the Route 302 road diet, the most high-profile bike and pedestrian project Vermont has launched to date. After extensive studies, the diet began last June. First, VTrans reduced the number of travel lanes from two to one in each direction, adding a turn lane in the middle for drivers turning left. That discouraged speeding and freed up room for a bike lane on either side, as well as space for a buffer zone between cyclists and automobile traffic. [The buffer was Kaplan’s concept, and one that has been shown to make cycling even safer and more comfortable.]

Kaplan worked with consultants and with the town of Berlin to coordinate and refine the design; he developed an evaluation plan and ran with the media to get the word out and answer local residents’ questions. The diet seems to have paid off—shortly after the project was completed in August, a video traffic count showed the number of cyclists expanded nearly eight-fold, even as the travel time by car remained roughly the same.

“It’s an exciting thing,” Kaplan says. “There is still a lot to do, but we have definitely made a lot of progress, especially in a place that’s not a big urban center. I’ve heard from colleagues around the country, and a lot of them face some similar challenges—sprawl, car culture. I think what we’re doing could serve as a model for how we can make our streets work for everybody.”
HOMELAND

FPE

SCOTT AYERS ’99, ’01 PUTS OUT FIRES BEFORE THEY START

BY TED FLANAGAN | PHOTOGRAPHY MATT FURMAN
Early in his career in the private sector, Scott Ayers sought better ways to safeguard the Navy’s newest supersonic carrier from fire. Later, he earned four patents for his innovative work miniaturizing fire suppression components during the design phase of what would become the world’s largest jumbo jet, shrinking crucial sensors into small packages. One project, in particular, designing a system to extinguish engine fires on a new model jumbo jet—one of the largest and most complex commercial aircraft ever built—stretched him in new ways.

That stretching resulted in four patents, including one for an analyzer that ensures a sufficient concentration of clean agent is injected into an engine in the event of a fire. Although his design didn’t make it into the finished airplane, it did pass muster with the Federal Aviation Administration.

A NEW BALANCE

When Ayers left the aerospace industry for his current job with the CPSC, he initially saw his move to the public sector mainly as a way to achieve some work-life balance. Coaching his daughter’s soccer team, serving as president of the local PTO—these were desirable perks of a more collaborative and cooperative workplace, he has a chance to lower the odds that an accident will scar another child. “You’re making a difference, and you see that happening right in front of you.”

With fire protection engineers, it’s sometimes hard to see the worth in work whose ultimate and best expression is in what doesn’t happen. They’re not looking to assign blame; they’re not looking to sue, they just want to find solutions so the next kid doesn’t get burned.”

Ayers discovered that he loved the challenge of engineering large, complex systems into small packages. One project, in particular, designing a system to extinguish engine fires on a new model jumbo jet—one of the largest and most complex commercial aircraft ever built—stretched him in new ways. That stretching resulted in four patents, including one for an analyzer that ensures a sufficient concentration of clean agent is injected into an engine in the event of a fire. Although his design didn’t make it into the finished airplane, it did pass muster with the Federal Aviation Administration.

He is careful to stress that when he talks to people about his work, he never intended to make the NRL a permanent home. He then spent 18 months performing fire suppression R&D on buildings for a company in Wisconsin before landing at Kiddie Aerospace & Defense in North Carolina. Battling the limitations of weight and space demanded of engineers working on aircraft fire suppression systems presented the greatest design challenge he’s yet faced. “Weight and space are always at a premium,” he says.

While Ayers was interested in WPI’s direction, this was already leaning in WPI’s direction, so this was a solid match. As a high school senior in his hometown of Plymouth, Mass., he received a flyer describing WPI’s fire protection engineering program. “I was already leaning in WPI’s direction, so this was a solid match.”

After completing his master’s in FPE, he accepted a position researching fire suppression systems with the U.S. Naval Research Laboratory (NRL).

AGENT OF CHANGE

As would prove true at several points in his career, Ayers began his new job at a time of significant change in the industry. Designers were looking for a new “clean agent” for fire suppression systems (the National Fire Protection Agency describes clean agents as electrically non-conducting gases that extinguish fires by interrupting the process of combustion while leaving no residue). Believing long the tried-and-true clean agent, was a CIG (chlorofluorocarbon) whose production was halted in 1994 due to environmental concerns. Eventually, alternative agents were developed, and Ayers worked with a team for three years helping design systems for massive ship projects like the supercarrier USS Ronald Reagan. It was fascinating work, he says, but, as a contract worker, he never intended to make the NRL a permanent home. He is careful to stress that when he talks to people about his work, he never intended to make the NRL a permanent home. He then spent 18 months performing fire suppression R&D on buildings for a company in Wisconsin before landing at Kiddie Aerospace & Defense in North Carolina. Battling the limitations of weight and space demanded of engineers working on aircraft fire suppression systems presented the greatest design challenge he’s yet faced. “Weight and space are always at a premium,” he says.

