

44 The power of  
SONG

ART  
of the Abyss 14

20 New Leader Defends the  
DRAGON

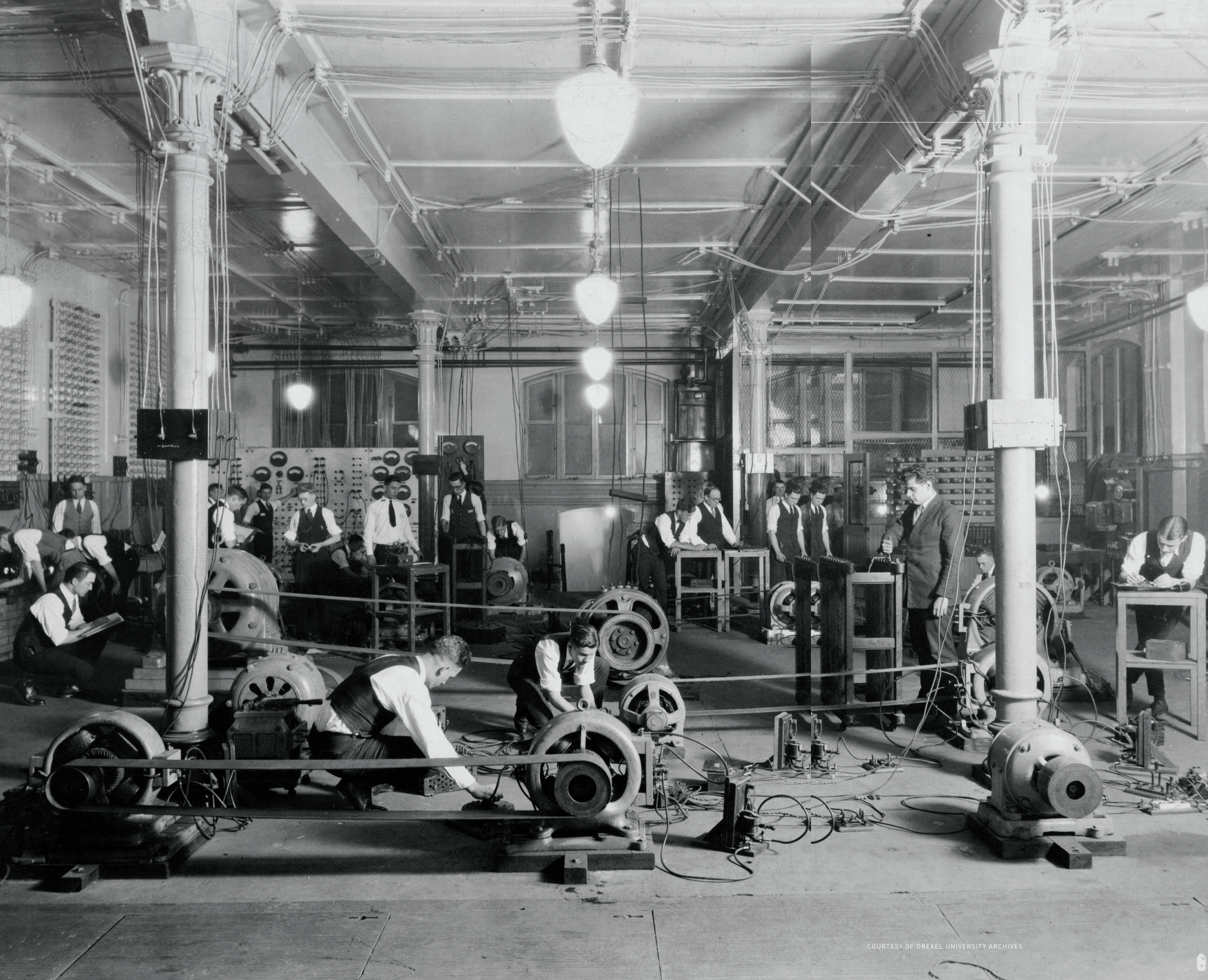
# Drexel

MAGAZINE



Meet the guys of  
Oat Foundry and  
the rest of our 40  
Under 40. 22





COURTESY OF DREXEL UNIVERSITY ARCHIVES

» Drexel is celebrating its 125th anniversary all year long.  
Join the party at [Drexel.edu/125years](https://drexel.edu/125years).

ARCHIVES

## MEN AT WORK

This undated photo shows Mechanic Arts Department students working in the electrical laboratory in the early days of the Drexel Institute of Art, Science and Industry.

# 7011

Number of students in Drexel's first graduating class.

# \$4,000

Total tuition in today's dollars (or about \$150 for two years of instruction) for students in mathematics, mechanical drawing, physics, chemistry, shop work in wood and iron, machine construction from working drawings, theory and practice of the steam engine, and pattern making.

Number of departments in operation at Drexel's founding.

They included art, science, mechanic arts, domestic economy, technical skills, business, physical training, teacher training, a department of lectures and evening classes, the library, reading room and the museum.

# \$0

Tuition that founder Anthony J. Drexel originally wanted to charge for classes. First president James A. MacAlister persuaded him to charge tuition so that only serious students would attend.

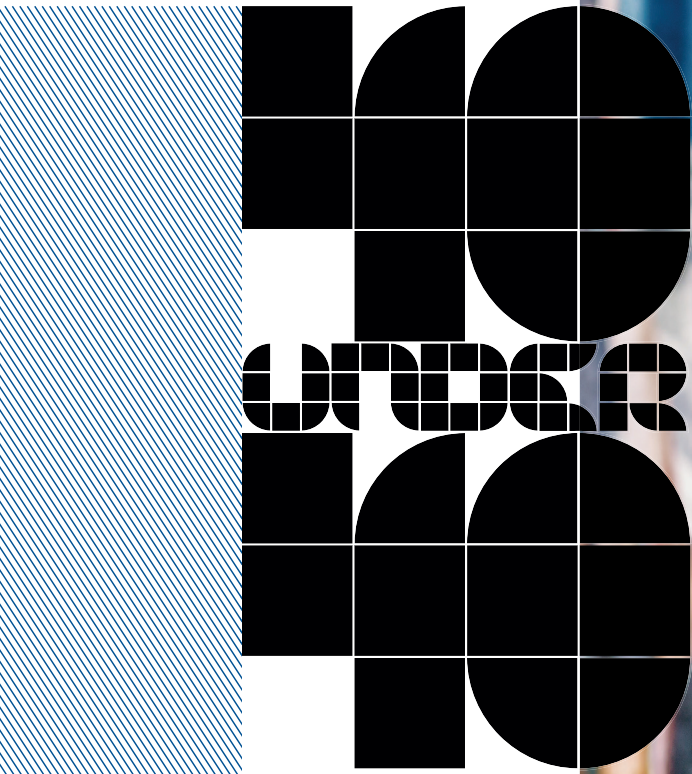
Number of students enrolled at the Drexel Institute of Art, Science and Industry in its first year.

# 1,600





FEATURES



This year marks the fifth anniversary of *Drexel Magazine's* 40 Under 40 program, which has honored 200 young alumni for extraordinary accomplishments.



22



44

Sing With Me, Sing for the Years

Nursing doctoral candidate Kendra Ray is bringing her research-tested music therapy to assisted-living homes around the world.

THE VIEW FROM MAIN

Our fifth annual “40 Under 40” list of young Drexel graduates coincides with the launch of a University branding campaign to raise greater awareness of our unique model of education — called “Ambition Can’t Wait” — and it is fitting that we celebrate both together. The remarkable arc of achievement represented by the alumni you will meet on these pages says everything about the value of a Drexel education.

Our students are problem-solvers; they’re entrepreneurial and impatient to succeed. They are developing smart faucets and new options for post-mastectomy reconstruction, exploring memory loss and Alzheimer’s, creating cutting-edge graphic design, and managing a rock band’s fan engagement, to single out a few. And there is a common thread for most: They were well on their way in their careers before they even grasped a diploma.

One after another in the pages that follow, they cite the unique power of their co-op experiences to prepare them for achievement. While still students, they built the prototypes, made the connections or published the papers that laid the groundwork for early professional successes. I include in this category doctoral candidate Kendra Ray, separately featured in this issue, who uses music therapy to help elderly patients afflicted with dementia reconnect with their memories. She is not yet out of school, yet her studies showing the effectiveness of music therapy in combating depression are influencing nursing homes across the nation and as far away as Israel.

You may have already encountered Drexel’s “Ambition Can’t Wait” messages in the Philadelphia region, and in some national publications such as *The Wall Street Journal* — but I’m proud to know that the restless drive to succeed is something every Drexel graduate is already well aware of.

Sincerely,

John A. Fry / President

DEPARTMENTS

1 Ledger

A numerical and illustrated tour of Drexel.

4 Editor’s Letter



6 Cross Walk

Public Realm Plan, new museum, Galanos gowns, fundraising, Drexel ranking, Center for Jewish Life, Promise Zone grant, new deans, co-op campaign.

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News from Drexel Athletics.

Need for Speed

Top swimmer Rachel Bernhardt is reaching for the Olympics.

Defending the Dragons

Basketball coach Zach Spiker is playing to the DAC Pack.



48 Cross Roads

Good times were everywhere during the Global Night of Networking.

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Keep up with fellow alumni’s careers, weddings, families and traditions.

52 Friends We’ll Miss



56 Crossword

Our youngest readers will see themselves in this edition’s puzzle.





EDITOR'S LETTER

# A Little Something for Everyone

Each year when we publish our annual feature on alumni under 40, we get a certain question, from certain quarters: “What about the rest of us?”

It’s a fair question. With more than 150,000 active alumni from all walks of life, Drexel has tons of graduates who are over 40, over 50, even well past retirement and still resolutely awesome, with fascinating stories to tell. And while people seem to like the 40 Under 40 — alumni responding to our readership survey last year singled it out more than any other as their favorite feature — no small number of you mentioned that even though you enjoy reading about young alumni, you feel a little overlooked.

To those folks I have to say that I don’t think a “40 and Above” program is going to happen.

But I hear you. If you share this feeling, we’re planning a series of stories next fall that maybe you can get on board with. Education at Drexel is all about experiencing things firsthand, up close and real. And we know our alumni are the ultimate doers.

And we want to talk about that. What have you done that was an experience unlike any other? What have you seen that few people get to see? What can you do that most people can’t?

That’s the angle. Tell us what it was like. What is it like to fight a fire? Write a best-selling novel? Fly in a space mission? Make your first million?

Drexel alumni have done it all, at one time or another, so let’s hear about it. Send a sentence or two to [magazine@drexel.edu](mailto:magazine@drexel.edu); we’ll take care of the rest.

Needless to say, there’s no age limit. I’m hoping to hear from you. In the meantime, thank you for reading.

*Sonja Sherwood*

Sonja Sherwood / Editor



**ABOUT THE COVER**  
Photo by Jeff Fusco with alterations by Pentagram Design.  
Shot inside the Oat Foundry shop in Bensalem, Pennsylvania.

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LETTERS

# Anniversary Edition Fan Mail



What a wonderful edition. I thought it was a perfect tribute to Drexel’s unique and exciting story! Well researched and creatively designed and written, the magazine’s stories and facts are fascinating, funny and substantive. Wow, has the University grown on all metrics since I graduated. One page was about the ROTC program. I remember wearing my Army-like uniform (ill-fitting) and shouldering an M-1 rifle (unloaded) while riding Philly’s elevated train and feeling utterly awkward yet vaguely proud. Well done.

**LARRY J. ROSENBERG**  
BS business administration ’65  
Sedona, Arizona



I really enjoyed the anniversary edition. But you forgot this 1968 hoax from the *Daily Pennsylvanian*. It was very believable at the time!

**JOE DASCOLA**  
BS commerce and engineering ’68  
Tampa, Florida

I have to compliment you and your staff for an outstanding history of the school. When I attended we were basically one building with some smaller houses in the area. You surely described the fantastic growth of Drexel. However, I noted one omission. From 1946–50 I was a member of the ROTC football band. We performed at every football game and raised the spirit of the Drexel student body. In my opinion we brought life to the school. During the war years the band was as few as nine members. Can you imagine a nine-member marching band? By 1950 it had grown to a normal size. Perhaps if you write a sequel to the issue you can insert a mention of the “Dragon Band.” Thank you again for such a wonderful magazine.

**E. DAVID FIRST**  
BS business administration ’50  
Norristown, Pennsylvania

*Correction: In the fall issue, the captain of the undefeated 1955 Drexel football team was incorrectly identified. That year, the team had two co-captains: Everett Gest Jr. ’57 and Arthur DeCampo ’58. In addition, the photo of three football players is of the 1958 team.*

# Drexel MAGAZINE

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CROSS WALK

CAMPUS

# Masters of the Realm

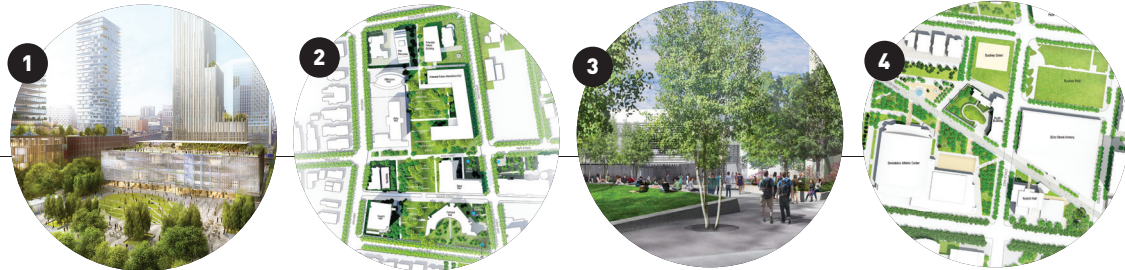
*An ambitious plan to improve the campus for the thousands of students, faculty, staff and alumni who traverse it every day intends to tell one cohesive story: This is Drexel.*  
By Katie Clark

Buzzing low across the 98 acres that make up Drexel's campus, there is an energy waiting to spring forth, fully realized. You get a glimpse of it with each new building, with each new project that slowly transforms the commuter campus of the past into one of the liveliest urban pockets in the city of Philadelphia.

But this campus has a bigger story to tell, one that perhaps can't be told through disparate construction projects across campus. A blanket of attention must be paid to enhance the campus in a holistic and encompassing way. Knowing this, in 2015 Drexel engaged West 8, a landscape architecture and urban design firm, to develop a Public Realm Plan for the University City Campus, a step toward realizing the Campus Master Plan Drexel established in 2012. The two plans complement each other to distinguish Drexel as a vibrant urban university district, bring the campus to the street, draw the community around shared spaces and expand on the University's plans for an innovation district known as Schuylkill Yards.







1 SCHUYLKILL YARDS

The 14-acre Schuylkill Yards project is a proposed mix of residential, retail, office, academic and open space that will be built on land adjacent to Drexel's campus over the next 20 or so years. It will connect to Drexel's campus through the extension of Woodland Walk, a promenade on JFK Boulevard, and green space in front of One Drexel Plaza, to be named Drexel Square.

2 STUDENT NEIGHBORHOOD

Seven major residence halls make up Drexel's student neighborhood, which spans from Arch Street to Powelton Avenue and between 33rd and 34th streets. Public Realm Plan improvements include the addition of green space, lighting and walkways and informal seating and spaces for socializing.

3 KORMAN QUAD

A Public Realm Plan project underway now is the expansion of the Korman Center and the creation of an inviting campus green in front of it, to be named the Korman Quadrangle. The transformation is slated for completion this fall.

4 LANCASTER WALK

The vision for Lancaster Walk, the multi-block walkway that connects the student residential neighborhood to Market Street and the academic core, includes new lighting and seating, rain gardens and the addition of green spaces.

"This is about creating a functional and aesthetically pleasing environment for our students from an academic standpoint but also just for socializing and enjoying this beautiful campus we're creating," says Drexel President John Fry. "It's very important that we have these beautiful, quiet, contemplative spaces to help build community here at Drexel."

The plan calls for changes both small and large — the larger projects include transforming Lancaster Walk, making Market Street more pedestrian friendly and major enhancements to the student residential neighborhood. Some changes include lighting, stormwater systems and the addition of more green space across campus.

Fortunately, the designers at West 8 had a strong foundation to build on when developing the plan.

"Drexel already has this interesting urban quality with two boulevards running through the heart of it," says Adriaan Geuze, founding director of West 8. "And the embedding of the University in the city of Philadelphia and the University City District is remarkable."

The firm also has an enormous canvas to work with. Of the 98 total acres that make up Drexel's campus, only 40 percent are currently occupied by buildings, leaving 58 acres of places and spaces in which to learn, interact, play and relax.

"Right now, the campus is fragmented, and some areas can be described as harsh," Geuze explains. "We know that some of the streetscape is traffic-dominated and we know people are looking for more sidewalks and safer spaces for bicycling. These things should come together, and we have a very good recipe for that."

While there is some limited University funding to address some of the plan's smaller projects, gifts will accelerate the process, which is expected to span several decades. One such project made possible through philanthropy is underway right now — the Korman Quad project builds on and around the 1958 Korman Center at the heart of campus that has served as a University landmark for decades. The Hyman Korman Family Foundation made a gift toward its renovation last year, and the University matched it. The donation came not long after a \$5 million gift from the Raymond and Ruth Perelman Education Foundation in 2014 that enabled Drexel to transform the asphalt passageway on the west side of Main Building into the Perelman Plaza greenway.

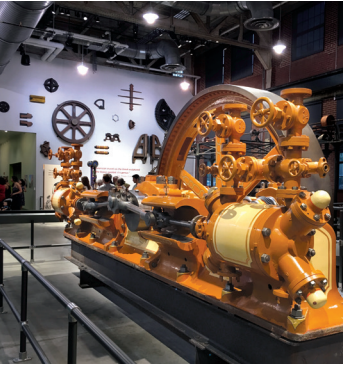
The transformation laid out by the Public Realm Plan is just a natural part of Drexel's evolution, says President Fry.

"We are developing over time one of the greatest and most powerful urban campuses in America. The people I speak to are astounded by the transformation of the physical campus and are looking forward to seeing more to come. Thanks to the Public Realm Plan, we have a smart playbook to get that done."

This 19th-century ammonia compressor on display at the National Museum of Industrial History provided refrigeration at the American Brewery in Baltimore.

ENGAGEMENT

Pulling History From the Shadows



Thanks to help from Drexel's Center for Cultural Partnerships, the National Museum of Industrial History in Bethlehem, Pennsylvania, is now open.

The idea for the museum dates back to the late '90s, when Bethlehem Steel was struggling and its CEO, Curtis H. "Hank" Barnett, wished to preserve the sites and the story of the powerful manufacturing company. It remained in the planning stages for about 15 years, until new leadership brought in Drexel's Rosalind Remer, vice provost and Lenfest executive director of the Center for Cultural Partnerships, as a consultant.

In just over a year, Remer and her team designed the museum's layout, curated and developed the exhibits, and prepared the museum for the public.

"It was a wonderful way to promote the center and what we're capable of doing when faced with a unique challenge," Remer says.