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GMO gatekeeper
Melinda Belisle '08

BY ANDREW FAUGHT | PHOTOGRAPHY MATT FURMAN
Several nights each week, Melinda Belisle takes the train to a 1.5-acre lot bordering the Fort Totten Metro Station in Washington, D.C. There, the Mamie D. Lee Community garden teems with a cornucopia of squash, melons, leafy greens, and herbs. She tends a 429-square-foot patch of earth, tending what she needs and donating some of the bounty – most recently several batches of homemade muffins to a local food bank. On a hot and humid night in August, Belisle casts a gimlet eye at her five beefsteak and grape tomato plants. “They’re really struggling,” she laments. “They have early blight.” Belisle’s tomato tribulations serve as a pointed reminder of her day job. As a science and technology fellow with the U.S. Department of Agriculture, she works in the office that regulates genetically modified organisms, or GMOs, which include engineered plants made to flourish in parts of the world beset by drought, climate change, and pest infestations. “I’m a very sensitive person, in general,” she adds. “I can pick up on social cues and things in my environment very easily. Living in big cities can be overstimulating. There’s always music and different smells; there are always miscellaneous people walking around. It can be overwhelming. But when I’m in nature, those things kind of fade away. There are stimuli, of course, but it’s just not as intense. I really appreciate that.”

She’s driven to make a difference in some of the underdeveloped countries, and it’s why she’s enrolled at WPI to be closer to family. She knows well the deprivations at various points has also called Belize and Panama home. She’s lived in Georgetown, Guyana, the lone metropolis in a South American nation where 80 percent of the land is covered by unspoiled rain forest. She went to college in Florida, where 80 percent of the land is covered by unspoiled rain forest. She said she made a point of being outside, often perching on the limbs of a five-finger apple (or star fruit) tree with her beloved cat, Rosemary. “In the Caribbean, it’s so warm and your parents would kick you out of the house to go play,” she says. “I spent a lot of time just being in nature. I found it very comforting, and I find it comforting now.”

Belisle, an older sister, and her father (a Methodist minister) moved to Oxford, Mass., when she was young. “I remember that a friend had to show me how to use a vending machine,” she says. “It was a very welcoming and supportive environment. I found it very comforting then, and I find it comforting now.”

“I’m a very sensitive person, in general,” she adds. “I can pick up on social cues and things in my environment very easily. Living in big cities can be overstimulating. There’s always music and different smells; there are always miscellaneous people walking around. It can be overwhelming. But when I’m in nature, those things kind of fade away. There are stimuli, of course, but it’s just not as intense. I really appreciate that.”

Belisle was where I flourished.”

She praises the university’s “good climate of community,” its project-based learning, and the ready access students have to professors. Just before the start of her first year, Belisle took part in WPI’s Excellence in Mathematics and Science Engineering Program (EMSEP). Now known as Connections, the program is designed to help acclimate minority students to college life. “It was a very welcoming and supportive group,” she says. “It helped me a lot.” As a biology major, she wanted little time making her presence felt on campus. She was a member of the Student Government Association, performed with the WPI Dance Team, and helped launch the campus chapter of Alpha Xi Delta sorority, which she served as president. “It took over my life,” she says.

At the University of Hawaii, Belisle, Barbagallo ’17 met Belisle when the pair worked at the Campus Center information desk. They helped gather the student body, along with a third classmate, Linda Pappagari ’08. The trio soon became known as “The Three Lindas.”

“We’d go to networking events and, quite often, people thought we were messing with them,” says Barbagallo, now a biology lecturer and researcher at Brandeis University. The two, who remain close friends, did research assignments together and bonded over “weeks of failed experiments and dealing with the expectations of our professors.”

Belisle, according to Barbagallo, has one particularly enviable attribute: “You can put her in a room with anybody,” she explains, “and she

When you think of science, it’s hard, objective facts. In graduate school, I learned not to put my own desires on top of that. There’s no moral duty in what your data are telling you. But being here at the USDA (located across the street from the Washington Monument, seen here) was where I flourished.”

With graduation looming, Belisle had to settle on a college. Her mind was made up: she’d enroll at the University of Hawaii, lured by the islands’ “super exciting” biological diversity. She ultimately demurred and enrolled at WPI to be closer to family. It was a fortuitous choice. “I loved it so much,” she says. “I wouldn’t trade it for the world.”
Belisle at the Mamie D. Lee Community Garden in Washington, D.C., where you can find her many weeknights tending her 625-square-foot patch of earth.
will get them to share what they’re doing. That’s helpful for the work she’s doing — she has to talk with scientists, politicians, and everyday people. There aren’t too many scientists who can work comfortably in so many different environments. Melinda is a rare person to come across.”

The talent serves Belisle well in her current role. In 2015 she traveled to Paris for a meeting of the Organization for Economic Cooperation Development, a group that was formed after World War II to help prevent another world war while also facilitating trade. She is part of a team writing a consensus document that “harmonises” regulatory oversight in biotechnology among participating countries. Such papers are used to weigh the risks between modified and unmodified plants. The papers frequently are consulted by bureaucrats and agriculture ministers.

“GMOs aren’t without controversy. I think it’s definitely up for discussion,” Belisle says. “You can have arguments on either side. More than half of the European Union’s 28 member nations ban the cultivation of genetically modified foods, in part because of concerns about their safety. In the United States, meanwhile, more than 90 percent of soybean and corn crops are genetically engineered. Supporters say GMOs reduce the need for harmful pesticides, while detractors say they’ve expanded the use of herbicides, which can kill non-crop plants like the milkweed that monarch butterflies consume during their annual migration. I think for a lot of people, the corporate practices are what really upsets them,” Belisle says. “You’re going from farmers being able to save their seeds from year to year, but now those seeds are patented, so they have to buy them again. What does that mean, especially for farmers who can’t afford it? That’s a big part of the conversation, but I think the attacks on safety may be more unjustified.”

Some major benefactors have cast their lot with GMOs. The Bill & Melinda Gates Foundation, for example, is leading a fight to further develop and evaluate genetically modified golden rice, a variety enriched with beta carotene, a source of Vitamin A. Other crops (including corn, eggplant, casha, and banana) are being genetically modified for people in the developing world. For her part, Belisle serves as a gatekeeper: “We try to evaluate whether the things that companies would like to plant — or even interstate or import or export — are safe,” she says. “Is it safe for the environment and is it safe for agriculture?” One partner at the U.S. EPA and I focus on whether there are pesticide use issues or whether it’s safe for human consumption and feed.”

Sally McCammon, a science adviser for the USDA, says Belisle has a knack for analyzing and processing complex information. “This allows her to take on and deliver upon a variety of intellectual challenges,” McCammon says. “With her extensive scientific training, she is able to distinguish the important aspects of a problem and organize them into discreet and addressable components.”

These were skills Belisle nurtured at WPI. During her senior year, she spent six months at the Arkansas Biosciences Institute working on her M.S. “Researching a Novel Pathway to Vitamin C Synthesis.” Increasing vitamin C levels in crops can create more nutritious foods and result in higher crop yields, she notes. Leading the research was Angelia Lorence, professor of metabolic engineering at Arkansas State University. But Belisle didn’t just benefit from her mentor’s scientific acumen. Lorence was born and raised in Mexico City; she was struck by one particular skill. “I was impressed by her ability to classify and organize data,” Lorence says. “She works well with other people. She can see it happening in real time.”

“My work is having an impact on lives, and can see it happening in real time. I’m just really interested in new kinds of technology and agriculture and how these can be applied to help people,” including, perhaps, solving the mystery of a blight-free tomato.
LINDSAY LOZEAU
PHD CANDIDATE

HONORABLE MENTIONS: NSF IGERT FELLOW • HITCHCOCK INNOVATION FELLOW • CO-FOUNDER & CEO AMPRECKTIONS, LLC • CO-FOUNDER OF I2GO (2016) • SBIR POSTER COMPETITION 1ST PLACE AWARDS WASHINGTON, D.C. (2014) • AMERICAN INSTITUTE OF CHEMISTS (GEMILLS) AWARDS (2014) • BEST CONCEPT PRIZE (GEMILLS, 2014) • BEST OVERALL PRESENTATION (GEMILLS, 2014) • PEOPLE’S CHOICE AWARDS (2014) • VSSTOPRINT CONCEPT 2014 WINNER (2014) • VSSTOPRINT 3-D PRINT COMPANY, STAGES 1, 2, AND 3 • WOMEN’S PROGRAMMING COMMITTEE MEMBER • WPI NSF IGERT COMPETITIVE INNOVATION FUND AWARDS 2016 AND 2015

IGERT, for those unfamiliar with the acronym, stands for Integrative Graduate Education and Research Traineeship. This NSF-funded program at WPI focuses on helping PhD students whose research falls under the umbrella of biodesignation, recognizing the commercial aspects of their projects, and establishing an entrepreneurial mindset. For Lindsay Lozeau, it was the instrument that brought her to WPI and her pursuit of a PhD in chemical engineering.

Armed with a BS in chemical engineering from the University of Rhode Island, the 26-year-old says the fellowship was an offer she simply couldn’t refuse. “I didn’t think I wanted to be entrepreneurial originally—or that I had it in me to be entrepreneurial,” says Lozeau, “but I’d never explored it and this seemed to give me that opportunity.”

With one first author publication and another under review, she has given several presentations at academic conferences and has mentored more than 20 students in developing their own projects in the lab. She’s a recipient of two fellowships (IGERT, Hitchcock) and an Entrepreneurial Grant, and a co-founder of the student-led Chemical Engineering Graduate Organization (CEGO).

If her academic achievements aren’t enough to make her a prime WPI Insider, her entrepreneurial highlights will surely secure her in the role. She is co-founder and CEO of AMPR, a spinout of dean of graduate studies Terri Camusson’s lab that focuses on unique antimicrobial coatings to prevent infections of medical devices. AMPR has received all three stages of the 3-Team grant program from Venture60 (totaling $25,000) and another $20,000 as a 2016 winner of the Hitchcock Innovation Prize. In 2014 Lozeau won the “Best Concept” and this year the “Best Overall” and “People’s Choice” awards for her three-minute elevator pitches at i3 (Investing in Ideas with Impact). She also won the WPI Venture Forum’s 5-Minute Pitch Competition.

Her winnings went toward AMPR’s technology, which is what she co-invented with a pending patent. She is also working on the early stages of a provisional patent application regarding another technology she helped develop. This company, QuadraCare Medical, is focusing on ways to help diabetic foot ulcers heal better. She was funded under an NSF STTR for her PhD project. “This was a great experience, allowing funding for a commercially minded partnership between Histogen Inc. and WPI,” she explains.