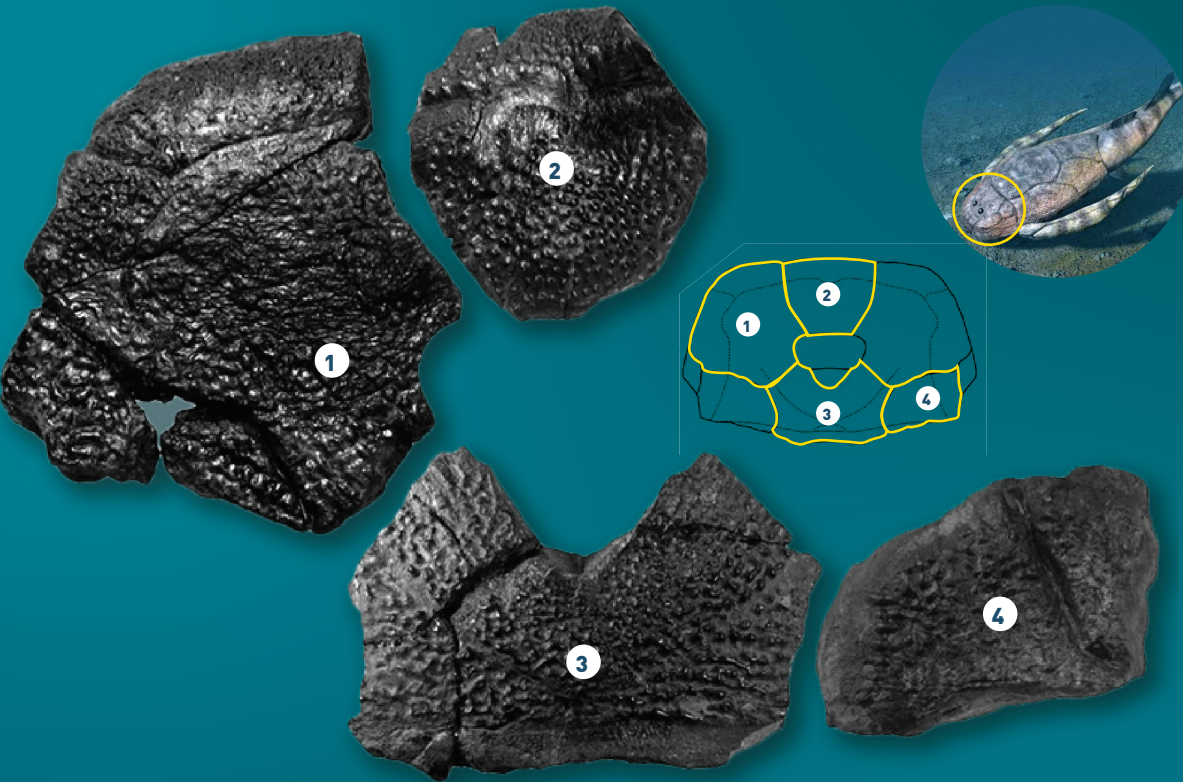
For more about Drexel's research enterprise, see EXEL Magazine at [exelmagazine.org](http://exelmagazine.org).

Research

PREHISTORIC LIFE

INTRODUCING B. REX.

You've heard of *T. rex*. But what about *B. rex*? Scientists from the Academy of Natural Sciences were part of a team that described *Bothriolepis rex*, a new giant in the group *Antiarchi*, which are extinct fish with external, bony armored plates covering their head, shoulders and front fins. The researchers identified the new fish from fossils first discovered in 2000 on Ellesmere Island in Nunavut, Canada.



BIOMEDICAL ENGINEERING



Gauging Google Glass

In a study recently published in *Frontiers in Human Neuroscience*, a team of Drexel biomedical researchers measured how brains perform while using "smart" eyewear like Google Glass. Using a port-

able functional near-infrared spectroscopy, or fNIRS, device, they measured the brain activity of participants navigating a college campus outdoors in a test of Google Glass vs. Google Maps. Researchers found that users using Google Glass had lower mental workload and trended toward higher situation awareness relative to their peers navigating with Google

Maps on an iPhone.

MEDICINE

Danger is Skin Deep

A study from the College of Medicine shows skin cancer risk for organ transplant recipients — which increases due to the side effects of anti-rejection medications — likely differs between races/ethnicities, representing an important shift in how dermatolo-

gists approach minority patients. Doctors should keep these unique characteristics in mind when examining and counseling nonwhite patients about prevention strategies, says Christina Lee Chung, MD, associate professor of dermatology and the study's principal investigator. "People of color are at decreased risk for skin cancer, they're not *not* at risk," she says.

HOSPITALITY AND SPORT MANAGEMENT



Mismatched Cuisine

Chefs: Avoid creating appetizers that overshadow the main course. A recent study led by Drexel food science researcher Jacob Lahne found that a main course may be negatively affected by an appetizer that is "too good."

But, by actively varying dishes by cuisine type (e.g. Italian, Thai, etc.), a negative response to the overall meal could improve, or be avoided altogether.

BIOMEDICAL ENGINEERING



The Mighty Macrophage

A team led by Kara Spiller, an associate professor in

the School of Biomedical Engineering, Science and Health Systems, is studying how inflammatory cells called macrophages can be harnessed to promote bone re-growth and tissue repair. They found that a new type of ceramic scaffold causes inflammatory cells to behave in a way that is more regenerative than scaffolds that

are currently used clinically. The image to the left shows a microscopic view of macrophages attached to a ceramic scaffold after six days. "The macrophages degrade the scaffolds and shape them into something new," Spiller says. "And that's the Holy Grail of tissue engineering — that you make a scaffold that replaces itself with healthy tissue."





Galanos dressed Marilyn Monroe, Judy Garland, Diana Ross and Jacqueline Kennedy, to name a few.



Raymond G. Perelman's donation to the Center for Jewish Life is his second major gift to Drexel. In 2012, he pledged \$5 million for the creation of a public plaza adjacent to Main Building.



"The goal is to ensure that every child born in the Promise Zone has what he or she needs to be successful in the innovation economy growing in their own backyard."  
— President John Fry

COLLECTIONS

# Famed Designer Donates Collection

Drexel's Robert and Penny Fox Historic Costume Collection is the new home for a collection of more than 700 couture-level ensembles by designer James G. Galanos, dubbed by *The New York Times* the "master of chiffon." In his heyday in the '50s and '60s, Galanos dressed a veritable "who's who" of fashion, from Hollywood royalty (Rosalind Russell, Marilyn Monroe) to the social elite (Betsy Bloomingdale, Leonore Annenberg, Iris Cantor). He was known for fine materials, impeccable garment construction and most famously for designing inauguration gowns for former First Lady Nancy Reagan. An undisputed master of 20th-century fashion, Galanos' career spanned five decades and earned him countless industry accolades.

The gift from the James G. Galanos Foundation will form the James G. Galanos Archive, a repository for the designer's work that will provide students, scholars and the greater public unparalleled access to the Galanos legacy.

This gift came on the heels of a \$2 million pledge from the collection's namesakes, Robert and Penny Fox, earlier last year. The gift was pledged toward the establishment of a Center for Historic Costume Exhibition and Research, which will include a permanent gallery to display items from the collection.



James Galanos evening gown, gift of Mrs. N.S. Burpulis, 1959

FUNDRAISING

# Thank You for a Great Year

Drexel surpassed its fundraising goal for fiscal year 2016 by raising \$120.7 million in outright gifts and pledges, which exceeded the University's goal by \$700,000 and beat the previous year's total by \$5.3 million.

This marks the third year in a row of achieving a record-breaking fundraising total.

The largest gift to the University during the fiscal year came from longtime philanthropists and humanitarians Dana (LeBow '83) and David Dornsife. The couple donated \$45 million to the School of Public Health, which was named in their honor.

Another generous \$6 million gift from philanthropist Raymond G. Perelman made possible the Perelman Center for Jewish Life (see story on opposite page).

Renovations have also begun on the Korman Center in the heart of Drexel's campus, after an \$8 million gift from the Hyman Korman Family Foundation and another \$8 million in matching University funds.

Drexel's finances also remained strong for the fiscal year. The endowment has grown to \$663.4 million, a 23.7 percent increase in just five years.

RANKINGS

# Output Over Input

A new ranking placed Drexel in the top 8 percent of U.S. colleges and universities based on how well students perform after graduation — a measurement where Drexel truly outperforms its peers.

The new ranking is a joint effort by *The Wall Street Journal* and London-based *Times Higher Education* that aims to assess institutions on their students' outcomes rather than on their students' SAT scores and aptitudes going into college. Each school's ranking is based on four categories: what students do after graduation, a university's resources, how well a school engages students, and the overall learning environment and degree of diversity.



DREXEL RANKED IN THE TOP 8 PERCENT OF U.S. COLLEGES AND UNIVERSITIES BASED ON POST-GRADUATION OUTCOMES.

With its unique co-op model and interconnection with civic issues, Drexel has long focused on engagement, diversity and job readiness.

The ranking came not long after Drexel's move on *U.S. News & World Report's* 2017 "Best Colleges" list to No. 96, and 65th overall in value.

CONSTRUCTION

# New Center for Jewish Life Opens



Drexel cut the ribbon on the Raymond G. Perelman Center for Jewish Life, a facility at N. 34th St. made possible with the help of a \$6 million gift from Perelman. It is the first building at Drexel constructed entirely through private philanthropy, and the University's first standalone facility dedicated to Jewish student life.

"We are deeply grateful to the more than 40 donors who gave nearly \$10 million to make this long-awaited vision for a Jewish home at Drexel a reality," says President John Fry. "Although it took many hands to make this transformative project possible, we wouldn't be here without the awe-inspiring generosity of Ray Perelman. He has changed the landscape of Philadelphia and has changed our landscape at Drexel."

The building's uniquely symmetrical design — inspired by the shape of a menorah — earned it praise from *Wired.com*, which named it one of "25 masterpieces" in architecture in 2016.



ENGAGEMENT

# Drexel, Philadelphia Win \$30M Promise Grant

Drexel won a multi-million, multi-year Promise Neighborhoods Program Implementation Grant that will benefit West Philadelphia residents and seven public schools near Drexel's campus.

Philadelphia is only one of six awardees to receive the U.S. Department of Education grant, which provides up to \$30 million over five years per locality. In year one, Philadelphia will receive \$6 million for a "cradle-to-career" effort, which includes initiatives that expand early literacy and early science efforts in local child care and pre-K programs; enhance K-12 instruction; empower parents to advocate for their children's learning; and improve access to education and job training for residents of a neighborhood zone that stretches from the Schuylkill River to 48th Street, and from Girard Avenue to Sansom Street.