When asked what her highlight moment has been at WPI so far, Lozeau says, “I’m getting paid to do research in an area I love, explore my multifaceted interests in chemical engineering and entrepreneurship, mentor students in a way that makes a real difference in their lives, and discover new platforms that have actual commercial potential—how can it not be everything?”
Dear Alumni:

The flurry of activity, possibility, and pride this fall has been incredible, to say the least. Over the summer we said goodbye to our beloved Alumni Gymnasium, a necessity that allows us to keep alive the tradition of alumni supporting current students. Just as Alumni Gym was funded by alumni to meet the need for an athletic space for the students of that time, the Foisie Innovation Studio and Messenger Residence Hall will meet the needs of today’s students and many more in the future. The ceremonial groundbreaking for the new building was held Aug. 31, with attendees given the opportunity to take home a commemorative mason jar of groundbreaking sand and Alumni Gym debris. Those of us who wanted a bigger piece of WPI history took advantage of the opportunity to pre-reserve an original Alumni Gym brick that was carefully removed and preserved during the demolition process.

Our commemorative bricks were picked up Oct. 8, during Homecoming. It was great to see so many alumni come back home. With all the construction activity on the Quad, holding Homecoming on West Street was quite a different experience—how great was that?

Also during Homecoming the Alumni Association posthumously honored trustee emeritus Steve Rubin ’74 with the Goat’s Head Award for Lifetime Commitment to WPI. We were privileged to have his wife, Tracy, there to accept the award, and many friends in attendance to help us celebrate Steve’s commitment to WPI and the role model he provided as a proud, engaged, and dedicated alumnus. His commitment to the Institute is inspiring and will forever be remembered.

The Women of WPI came together on Nov. 12, for our annual conference to share and celebrate the diverse paths and experiences of our lives. Keynote speaker Kristin Tichenor, senior vice president, enrollment management, was inspiring and the breakout sessions educational. We couldn’t have asked for a better day. I am proud to call these women my peers. I am excited by the possibilities that lie ahead for this talented group engaging more alumnae in the future.

And, looking to the future, there are two events I’d like to bring to your attention. The first provides us the opportunity to continue the proud tradition and legacy that has been well established by all of us and by alumni before us—and, I anticipate, by alumni of the future. November 29 marks our second Giving Day. Our goal is to engage as many alums as possible with a target of 1,000 donors in 24 hours to secure an additional $125,000 for the WPI Fund. I am confident that the generosity of our alumni will be evident once again and we will crush that goal.

The second event is Alumni Weekend 2017. That’s right! Mark your calendars for next June 1–4. It’s never too early to plan for a great time with great people. I hope to see you there.

All the best—and with pride,

Rachel M. Delisle ’96, ’06 MBA
If a prototype exists for a strong and effective college alumni group, it can be found in Panama. Through formalized as the WPI Panama Alumni Chapter only a year ago, its members have long served as unofficial ambassadors for the university and were instrumental in creating a project center in their country’s capital.

The alumni chapter’s beginnings began in the early 1990s when the first wave of Panamanian students graduated from WPI. Graduates stayed in touch over the decades, drawn together by the shared experience of traveling to a college far from home, then returning with a unique education and a desire to help advance their country. Roughly 60 Panamanians have graduated from WPI since Irvin Helfman ’83 initiated this wave. At first, the alumni socialized, supported one another professionally, and promoted their alma mater to high schoolers. But over time and as they rose in their government and private sector careers, they wanted to etch their presence in their country. With the Panama Canal expansion and a high-rise construction boom, among other developments, Panama offered hands-on learning opportunities that seemed tailor-made for WPI graduates who wanted to etch their presence in their country.

“Our school was running projects in the region, but not in Panama,” says chapter president Fernando Motta ’83. “It’s a country that’s developing very rapidly and we thought these were great opportunities to make a difference. In Panama it was a dream of ours to have WPI students helping Panama and also to have more students from Panama go to WPI.” Motta is CEO of Felipe Motta, a food, wine, and spirits retailer and distributor.

In promoting a project center to WPI, the group cited Panama’s diversity, stability, development opportunities, and, as important, “the many alumni now residing in Panama to support and advise WPI in this endeavor,” recalls Helfman, who currently serves in the public sector in a five-year post as general administrator of his country’s National Authority for Government Innovation (the agency in charge of digital transformation).

In 2007 the alumni hosted WPI senior administrators and helped identify potential projects in civil engineering, water management, and operations management. Two years later, professor Tahar El-Korchi and former professor Jeanine Plummer of the Civil and Environmental Engineering Department established the Panama Project Center in Panama City. To date, WPI students and faculty have spent over 10,000 hours of project activity to benefit the Panama Canal Authority, and another 12,000 hours to benefit other partners, including Copa Airlines.

With encouragement from WPI, the alumni adopted a charter and in 2013 it became the Institute’s first international alumni chapter. This October WPI graduates in Hong Kong followed suit, and a Beijing alumni chapter is in the works, according to Karen Bean, executive director of advancement for global strategies and special projects.

“They’re the ideal model for an alumni chapter. If we could just replicate the enthusiasm and the structure around the globe, it would be wonderful,” Bean says of the Panama group.

International graduates have shared knowledge of both WPI’s curriculum and critical needs in their home nations. Their willingness to help students apply their education to these challenges make them integral to advancing the goals laid out in President Leshin’s strategic plan, Edcampus.

“The alumni group has opened a lot of doors for us,” El-Korchi says of the Panama alumni. “They’ve been our networking champions.”

For Motta and Halman, WPI’s presence in their country has stoked pride in their alma mater, in their country, and in the strength of their chapter. WPI alumni have served in leadership positions in the Chamber of Commerce, Industry and Agriculture of Panama (three of its presidents), Panama Canal Authority National Private Sector Council, and other governmental and private agencies. All of this has translated into greater philanthropic support for WPI, as well; last year the Panama Alumni Chapter presented a check for $50,000 to WPI to support students and faculty.

“This is no coincidence,” Halman says. “This is the work of the WPI Plan, which instills and develops a leadership interest in giving back and contributing for a better society.”

— Sharron Kahn Luttrell

PANAMA ALUMNI CHAPTER DECADES IN THE MAKING

WPI BREAKS GROUND FOR FOISIE INNOVATION STUDIO

On Aug. 31, more than 250 WPI and Worcester community members gathered on the Quad near the site where Alumni Gymnasium once stood for a ceremonial groundbreaking for the Foisie Innovation Studios.

“Alumni Gym was 100 years old, a project initiated by alumni from the late 19th and early 20th centuries, who wanted to create a space for the students—all of us at that time—to create healthy bodies as well as healthy minds,” President Laurie Leshin reminded the audience.

The Foisie Innovation Studio builds on that spirit of innovation and the legacy of the WPI Plan to create a space to take the contributions of our students, faculty, and staff to new levels of impact,” President Leshin said. The state-of-the-art facility is central to the goals laid out in her inaugural strategic plan, Edcampus.

“Through new constructs like the Global Impact Lab and the Innovation and Entrepreneurship Center that will be housed in “the Foisie” the nickname the president predicted the community would go into the decision to take down Alumni Gym and rebuild. While a difficult decision, she said, it was “absolutely the correct decision.”

“Now, it’s time to bring a new face to the Quad,” Malense added. “The Foisie Innovation Studio is the embodiment of the WPI Plan’s spirit of collaboration and innovative projects and our own maker movement,” she said, “we envision a place that empowers students to develop ideas and expand the ideal of the WPI Plan for decades to come, and will lead to positive impact in our home communities of Worcester and communities around the world.”

Francena Malense, vice-chair of the WPI Board of Trustees and chair of the Facilities and Campus Infrastructure Committee, described the community involvement that went into the decision to take down Alumni Gym and rebuild. While a difficult decision, she said, it was “absolutely the correct decision.”

“The name of the residence hall —the two upper floors of the Foisie Innovation Studios — was also unveiled at the groundbreaking. Messenger Residence Hall is named in honor of Priscilla and George Messenger ’51 and their lifetime support of WPI students. George is widely known for his pioneering work on the hardening of electronic systems, including contributions to the development of the EKG and the hardening of the circuits for the atomic clock in the Global Positioning Satellite.

“It is with tremendous gratitude and affection that we name this residence hall for Priscilla and George Messenger,” said President Leshin. “Their support for WPI students has been inspirational, and it is fitting that the students who will call Messenger Hall will be at the heart of this campus community.”
“The projects are theoretical, but many students take it well beyond that, especially when the topic sparks a passion. We’ve had students get provisional patents for project work, design a fundraiser to build two wells in Africa ... and get unserved food in the dining hall to a local shelter.”

Wobbe personally finds the GPS intriguing on at least two fronts: there is no shortage of topics to fold into the curriculum, and she collaborates with instructors in disciplines she normally never teach. When the topic sparks a passion, “I saw GPS as a way to make that challenge more actionable.” Molinari gifted $150,000 to fund visiting scholars for the GPS program. He wishes the GPS approach had been around when he was at WPI. “I had no idea what an engineer did,” he says. “With physics, you would get so into the bowels of what you were doing with equations – how it related to big problems was unfathomable. It makes so much sense to help kids understand where they come in.”

— Susan Shalab

EDGAR “LEO” DOUVILLE ’39, a generous supporter of WPI scholarship, died Aug. 23, 2016, at the age of 99. A longtime resident of Wilmington, Del., he was predeceased by his wife, Sara. He is survived by his son, Leo E. Douville.

A career design engineer, Douville got his start in the aircraft industry after graduation. With engineering jobs scarce in New England, he moved to Maryland to work for Glenn L. Martin, where he was responsible for plant layout and power systems. In 1946, he joined the DuPont Company, where he remained for the rest of his career. His work took him around the world, designing and building textile and fiber plants. His overseas postings included long-term assignments overseeing plants in Germany, Northern Ireland, Brazil, and Iran. He retired from DuPont in 1981, with 35 years of service.

In 2009, Douville made a bequest of $1.5 million to establish the Sara and Leo Douville Endowed Scholarship at WPI. In a profile in WPI Union, the newsletter of the Alden Society, he said, “I struggled through financing my education, working all your round to earn money for my WPI education. I want to make it easier for students to get a college education.” He also noted that his world travels had enlarged his understanding. He praised the “real world” experiences that WPI offers students and expressed his intent to “help educate students more than through books alone.”
submit your class notes to CLASSENotes@wpi.edu

1955
The Lock 15 East blog site posted a tribute to the late Bob Stempel, with photos from his high school yearbook and other memorabilia. It was noted that he earned his college tuition fixing cars and went on to become chairman and CEO of General Motors.