Drexel was the lead applicant of the grant, partnering with the City of Philadelphia, the School District of Philadelphia and several other area groups and nonprofits. As the lead agency, Drexel will help coordinate the initiative and share the expertise of its School of Education, Dornsife School of Public Health and Dornsife Center for Neighborhood Partnerships.



Adam Fontecchio,  
inventor

## Seven Characters

INNOVATION

### THE STORY OF NO.

1 2 / 7 2 1 1 6 1

It can take an inventor years to receive an official U.S. patent, usually represented by a seven-digit number (patents pending like this one have eight). But the full story behind most patents is much longer. Adam Fontecchio's long-time love of technology and art has come together in a one-inch-by-one-inch square that fits in the palm of his hand. This tiny stack of thin films opens a game-changing world of **possibilities for cameras and smartphones**, and this is the story of how it came to be. —Katie Clark

Imagine you could snap a photo with your smartphone in the grocery store to gauge the ripeness of a cantaloupe or the freshness of meat. Imagine an airport security officer using a camera to detect if someone has handled explosives or a soldier equipped with special rifle sites that "see" through camouflage to **zero** in on a target.

The reality is, this technology already exists. But Drexel's Adam Fontecchio and his team have found a way to compress it into the size of a postage stamp. He calls the invention "electrically tunable filters for hyperspectral imaging," and it could soon be inside cameras and smartphones everywhere.

"I'm hoping within the next **24** months," says Fontecchio, an engineering professor and director of the Drexel Nanophotonics+ Lab.

Standard cameras and smartphones capture and display only red, green and blue, the **three** colors visible to the human eye. Fontecchio's filters — which consist of stacks of very thin films — allow one to see in between and beyond those colors, and even to detect chemicals.

"This system uses polymer liquid crystal composite mate-

**APPLICATION**  
The filters are made with polymer liquid crystal composite materials that can reflect a specific wavelength



rials, and it's different than any other liquid crystal device on the market," Fontecchio says. "We designed a structure inside our films that acts like a mirror; it reflects a particular wavelength of light. We don't use a backlight; we use whatever light is in the room. And so we are no longer locked to red, green and blue — we can make any wavelength in the spectrum."

The possibilities are tremendous. For example, a surveillance system on a satellite scanning the surface of a jungle will have difficulty detecting military equipment camouflaged under green foliage. But Fontecchio's finer-resolution filters can be built at the exact wavelength of chlorophyll. "We can take an image, flip on the layer that

filters out chlorophyll, and now the tank is right there," he explains.

The filters' chemical analysis applications are particularly exciting, Fontecchio says. "By taking a sequence of images at all these other wavelengths in the spectrum, you can detect a material's chemical optical signature and start to see things that aren't visible to the naked eye."

Fontecchio and his team didn't invent the concept of hyperspectral imaging, which has been around for about **20** years. But most devices are large. "Our filters are very thin — typically **10** microns thick — which means if we want to make **40** layers of different wavelengths, we can do that in less than **one** millimeter," he says. Perfect

for today's wearable devices.

Fontecchio has spent the past **10** years perfecting the technology with more than **\$10 million** in support from the Department of the Army, the Department of Energy, NASA, the National Science Foundation and private industry. He has an entire portfolio of patents pending and he'll soon be the CTO of DragonSpectral, a company that will launch this year in partnership with Drexel's Office of Technology Commercialization.

He's ready for the next step, and it's going to be big.

"I'm so excited about the applications for this technology that I haven't even thought of yet," he says. "Once this technology gets out there, it'll just explode."

JEFF FUSCO

CROSSWALK

BRIEFS



NEW HIRES

## Comings and Goings

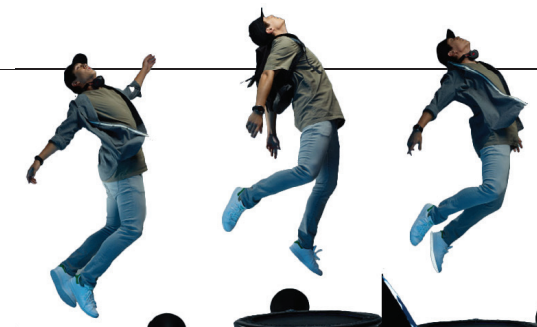
Drexel recently welcomed two new deans and will soon bid farewell to a CEO.

In January, Drexel's Thomas R. Kline School of Law named Daniel M. Filler, JD (pictured) as its new dean, following the retirement of founding dean Roger Dennis, JD. Filler has previously served as the Kline School's senior associate dean for academic and faculty affairs and, as an inaugural faculty member, has helped with the formative development of the school, which just recently celebrated 10 years. In this new leadership role, Filler brings a wealth of legal practice experience, in addition to 18 years in teaching.

In February, Paul W. Brandt-Rauf, MD, DrPH, ScD, joined Drexel as the new dean of the School of Biomedical Engineering, Science and Health Systems. One of the nation's leading occupational and environmental medicine scholars, Brandt-Rauf came to Drexel from the School of Public Health at the University of Illinois in Chicago, where he served as dean since 2008. His wife, Sherry, is now a teaching professor in the Dornsife School of Public Health.

This summer George W. Gephart Jr. will retire after six years as president and CEO of the Academy of Natural Sciences of Drexel University. Gephart, a long-time Philadelphia-area business and nonprofit leader, worked with President John Fry to combine Drexel and the Academy, uniting two of Philadelphia's most respected institutions.

Drexel dancers jumped on trampolines to create the images photographer Timothy Saccenti captured for Drexel's new co-op brand campaign.



CO-OP



## Ambition Can't Wait

You may have seen the billboards and the wraps on buses and bus stops or the ads in major publications such as *The Wall Street Journal*: Drexel is getting the word out about its unique co-op program. In November, the University launched a new advertising campaign — called "Ambition Can't Wait" — across the region and the country to publicize the pace, energy and experiential emphasis of Drexel's special model of education. Nicole Deroux '18, pictured, was one of five Drexel students hired to pose for the campaign's arresting imagery.



## MARINE BIOLOGY

# Art of the Abyss

*In the 1800s, the scientific study of marine life depended on life-like, glass-blown models created by master artisans Leopold and Rudolph Blaschka — and today Drexel is one of only a handful of universities with a collection of the delicate, beautiful Blaschka originals. By Katie Clark*

The scientists of the 19th century had a quandary. How do you preserve exceedingly fragile and perishable aquatic specimens like sea anemone for long-term study? Preservation in alcohol was one solution, but that robbed the delicate creatures of their color and form, and if allowed to dry out they become little more than raisins.

The answer arrived in the form of father-and-son artisans Leopold and Rudolph Blaschka, two master glassworkers who parlayed their expertise as jewelers into creating extraordinarily detailed and accurate glass reproductions of scientific specimens for museums and research organizations. Working from Dresden over a 30-year period, the pair produced more than 700 models, each made to order and sold through dealers like Ward's Natural Science Establishment of Rochester, New York.

In 1879, Academy scientist Joseph Leidy wrote in the *Proceedings of the Academy of Natural Sciences* that the Blaschka models are “remarkable for their accuracy and beauty...They represent soft and delicate forms which cannot be satisfactorily preserved, and others too minute to be examined with the naked eye. Moreover, their price is so moderate, that it is to be hoped that the Academy may make early provision to obtain a series.” Leidy placed an order that same year.

Unfortunately for the fragile figurines, preserving them intact for many generations is difficult. Due to poor storage conditions and the delicacy of the materials, the Academy's collection of Blaschka glass has deteriorated over time. Glass experts have had great success restoring these materials and Academy archivists hope to someday embark on a similar conservation project for its own Blaschka collection.

“Unfortunately, the Blaschkas don't come out much anymore,” says Jennifer Vess, the Academy's Brooke Dolan Archivist. “Some of the more complex pieces have been damaged. We would very much like to have those conserved so they can come out on display more often.”

A soft coral in the family  
*Alcyoniidae*

The specimens in the Academy's glass invertebrate collection, numbering just under 50 pieces, were mostly purchased from Ward's Natural Science Establishment in the late 1870s.



Leopard slug



Sea anemone



An Argonaut, also known  
as a pelagic octopus



Sea anemone



# Show and Tell

CO-OP PROGRAM

## RICK TREDINNICK SENIOR, MECHANICAL ENGINEERING

Every year, more than 5,700 students discover their careers through the Drexel Co-op program — a signature model of education that balances classroom theory with paid job experience within a buzzing network of more than 1,700 co-op employers in 51 countries. What does a Drexel co-op look like? In this regular feature, we ask a student fresh off his most recent co-op to show us. — *Katie Clark*

### THE CO-OP

My third and final co-op for the BS/MS program in mechanical engineering was as a reliability and inspection engineer for the Paulsboro Refining Co. in Paulsboro, New Jersey. I helped to maintain equipment in the refinery, like tanks, heat exchangers, vessels, towers — anything in the refinery that is not moving. When things go “Snap, crackle, pop,” we fix it. And in a refinery, pretty much everything needs fixing. Part of the job takes place in the office, making sure the parts we need to make repairs are up to the specifications set by the American Society of Mechanical Engineers. The other part is in the refinery, checking the equipment for cracks or leaks.

### THE TAKEAWAY

I learned so much about skilled labor on the job, things I couldn’t learn in a classroom. I also didn’t know a thing about the refining industry before this experience. I knew that oil is used everywhere, but I wanted to know where it came from, I wanted to get the nose and the tail of the industry. That’s what’s great about co-op at Drexel. You get to see what you like and don’t like. You get a look into your future. I get to work with these people and say “Hey, that could be me.” I get a look at the hours, the pay, the overtime, and are these workers happy? Co-op is how you get to see the engineer working 40–50 hours a week and what they are doing with their Drexel degree.