1959
Robert P. Fitts’ wife, Cynthia, shared the sad news of his passing on Feb. 16, 2014. He was owner of Robert P. Electrical Supply, and a member of Alpha Epsilon Pi.

1961
Phil ‘O’ HIll is retired and living in Pennsylvania, after working for APL, headquartered as AACC, until the late 1990s. He started his career in chemical engineering at Air Producers, then moved into business and marketing positions. “Working in the United States, Europe, and Great Britain and traveling just about everywhere in the world has been enlightening, challenging, and fulfilling,” he wrote. After leaving APL he went into real estate management. “My wife, Mary, and I have extensively, with homes in Pennsylvania, outside Hilton Head in South Carolina, and the Gulf Coast in Texas. Between us, we have eight children and many grandchildren all over the United States— in these states, and in Georgia. Don’t retire in retirement; we work at our business and real estate interests. Life consistently is a challenge, fun and at times exasperating but always interesting. Even now I am looking forward to whatever will bring, I hope all at WPI realize what the school offers a future and the opportunity that can be dreamed!”

1966
Pete Kudelka and his wife, Karen, have six children, all of whom have jobs. He graduated in 1966 in electrical engineering and is retired and living in South Carolina, and the Gulf Coast in Texas. Between us, we have eight children and many grandchildren all over the United States— in these states, and in Georgia. Don’t retire in retirement; we work at our business and real estate interests. Life consistently is a challenge, fun and at times exasperating but always interesting. Even now I am looking forward to whatever will bring, I hope all at WPI realize what the school offers a future and the opportunity that can be dreamed!”

1967
Carl Carlson was the 2016 Goenificance speaker for James Madison University’s spring commemoration ceremony. As founder and CEO of Practice of Invention, he is known as a thought leader on the subject.

1968
Women’s North High School dedicated its library to Claudette Loughlin (MHS), in recognition of her longtime service teaching science in the local school system. Newspaper coverage paid tribute to her dedication, and to her talent for attracting bright young people into the classroom. Loughlin taught in the Warwick School System for many years, then served as an administrator, focusing on staff training and curriculum development. She retired in 2012, but returned in 2018 to serve as interim superintendent of the Warwick School system for several years.

1971
Tristan Intrator, Claude Marcel (MSEE, 74 PhD) received the Paige Alumni Network Business Innovation Award, honoring his career of almost three decades at Procter & Gamble (1971–2001). Among his notable achievements are developing innovative liquid detergent for the European markets, creating the Tide liquid product, and introducing Pampers baby wipes into a worldwide market. The award recognizes one of the state’s youngest and largest full-service business law firms. His practice focuses on business and intellectual property litigation, as well as probate, environmental, land use, and securities litigation. He earned his law degree at Simon University in Gulfport (gulf la) and was admitted to the Florida bar in 1977.

1973
Fight against breast cancer! Joel Lathrop came to the company’s environmental site assessment and remediation practice. He brings more than 40 years of experience to his appointment, including expertise in groundwater hydrology and soil mechanics, and 20 as manager of his own environmental services firm. Joel is founder of the LSP (Licensed Site Professionals) Association and participates in numerous charity bike rides, including the Pan-Mass Challenge and the Livestrong Relay in Austin, Texas. He lives in Ashland, Mass.

1976
Mark Johnson has retired after 40 years in the water utility business, “after earning a master’s in environmental engineering from the University of Maine, Orono. I worked for the Bridgport Hydraulic Company in Connecticut for 15 years, becoming an officer at age 33, and president of its Stamford Water Company subsidiary at age 37,” he said. My career took us to Illinois in 1992, where I worked for the Northern Illinois Water Corporation (Champaign). We moved to Delaware in 1999, where I became VP Engineering for Illinois-American Water. In late 2004, I moved to Gaithersburg, Md., where I have served as director of engineering for the Gaithersburg Water District for the last 16 years. I am an expert on the Columbia River and the California cap-and-trade system, and MT&E as a whole,” said Mark Johnson (MSE 73), president and CEO. “We have many regulatory and environmental issues that we need to address to educate prospective entrepreneurs and help them make decisions and be successful,” said Mark Johnson (MSE 73), president and CEO. “We have many regulatory and environmental issues that we need to address to educate prospective entrepreneurs and help them make decisions and be successful.”

1979
Lina Meurath was appointed area coordinator to the city of Burnsville’s transportation and infrastructure office of WSP | Parsons Brinckerhoff. Her responsibilities include oversight of Phase 3 of the city’s Expo Line light rail, its Regional Connector subway, and the Wooside subway extension. She rejoined the LA office in 2009, after eight years in Minneapolis and Chicago.

1980
Jay Schnitzer was appointed vice president and chief technology officer of MT&E Corp. He was previously director of biomedical sciences, overseeing the company’s health and environmental site assessment and remediation R&D program. “Jay brings an impressive R&D background and over 30 years of experience in the environmental field,” said Dan Maguire (MSE 83), CEO. “He has a proven track record of bringing realism and humor to his work, and is a true leader in the field.”

1994
Mark Johnson is founder of the LSP (Licensed Site Professionals) Association and participates in numerous charity bike rides, including the Pan-Mass Challenge and the Livestrong Relay in Austin, Texas. He lives in Ashland, Mass.