*Reliability and inspection engineer for the Paulsboro Refining Co.*



*H<sub>2</sub>S monitor*

*walkie-talkie*

*flame-retardant Nomex suit*

*safety goggles*

### THE OBJECTS

I’m holding a walkie-talkie. Everyone uses the radio in the refinery to communicate the work that’s being done and if anything is going wrong. And for safety reasons; they really take safety seriously at the refinery. That’s why I have the safety goggles, a hard hat (not pictured) and the H<sub>2</sub>S monitor on my collar. Everyone has to wear the monitor at all times; since part of the oil refining process is stripping the sulfur from the oil, we have to pump it with hydrogen, and that makes hydrogen sulfide gas, which can asphyxiate you. If the H<sub>2</sub>S is too high, the monitor will vibrate and sound an alarm and you have to immediately leave the area. And lastly, this is a flame-retardant Nomex suit, which could save my life even though it kind of makes me look like a NASCAR driver or a gas station attendant.

JEFF FUSCO



## ONCE A DRAGON ALWAYS A DRAGON

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Do you remember how proud you felt the day you graduated from Drexel? Have you been thinking about what it will take to continue to advance your career? There has never been a better time to continue your Drexel journey and we can’t wait to welcome you back. Drexel alumni and their immediate family members receive a 15-30% tuition savings on select online programs.

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FROM THE DAC

SWIMMING

# Need for Speed

*The first stop on Rachel Bernhardt's journey was to make Drexel history as a top swimmer. From there, she headed to the U.S. Olympic trials. Next up? Olympics 2020. By Jared Axelrod*

Senior Rachel Bernhardt seems like she can get comfortable anywhere. But there's a fever underneath that relaxed demeanor, a hunger for the win. Her intense competitive drive and impressive skill in the water made her the first Drexel swimmer from either the male or female teams to earn a place at the NCAA Division I Swimming and Diving Championships last spring. That accomplishment took her to the 2016 U.S. Olympic trials in June. And the butterflies are already swarming in her gut when she thinks about Olympics 2020.

She's going to go for it.

Bernhardt started swimming competitively later than many of her peers, which she believes gives her an edge.

"Usually people start at 5," Bernhardt says. "I started in seventh grade. Which is why I feel like I have so much more in the tank."

"The exciting thing is she's continuing to drop time and improve," says Coach Adam Braun. "She has a ton more potential, in terms of training and transitioning that to racing. If she sticks with it, after she's done swimming for Drexel, I don't see any reason that she wouldn't have a shot at the 2020 Olympic trials."

During her junior year, Bernhardt set new school records at the CAA Swimming Championships in February 2016 and earned the first two gold medals for the Drexel women's swimming program. Her time in the 100-yard breaststroke was 1:00.65 and her 200-yard breaststroke time was 2:10.89, beating her previous time in the 100-yard by half a second and a marked improvement in the 200-yard.

More than any other competitor, the swimmer she was most focused on beating was who she was last season. While qualifying for the NCAA is a great milestone, Bernhardt's main goal was to be significantly faster than her previous time.

Her performance at the NCAAs qualified her for her second U.S. Olympic Trial event as she notched a 2:32.70 in the long course 200 breaststroke. Earlier in the season, Bernhardt qualified for the trials in the 100 breaststroke at the Phillips 66 National Championships in San Antonio, Texas, with a time of 1:10.46.

"At the trials, I was super excited, but it was definitely nerve-wracking," she says. "You are surrounded by the absolute best swimmers. It was very intimidating. I just went in and tried to do my best."

And she did get a "best" that day: her fastest time ever in the 100 breaststroke. At 1:10.27, she placed first overall in her heat of 10 swimmers. She lowered her time by 19 hundredths of a second from her qualifying time of 1:10.46.

"I love swimming," Bernhardt says. "I love being in the pool; after college I know I'm not ready to give it up. So I'm going to keep swimming."

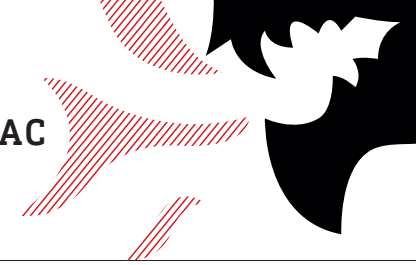
Until she graduates this summer, though, Bernhardt hopes to leave behind a legacy.

"Hopefully I just paved a path for some new freshmen," she says. "I want to end my time at Drexel on a good note, I want to leave something behind that people can remember me by." — *with additional reporting by Katie Clark*

TOMMY LEONARDI







"The big thing we're trying to do is drive culture right now. I'm very proud of how our guys have responded. Every day we're defending the Dragon, and I love it." — Zach Spiker

BASKETBALL

# Defending the Dragon

*Now entrenched in his first season coaching Drexel men's basketball, head coach Zach Spiker is looking inward: Strengthen the team, slow and steady; victory will come.*  
By Mike Unger

As a college basketball player, Zach Spiker hoped he might one day earn a living...coaching.

An undersized point guard whose game, according to his own scouting report, lacked "highlights," Spiker's infatuation with hoops nonetheless flourished.

"I knew I wasn't going to have a long career playing," the Ithaca graduate says. "I spent the last year of my collegiate career studying the game. I wanted to be around athletics one way or another, so the opportunity to go into coaching was something I felt strongly about."

He's recounting this in October, just a few weeks before his debut as leader of Drexel's men's team. So while a portion of his brain is agreeably dribbling down memory lane, most of it is occupied by the same thought that has consumed him since he was a budding young coach.

How can I help my team improve?

With just three seniors on a team that won six games a year ago, the Dragons have plenty of potential for improvement. To tap into it, Director of Athletics Eric Zillmer chose the 40-year-old Spiker, a basketball junkie who is the only head coach in the history of the U.S. Military Academy (Army) to win 15 or more games for four straight seasons. Spiker's 102 victories at storied West Point tied him with the legendary Bob Knight on the school's all-time list — and caught Zillmer's attention.

"Zach Spiker is an exceptional coach and a person of integrity," Zillmer says. "He has unbelievable energy and will bring an excitement to the Drexel fan base. His personality and playing style fit the aspirations of our University as creative, fast-paced and innovative."

Just how he'll do that is perpetually on the new coach's mind.

"Big picture, we have a really good idea of what we want to do here," Spiker says. "We want to get up and down the court and appeal to the young men in the city of Philadelphia, playing with tempo and great pace, moving the basketball. Defensively, getting after people full court, I think

that's something the DAC Pack would love to watch. But the roster is in transition. You've got to coach every team and every season differently."

Spiker grew up in the football hotbed of Morgantown, West Virginia, where his father, John, was WVU's longtime athletic trainer. As a kid he loved all team sports, but despite being 5-foot-10, it was basketball that stuck. Since his dream team, Syracuse, was unrealistic, he wound up at Division III Ithaca, where he played ball and earned a bachelor's in communications. He thought his future was in sports broadcasting, but toward the end of his playing days he was bitten by the coaching bug.

After graduating, he joined coach Gregg Marshall's staff at Winthrop. It was hardly glamorous.

"We made a position for him, and I don't know what he got other than a little stipend," says Marshall, now head coach at Wichita State. "He came in expecting nothing and added value. He went out and worked odd jobs in the mornings and helped us in the afternoons. What he does as a coach is the same thing he does in his personal life — he develops relationships. He is very positive, has a ton of energy and obviously he is a tremendous young coach. He can translate the game to his players, and I am sure they love playing for him."

Spiker later worked as an assistant at West Virginia (where he earned a master's in sport management and met his wife, Jenn) and Cornell before being hired to lead Army's program.

"The academy stands for so many great things about our country. I thought it would be an honor just to interview for the position," Spiker says. "Coaching at West Point makes you a better, more efficient coach because the access can be limited. You don't have time to do drill after drill and have a long practice."

That's exactly what he's doing at Drexel, where his goal is daily progress. He doesn't get caught up in what other teams are doing, and doesn't want his players to, either. The focus, he believes, should be inward.





*Five years.  
That's 200 stories.*

*Stories that show there really are no bounds to where a Drexel degree can take you. In this fifth edition of the 40 Under 40, we introduce you to a pair of brothers who distill unique liquors, an expert in neurology who brings us closer to understanding Alzheimer's disease, a doctor who helps give something back to women with breast cancer. Passionate lawyers, star chefs, sharp entrepreneurs. Every path is unique but all carry a little piece of Drexel to their various corners of the world where they're making a difference.*





## Ronica Cleary

33

*The presidential race last year was a gift for Ronica Cleary, a Fox Network political reporter in the nation's capital.*

The Drexel experience touches every aspect of Ronica Cleary's life, personally and professionally.

"My father got his master's degree here, so I'm a legacy, and a graduate," she says. "I've been a student, an employee and an adjunct professor. Drexel has always been a positive force in my life. The connection is just undeniable." She leveraged her 2007 master's degree in public communication to become a broadcast reporter in a string of large, competitive markets. She spent three years at "Chasing News," a nightly news program that airs on Fox 5 NYC, Fox 29 PHL and My9NJ, before moving on to her present job, covering politics for Fox DC 5.

For Cleary, the contentious and quirky presidential race gave her the chance to engage in what she calls the most challenging and also the most satisfying aspect of her work: Taking vast volumes of jumbled information and helping to make sense of it.

"I get to go to these events that politicians hold that may be an hour or 90 minutes long, and then I have

**2**  
**NO.**

**Alison Carroll**  
**29**

**BS BUSINESS  
ADMINISTRATION  
AND MARKETING  
'10**

**OWNER,  
WONDER VALLEY**

**My Greatest Accomplishment**  
Building a successful health and home goods brand from the ground up. Our products are now being featured in some of the best stores internationally. Wonder Valley's olive oil is certified 100 percent extra virgin crafted from a proprietary blend of Taggiasca, Arbequina and rare Ascolano olives hand-picked from the groves of Northern California. We are designing, producing, marketing and selling — all while based out of the Mojave Desert.

**How Drexel Helped**  
My undergraduate degree from LeBow helped me successfully market Wonder Valley. The three co-op experiences gave me the confidence to tackle anything, headfirst.

**Where I'll Be In Five Years**  
Continuing to grow Wonder Valley on a global scale.

the responsibility to decide what the viewer hears in a three-minute story," she says. "As I have looked at what other reporters choose to include or not include, it has really opened my eyes to the power of journalism and the importance of doing it well."

"Doing it well" means more than just being factually correct. As an occasional adjunct professor in Drexel's Department of Communication in the College of Arts and Sciences, she tells her students that reporters need to constantly challenge themselves, to ask whether they are being as fair and evenhanded as possible in their coverage.

"It is about acknowledging that you bring things to the table — we all do. It means constantly reflecting on your work," she says. "It's very easy to just assume that you are being as unbiased as possible. But you need to constantly evaluate your work, to get feedback from people you trust. Anyone who thinks they are perfect at this is fooling themselves."

Even after the election ended, at a time when many Americans were experiencing a degree of political fatigue, Cleary's enthusiasm has remained undimmed.

"I love politics!" she says. "It makes you a part of the conversation about the future. Here I am not just watching it but contributing to that conversation, I am adding to the discourse. That is a dream come true and it's a tremendous honor." — *Adam Stone*



**4**  
**NO.**

**Wesley Rowlands**  
**31**

**BS BUSINESS  
ADMINISTRATION  
'09**

**FOUNDER AND  
CEO, NATIONAL  
YOUTH MENTOR  
ACADEMY**

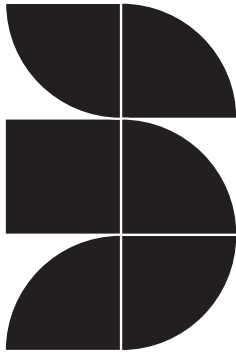
**My Greatest Accomplishment**  
Becoming a best-selling author ("How to Make \$100K Out of College," 2016), starting a business and becoming a partner at an investment management firm. That's three things, but everything is interconnected in business and I could not have accomplished one of them if it wasn't for all of them.

**How Drexel Helped**  
Outside of all my mom's sacrifices and support in raising me, Drexel was the No. 1 reason for the success I have had in business. The co-op program, in combination with Drexel's outstanding professors, like Scott Warnock, PhD; Diana Sandberg; Ed Nelling, PhD; Amy Kratchman; and Peter Amato, PhD, make the University world-class. And I mean that literally — I honestly believe that a Drexel-trained student is, by far, the best-equipped candidate for today's complex and innovative workforce.

**Where I'll Be In Five Years**  
My team and I will have built a media company that provides education, products and services within all of the domains that I am passionate about. Above all else, my No. 1 goal is to provide for my family, especially my mom, Debbie, who raised me as a single mom, and grandmom Rose, who gave me everything she could to ensure I was on the right track. I owe everything to them.



NUMBER THREE



29

**BS BIOMEDICAL  
ENGINEERING '11**

**FOUNDER AND CEO,  
BIOAESTHETICS; PHD  
CANDIDATE, TULANE  
UNIVERSITY**

## Nicholas Pashos

**My Greatest Accomplishment**

Taking the work I have done in an academic lab and creating a spinout company, BioAesthetics, a startup regenerative medicine company focused on developing nipple-areolar complex grafts for breast reconstruction, with a target population of women who have undergone mastectomies due to breast cancer. Having an idea, prototyping it, then attempting to commercialize the product is an exciting process, but developing a product that could potentially impact breast cancer survivors is the most rewarding accomplishment.

**How Drexel Helped**

By teaching product development through the curriculum and senior design. I was fortunate enough and extremely grateful to have my first research experience in the laboratory of Margaret Wheatley, PhD, during my freshman summer through the Pennoni Honors College Star Scholars Program. I learned how to take an idea and see if it had potential. I was always encouraged to take smart risks, and to always think translationally. My mentors and advisers relentlessly supported me and were always there, whether I succeeded or failed, to help me plan the next steps — that still holds true five-plus years after graduation.

**Where I'll Be In Five Years**

I have learned to plan ahead but to take it one day at a time. In five years, I hope to still be working hard and enjoying it.





# Marat Mamedov

33

BS INFORMATION  
 SYSTEMS  
 '07

NUMBER SIX

# Vlad Mamedov

39

BS INFORMATION  
 SYSTEMS  
 '01

NUMBER FIVE

*Vlad and Marat Mamedov traded in their golden tickets with top consulting firms to craft liquors, European-style brandies and unusual vegetable specialty drinks for American spirits enthusiasts.*

Brothers Marat and Vlad Mamedov both attended Drexel, both studied information systems and both landed jobs post-graduation as consultants for top consulting firms. Their path promised financial rewards and security, but something was lacking. They craved a life with a little more, so to speak, spirit.

So when they were ready for a career change, the Armenian brothers, along with Marat's Hungarian wife Zsuzsa, opened a craft-distillery. In a nod to their corporate backgrounds, they named themselves Boardroom Spirits and began distilling in February 2016.

Their special contribution to the market is their own fresh spin on Hungarian *pálinka*, an aromatic and flavorful fruit brandy popular across Eastern Europe but not widely known to American drinkers.

"We saw a chance to do something with personal significance, because the product connected to our Armenian and Zsuzsa's Hungarian brandy-distilling heritages," Marat says.

Unlike distilleries that focus on artisan methods, Boardroom emphasizes technology in its manufacturing process. Using leading-edge equipment, their distiller can access the still with an internet-connected laptop from anywhere in the world, providing insights and data at every stage of distillation.

"Having gone to Drexel, the core value of ingenuity and innovation was important to both of us in our business model," Marat says. "We see automation as a transformative opportunity in our field, as it helps to make the production safer and more efficient, which translates to a more consistent and precise spirit."

The company's Lansdale location, with its gleaming stills, serves as the North American showroom for Hagyo Distilling, a Hungarian still manufacturer, to market equipment to other producers.

Last fall, Boardroom Spirits launched B, a vegetable *eau de vie* made entirely from red beets. The beets are ground, fermented and distilled into a spirit, rather than added later as an infusion. The result is a clear liquor that smells uncannily fresh, as if each glass contained beets plucked from the farm.

It is the first release of the company's "Periodic Table of Spirits," a line of fruit and vegetable distillates (A for Apple, C for Carrot, Cr for Celery Root, etc.). The spirits can be enjoyed as either aperitifs or digestifs, and they're already being served in several bars and restaurants in the Philadelphia region.

Given that two thirds of the company's co-founders studied at Drexel, Boardroom has remained actively engaged with its alma mater from day one. Fellow Drexel alumni help with accounting, legal and facility services. Drexel friends have participated in focus groups and helped spread the word about the brand.

"In that diverse environment we were able to learn about who our future customers would be," Vlad says. "We saw that there was a gap in the market and now we're filling it." — *Elisa Ludwig*



NUMBER  
 SEVEN

# Justin Mathews

38

BS GENERAL STUDIES  
 '12

ENTREPRENEUR,  
 MANAGING DIRECTOR,  
 TONIC DESIGN CO.

## My Greatest Accomplishment

I began my first startup with two other co-founders while at Drexel: Karizma Media Solutions. Karizma was one of the first few online marketing agencies in the Philadelphia region at the time, and we successfully merged our company with our largest client five years later. Since then, I've built relationships with some of the smartest, most intelligent and brightest individuals in our city — of that I am most proud. I have contributed countless hours volunteering across the globe and have taught many sessions on entrepreneurship, emerging technologies and relationship building. I have some of the greatest family, friends and colleagues a guy can ask for — without them I wouldn't be as motivated as I am.

## How Drexel Helped

My time at Drexel has essentially shaped my career in many ways, and getting involved in student government, Greek life and co-op gave me a combination of responsibility, integrity and risk-taking skills that I'm not sure I would have received at another school. Being involved in the Undergraduate Student Government Association for all five years, including experience working closely with former Drexel President Constantine Papadakis, gave me business knowledge, intuitions and proficiencies that I still use today.

## Where I'll Be In Five Years

I hope to continue to provide jobs and fuel growth in the city of Philadelphia. Philly is my heart, and positively influencing our youth here to find passions within emerging technologies is going to keep us on the map as a tech hub.

## My Greatest Accomplishment

As a first-generation college student, my greatest accomplishment has been continuing my education to obtain not only a bachelor's degree but, ultimately, my PhD from Harvard. My parents are Caribbean-born immigrants and, although they were not able to attend college, they sacrificed to ensure that my brother and I attended college.

quantitative skills to tackle some of the most pressing public health issues across the United States. My goal is to provide the evidence necessary to reduce health disparities, create a learning environment that prioritizes the need for quantitative skills within an interdisciplinary world, and teach future (bio)statisticians how to use their problem-solving skills to promote change.



# Loni Philip Tabb

36

BS MATH '03,  
 MS MATH '05

ASSISTANT PROFESSOR,  
 DEPARTMENT OF  
 EPIDEMIOLOGY AND  
 BIostatISTICS,  
 DORNSIFE SCHOOL  
 OF PUBLIC HEALTH,  
 DREXEL UNIVERSITY

## How Drexel Helped

By introducing me to the concept of practice-based learning. Through my participation in the co-op program, I not only realized my love for numbers and problem-solving, but the co-op program actually led me back into academia.

## Where I'll Be In Five Years

I will continue to use my





10

NO.

Rachel Mednick

29

BS DESIGN AND MERCHANDISING '09

FOUNDER AND DESIGNER, LUCY & LEO

My Greatest Accomplishment

Opening up my first Lucy & Leo pop-up shop in Manhattan in Bryant Park's Winter Village in 2013. I had just launched my organic children's clothing line and it was the culmination of everything I had envisioned right in front of me. The process of idea to creation is a long one and it was such an amazing feeling to have customers love the products I had worked so hard to develop. It was a huge risk but absolutely worth it.

How Drexel Helped

The Fashion Department is amazing and gave me a strong foundation of skills to build upon in the jobs I had after college and now in owning my own business. The co-op program was so valuable, as well as the hands-on experience and class projects. As a business owner I can rely on my skills in construction, merchandising and product assortment that I learned at Drexel.

Where I'll Be In Five Years

In five years I would like to level up my involvement in charity organizations. I hope to start a Lucy & Leo Foundation where I create an outlet for kids to get involved in their communities and give back, pairing older kids who can help make and gather donations with younger kids who are in need.