2016
Phil “O’Hill” is retired and living in Pennsylvania, after working for APL, headquartered as AACC, until the late 1990s. He started his career in chemical engineering at Air Producers, then moved into business and marketing positions. “Working in the United States, Europe, and Great Britain and traveling just about everywhere in the world has been enlightening, challenging, and fulfilling,” he wrote. After leaving APL he went into real estate management. “My wife, Mary, and I have extensively, with homes in Pennsylvania, outside Hilton Head in South Carolina, and the Gulf Coast in Texas. Between us, we have eight children and many grandchildren all over the United States— in these states, and in Georgia. Don’t retire in retirement; we work at our business and real estate interests. Life consistently is a challenge, fun and at times exasperating but always interesting. Even now I am looking forward to whatever will bring, I hope all at WPI realize what the school offers a future and the opportunity that can be dreamed!”

Tell us about it in Class Notes. And send a photo while you’re at it.
52 WPI JOURNAL winter/spring | JUL 2016

mocktail

5210 Ron Caruso is IT program director at the office of the Director of National Intelligence (ODNI), where he has worked as an IT consultant for more than 30 years. In addition to his career in IT, he is founder and president of Legends Sports Leagues Inc.

Lee Henry Kahle and Stephen Kallali ’91 (BS EECE) have relocated to West Seattle, Wash. Lee is general manager for Light Brigade, a fiber-optic training and certification company. Steven continues his physical therapy practice. Their daughter, Amanda and Jillian, are located in nearby Oregon. “We love to reconnect with WPI friends and colleagues, so let us know when you are in our beautiful city,” they add.

1981

5211

Phil Guernik, director of water and sewer operations in the Worcester Water Department, was in the news last summer, speaking about drought conditions that forced tighter water restrictions on the region. He spoke of the importance of raising awareness of the severity of the call for action and urged residents and business to heed the severity of the situation, and he urged the importance of raising awareness of the need for water conservation and the importance of raising awareness of the need for water conservation and the importance of raising awareness of the need for water conservation and the importance of raising awareness of the need for water conservation.

1982

5212

Brian Meehan received a Fulbright Global Scholar award to pursue his project, “Understanding and Advancing Performance-Based Building Regulatory Systems.” He says, “I am in the inaugural group of scholars for this particular Fulbright award (just launched last year), and there are only a total of 19 awarded.” This award will allow him to conduct research in Japan, Spain, and Finland, where he will investigate gaps and challenges with existing systems, explore the potential for establishing tolerable levels of risk as a basis for establishing regulated levels of safety and performance in buildings; develop the foundation for a risk-informed performance-based building regulatory system framework that addresses gaps and better anticipates and adapts to emerging needs; and test specific components of the framework. “I have already conducted similar work in four other countries as part of my sabbatical: Australia, New Zealand, the Netherlands, and Scotland, with support from a previous Fulbright award. I am also benchmarking the state of fire safety engineering in all seven countries, and looking at what is needed to implement a risk-informed performance-based approach to fire safety engineering.”

1984

Jeffrey Goldman writes, “It’s been a hectic and rewarding year. I was an invited speaker at the Platts Caribbean Energy Conference in Trinidad, and at aDown Stream Week Conference held by the King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. In late March I presented a seminar on campus at WPI entitled “Power Generation in Tomorrow’s Complex World” as part of the Sustainable Energy Project Center speaker series. Since then, I’ve spoken at the Power-Gen Europe Conference (Milan, Italy), and the PowerGen Africa Conference (Johannesburg, South Africa). In August I presented at the PowerGen Natural Gas Conference in Columbus, Ohio. While traveling around the globe I’ve been writing a blog about trends in gas turbine fuel flexibility for the G2 Powergen website. “I had the opportunity to meet President Laura Lebid at a reception hosted by WPI at the IFIEE Robotics International Championships in St. Louis. I attended the Championships as a keynote speaker and as an ABC Judge. I also was asked to mentor two WPI students for the upcoming World Championship for 2016. In my spare time, I continue to be an active scout leader, and became a member of the Boy Scout Executive Committee for my local Boy Scout Council (Twin Rivers).”

1988

Joe Pisano was among a dozen alumni who turned out for WPI’s annual Summer Band Concert, which featured student choir groups, pop music, and other lighter musical fare—“reason we’d be less likely to play in an academic program,” according to conductor Doug Weeks. This year’s program included a tribute to the late musician Prince. “Joe was very active for both Rich Egly and myself and is still a very active player,” says Woda.

David Politzer was elected international director of the American Water Works Association. He is an associate and New England client-service manager for CDM Smith, an international consulting engineering firm based in Boston.

1990

Michael Pace has completed 15 years of service with Wells Fargo Advisors. He holds the post of president of Wells Fargo Advisors. He holds the post of president of Wells Fargo Advisors. He holds the post of president of Wells Fargo Advisors.

1991

Ansh Gosh, co-founder and CEO of Ironship, was the subject of a Forbes “toughthink” profile in the series “Thought Leaders Changing the Business Landscape.” The story called his other articles “immensely soluble,” and said, “Don’t allow them to take the beaches. It’s the business’s obligation to defend its network, its customer’s data, and their own proprietary information.”