NUMBER NINE

Priscilla Jimenez

31

JD LAW '11

ASSOCIATE, KLINE & SPECTER

My Greatest Accomplishment

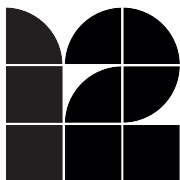
2016 was one of the greatest years of my life. I was selected to be part of the 2017 edition of *Best Lawyers in America*, I was named as a Rising Star by *Super Lawyers*, I was honored as one of "Delaware Valley's Most Influential Latinos" by the newspaper *Impacto* and was honored to be one of the youngest attorneys ever to serve as president of the Hispanic Bar Association of Pennsylvania. Finally, but certainly not least, I was selected to be a part of Drexel's 40 Under 40. It was truly an awesome year.

How Drexel Helped

The Thomas R. Kline School of Law professors and vigorous trial advocacy program trained me to be the trial lawyer that I have become today. The support and constant challenge to think outside the box that I received has been invaluable to me in my day-to-day practice. The Kline School sets students up for success not only during their time as a student but beyond the classroom and graduation as well.

Where I'll Be In Five Years

In five years I hope to be a household name in the Latino community as an advocate for justice and their rights by promoting justice and fairness for all and safeguarding the right to a trial by jury.



Evan Birnholz

33

MPH EPIDEMIOLOGY AND BIOSTATISTICS '08

CROSSWORD CONSTRUCTOR, WASHINGTON POST MAGAZINE

My Greatest Accomplishment

Writing crosswords full-time for the *Washington Post* is a dream job. However, I'd say my best personal accomplishment was the journey I took to get there. Before landing the position with the *Post*, I first had to develop the skill to write puzzles and the confidence that any puzzle I write is going to



be clever and enjoyable. Knowing that I can create something fun for people each week and love doing it is what drove me to pursue puzzles as a career in the first place.

How Drexel Helped

I can't say I imagined while in a public health program that I would end up writing crosswords as a career, but one advantage of a public health education is that you learn to look at problems from many different angles in order to solve them. If you're studying a particular disease, you're examining its potential causes, its risk factors, the groups affected by it, the methods of prevention, and so on. That's a much harder puzzle to solve than the kinds I create. Recognizing new ways of thinking about problems, like the clues you'll see in my crosswords,\* is a key part of my job.

Where I'll Be In Five Years

Still writing crosswords. I hope I'll have published a book or two of my puzzles, and perhaps create new puzzle challenges that no one's thought of yet. You never know.

*\*Editor's Note: Nationwide there are only a handful of people who create crossword puzzles professionally. Drexel Magazine is pleased that one is our alumnus, and to announce that Evan Birnholz will be creating our back-page puzzle as of this edition.*

My Greatest Accomplishment

As an entrepreneur, creating a business that is unlike any other in the Northern Shenandoah Valley of Virginia. In my career in government service, being able to assure the protection of sensitive data.

How Drexel Helped

Drexel's College of Computing & Informatics helped me with the next level of data analytics and knowledge management along with a more in-depth study of human-centered computing. The program also provided a great foundation for my next career advancement by strengthening my capacity to handle challenging environments.

Where I'll Be In Five Years

I plan to have advanced into leadership within my government position while also expanding my LGBTQ community leadership role.

11

NO.

Christy Berghoff

38

MS INFORMATION SYSTEMS '16

CO-OWNER, HIDEAWAY CAFE; PUBLIC KEY INFRA-STRUCTURE PROGRAM MANAGER, DEPARTMENT OF JUSTICE

My Greatest Accomplishment

Matching into neurosurgery.

How Drexel Helped

The College of Medicine provided me with an outstanding fundamental core of clinical and academic skills that enabled me to excel beyond medical school and perform at a very high level throughout my residency and fellowship training. My successes beyond medical school have enabled me to pursue additional clinical and entrepreneurial interests that are helping to innovate the way physicians deliver care in the digital age.

35

MD '09

DIRECTOR OF VASCULAR NEUROSURGERY, SPECTRUM HEALTH MEDICAL GROUP

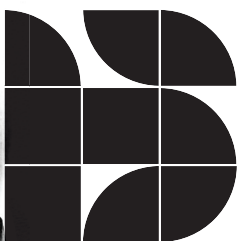
Where I'll Be In Five Years

I hope to continue my work as a cerebrovascular and endovascular neurosurgeon, and continue my collaborations with industry to advance and innovate the way physicians interact with and care for patients. I additionally hope to pursue an MBA and remain actively engaged as a physician leader.

Justin A. Singer



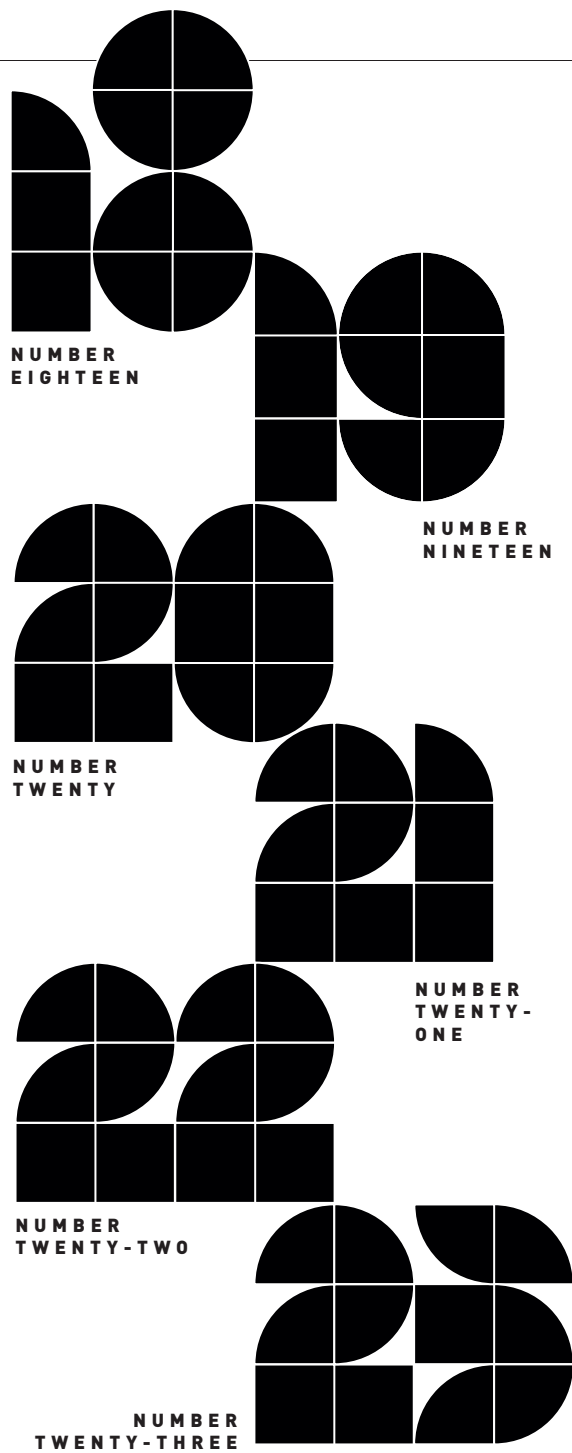
NUMBER THIRTEEN











*You don't often see brand consulting firms setting up a shop with wood lathes and welding irons, but the six engineers running Oat Foundry have ideas so original, they have to be built from scratch.*

It began with a soft pretzel vending machine.

When they were studying mechanical engineering at Drexel, Luc Tenthorey, Mark Kuhn, Sean Rossiter, John Halko, Mike Courtney and James Vescio were matched for a “senior design” class project to create a proof of concept for a novel way to dispense Philly Pretzel Factory’s famous street snack. The team soon discovered that if solving business problems with creative solutions was a calling, then working collaboratively was practically their destiny.

“We fell in love with the idea of making cool things and it became obvious that there was a career path there,” Kuhn says.

After they graduated in June 2013, the group created Oat Foundry, a

design and fabrication collective, initially offering 3-D printing services.

“We knew we were good at design, but we had a lot to learn about building a business and gaining the tools associated with that,” Kuhn says.

Fortunately, their Drexel education gave them confidence to tackle unfamiliar business problems. “The greatest tool an engineer can have in his belt is adaptability,” says Tenthorey. “So much of Drexel was learning new things, and learning them quickly.”

Oat Foundry has since expanded to offer product development, architectural fabrication, brand activations and solutions to operational roadblocks for companies. They specialize in custom, often-interactive pieces that communicate the personality of a brand through unexpected

JEFF FUSCO



**Luc Tenthorey**

**26**  
BS MECHANICAL  
ENGINEERING  
'13

**Mark Kuhn**

**27**  
BS MECHANICAL  
ENGINEERING  
'13

**Sean Rossiter**

**26**  
BS MECHANICAL  
ENGINEERING  
'13

**John Halko**

**26**  
BS/MS MECHANICAL  
ENGINEERING  
'13

**Mike Courtney**

**26**  
BS MECHANICAL  
ENGINEERING  
'13

**James Vescio**

**27**  
BS MECHANICAL  
ENGINEERING  
'13

materials and technologies. Some projects include a distinctly memorable custom fabrication for Saxbys Coffee; a fully integrated, wi-fi-enabled retro order display for Honeygrow that mimics old-fashioned black-and-white train departure boards; and a reimagined bagel packaging system for the Greater Knead, a local gluten-free bakery.

In another project, they launched a can of La Colombe Draft Latte into the atmosphere with a balloon and four GoPro cameras to capture unbelievable shots of the new coffee drink in near outer space, high enough to see the curvature of the Earth. Recently, Amazon contacted them to ask if they could design and build a car that looked as though it was split in half and slammed into the pavement — just the kind of

unusual challenge they like.

“Every project we do is very different from any others we have done,” says Vescio.