Shawn Merriman’s career with Cornerstone was the subject of a newspaper profile in his hometown paper, the Harbor News. The Harvard, Ky., resident spoke about gender stereotypes as well as stereotypes about engineering. It’s a lot more…in-depth thinking and evaluation of data. I still apply the equations I learned in engineering. “It’s a lot more…”

1993

Jeff Jorczak (writing as Cody Leet) has published a science fiction thriller titled Spheria. He describes himself as “a writer who likes to code, or a coder who likes to write. You’re the judge.” The novel opens with the invention of the “Qube” – a Quantum Binary Uncertainty Engine that size of a sugar cube, with 3,840 quantum bits. Readers are soon transported to a virtual world with a sinister secret, where powerful technology might be used for good—or evil. Jeff lives in Connecticut with his wife, four kids, a dog, a cat, and 20 birds. Find more at codyleet.com.

1994

Jason Johnson sends us this summary of his visit to the Hoover Dam. “Turned a vacation into an excuse to see one of the greatest Depression-era engineering projects.”

Jeff Jorczak (writing as Cody Leet) has published a science fiction thriller titled Spheria. He describes himself as “a writer who likes to code, or a coder who likes to write. You’re the judge.” The novel opens with the invention of the “Qube” – a Quantum Binary Uncertainty Engine that size of a sugar cube, with 3,840 quantum bits. Readers are soon transported to a virtual world with a sinister secret, where powerful technology might be used for good—or evil. Jeff lives in Connecticut with his wife, four kids, a dog, a cat, and 20 birds. Find more at codyleet.com.

1995

Allor years of dreaming, Suzanne LePage and her husband, Jonathan Caski, have opened a business with a mission—to keep local food production in Maine, and serve as a model for how a local food economy can thrive. Homefield Brewing, located in Sweden, Mass., grew out of the research Jonathan conducted for his book, Beer Terrain. Field is close to the Borderline to the Maine Coast—yet with contributions from far away. Their goal was make beer with 100% local ingredients. “While many small brewers...”
Cody Harrap, a manufacturing engineer at Pratt & Whitney, recently graduated from P&W’s Manufacturing Engineering Development (MEDS) program, a two-year rotational program of six-month rotations offered to new hires. “It really instills confidence in you. Relevance is not something an institution can assign by fiat,” she writes. “Your work matters when it matters to people—when THEY deem it so important. My employment extends her vision to other mission-driven organizations—including libraries, the National Parks, churches, and after-school programs—offering advice on making their work more vital to the communities they serve.”

“As one of 48 members of Team Kinetic Karma, I rode for nine funds for the compassionate care and groundbreaking research taking place at Dana-Farber Cancer Institute in Boston. Thank you to all WPI alumni and staff who made generous contributions for I have raised more than $5,100 (more than $5,400 cumulatively over two years). To celebrate, name a loved one of my donors and myself. I included their names on ribbons on my jersey.”

Team Kinetic Karma completes the Pan-Mass Challenge
A therapeutic intervention that targets the mechanisms in leukemia and other cancers,” she says.

Greg Howes, (WES EC) is co-founder of their Oracle Technologies in Bedford, N.H. “Our Oracle addresses a common problem: managing heating fuel,” he writes. “Our vision transforms the way you purchase heating fuel. Check out our Kickstarter or kick at [202/MG].”

Lily Clark, (Cosm) writes, “My husband, Chris Jeznach ’10 and I recently moved to the Providence, R.I. area after a year completing our graduate degrees at Umass Amherst. Chris received his MBA in February and continues to work as a sales manager at Sprint International Corp. I completed my PhD in civil engineering in September and accepted a job as an assistant professor of engineering at Roger Williams University starting in the fall 2016 semester.”

José Molina, (the sportswear.com), he is president of the Puerto Rico National Space Society Chapter Inc., and a volunteer at the Ancho Observeatory Space Academy, serving as a professor and mentor. He has also worked at NASA, UTC, Aerospace, and InTouch.

POW! WOW! Worcester shook up the Woo this summer

2013

Joseph Gasparino (MBA) was the 2016 commencement speaker for Assumption Community College, where he earned an associate’s degree in 2003. He’s currently working toward a DBA, with a focus on Lean Six Sigma Implementa-

2014

POW! WOW! Worcester shook up the Woo this summer, drawing internationally renowned muralists and thousands of spectators to downtown Worcester to witness the creation of 15 outdoor murals over 10 days, plus art talks, local arts events, and outdoor celebrations. The event was coordinated and operated by Arturo Worcuaher and a committee of community partners.

Joshua Croke ’14, executive director of Arturo Worcuaher says, “POW! WOW! Worldwide partnered with us to bring this event to Worcester because of our mutual passion for using art to revitalize communities. We’ve already started planning next year’s festival and are looking forward to bringing more artists, events, and color to Worcester for years to come.”

Christopher Soria began working as a physical designer for submarines and other electrical equipment at Black & Veatch earlier this year. In his five time he enjoys helping out the WPI chapter of Engineers Without Borders as a professional mentor, and planning his next trips and adventures worldwide.

Paul Ventimiglia (paul@polonionline) competed in Season 2 of ABC’s BattleBots as captain of the Aptyx Designs team (co-sponsored by WPI), along with software engineer Jeremiah Jinno ’07. Although Bite Force was defeated by a robot named Chomp, the team stands at seven wins for eight games over the show’s two seasons. #wewantseason3, anyone?

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Return to WPI—advance your career and pursue a graduate program in science, engineering, or business.