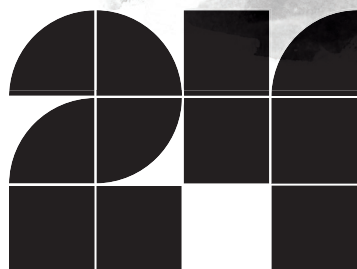
There’s no limit to the amount of “cool things” to be made, but if there’s a company ethos, it’s to keep the fun and shared sense of ownership in the process.

“We were all friends first,” Tenthorey says. “What makes our team strong is the trust we place in each other. Our company culture encourages speaking your mind — we have disagreements all the time, but we always know it’s nothing to do with ego. We all want the best outcome for every project we undertake.” — *Elisa Ludwig*





36



NUMBER TWENTY-FOUR

BS HOSPITALITY  
AND SPORT  
MANAGEMENT '03

EXECUTIVE  
CHEF/PARTNER,  
SABIO ON MAIN  
(PLEASANTON,  
CALIFORNIA)

#### My Greatest Accomplishment

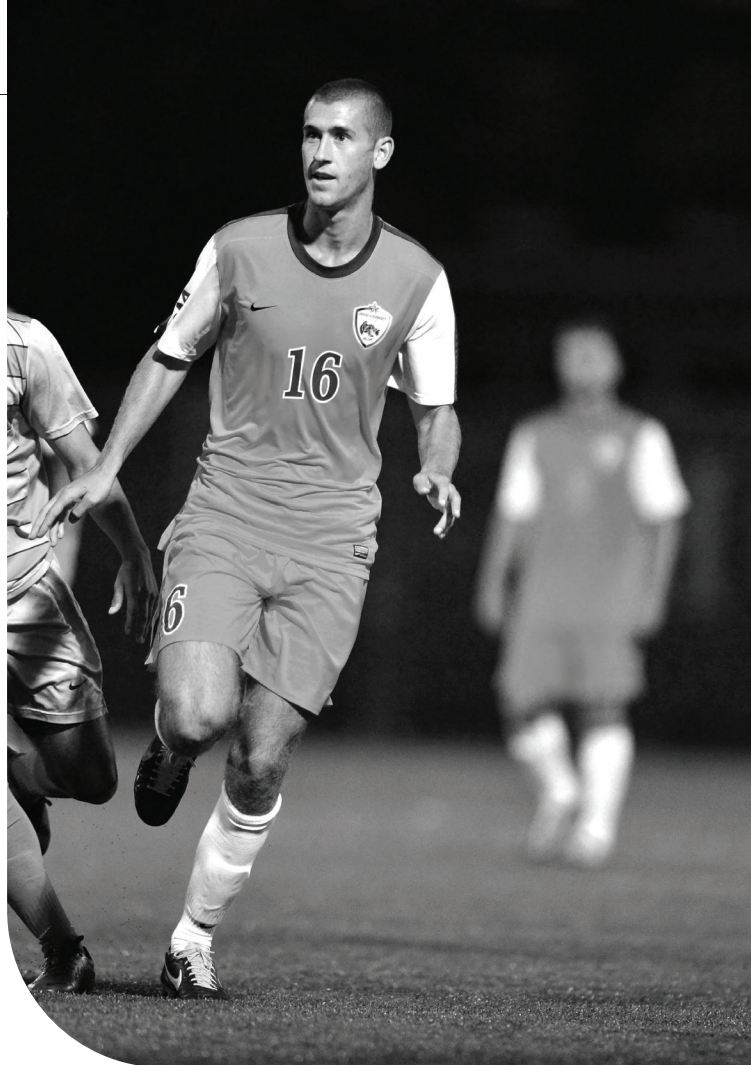
Fulfilling my lifelong dream of playing in Major League Soccer (MLS) in front of all my friends and family.

#### How Drexel Helped

Drexel allowed me the opportunity to continue my soccer career by competing at the Division I level against the best competition in the nation. The coaching staff and my teammates helped push me along in my career in order to reach the stage that I have managed to achieve.

#### Where I'll Be In Five Years

I hope to be a veteran of the Philadelphia Union and of the MLS. I also see myself with the potential to play for the U.S. Men's National Team as long as I keep working hard and continue on my path to success.



## Francis X. Hogan

#### My Greatest Accomplishment

I was able to open two restaurants as executive chef/owner by the age of 35 — one in Philadelphia called 1601 Restaurant and one in the San Francisco Bay area.

#### How Drexel Helped

Drexel prepared me for the real-world experiences one faces running a business. Drexel has a unique blend of theory and practicality in its programs, and I left school prepared to take on any challenge that came at me.

#### Where I'll Be In Five Years

I plan to continue growing new restaurant concepts within our brand philosophy while promoting education and awareness about the flaws in our current food system. The Bay Area has a unique community of chefs, farmers, vintners, ranchers and distillers who are working hard to bring high-quality, local products to the masses in a sustainable and affordable way.

NO.  
25

Frank  
Pina

35

BS BUSINESS  
ADMINISTRATION  
'04

MANAGING  
DIRECTOR/  
PRINCIPAL, THE  
MERCADIEN  
GROUP

#### My Greatest Accomplishment

Amid all of life's demands, being a devoted husband and father is and will likely remain my greatest accomplishment. Although my professional achievements pale in comparison, my unique blend of street smarts and school smarts has paved the way for other successes in business. In my role at Mercadien, I provide investigative insight and financial clarity to high-profile clients in the midst of business controversy, complex disputes and civil and criminal litigation. I'm best known for breaking down complex situations into smaller, more manageable issues by applying a blue-collar approach to solving white-collar problems. Several of my clients and colleagues refer to me as "the Rocky Balboa of the accounting profession" or some variation thereof. I take that as a compliment, I think.

#### How Drexel Helped

My experiences at Drexel proved to be invaluable, from the impactful co-op positions that fueled my career to the influential network I built along the way.

#### Where I'll Be In Five Years

My five-year plan includes a number of personal and professional goals, one of which is to fully integrate digital forensics and e-discovery consulting into my practice area, because changes in technology will continue to impact the way we interact and do business.



26  
NO.

Ken  
Tribbett

24

BS SPORT  
MANAGEMENT '13

PROFESSIONAL  
ATHLETE,  
PHILADELPHIA  
UNION



NUMBER  
TWENTY-SEVEN

## Dawn McDougall

25

*Where does a degree in sustainable urbanism get you? It got Dawn McDougall deeply involved in improving Philadelphia through big data as head of Code for Philly.*

Dawn McDougall has an enviable problem: She has too many good ideas.

"I'm constantly distracted by new ideas," says McDougall (BS sustainable urbanism '15), who propelled herself in two years from member to the first executive director of Code for Philly, a civic-minded hacking collective.

Her solution? Stuff as much as possible into a 24-hour day.

"I don't sleep," says the 25-year-old California transplant to Northern Liberties. "I just have panic attacks all the time. It's great."

Indulge McDougall a bit of gallows humor. She easily spends 30 hours a week on Code for Philly — a *volunteer* gig. More of her time is consumed as a board chair for the networking organization Professional Women's Roundtable. Oh, and she has a 40-hour day job as a product marketing associate at GovDelivery, a digital communications platform for government.

"You learn a lot about time management and boundaries when you're an overly involved person," she says, happily. You also learn to speak a mile a minute, she adds.

But McDougall wouldn't have it any other way. She spends her nights and weekends on strategic plans for Code for Philly and how best to move it from a "primordial ooze," as the grassroots group has been called, to a full-fledged nonprofit. "We're so close," she says.

Under her leadership, the offshoot of Code for America has held six civic tech hackathons that produced at least 25 projects and facilitated 75 datasets available to the public. One standout is CyclePhilly. The app, which won a Code for America Technology Award, tracks a user's biking habits; the aggregated data is used to plan bike lanes. Another project, WhoWonPhilly.com, was designed partly by a city official to provide timely results from the recent elections on a more user-friendly website than the city's official portal.

McDougall has succeeded in this arena even though the sustainable urbanism major has zilch coding background. It is a testament to her status as an influencer and her days at Drexel.

As a custom design major, she learned to pave her own path. "That experience was transformational in how I approach problems," McDougall says. She says she learned to think for herself, rather than spit back fill-in-the-blank answers. "Being able to experiment with ideas, just the welcoming of that in my college career, made me bolder to demand it in my professional career."

McDougall first connected with Code for Philly as part of a senior-year research project to study the public sector app movement. The non-techie was hooked.

"There's something about being surrounded by people using their talents and skills to help not only one another but this cause for greater good, because they care about the place they live," McDougall says. "It really gave me a sense of hope."

Now she continually spreads the gospel (via blogs, Meetups, virtual town halls, etc.) that technology — and perhaps more important, collaboration — can make the world a better place.

"You can make a difference," she says. "You can have influence. You can get things done. You just have to roll up your sleeves and do it."

For McDougall, that's the mission every waking minute. — Lini S. Kadaba





**My Greatest Accomplishment**

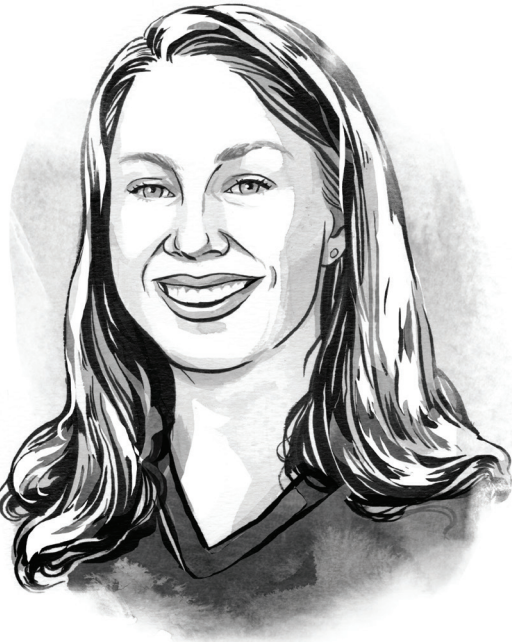
Helping to repair the fractured lives of vulnerable kids is a small-wins line of work, so it's hard to point to a single accomplishment. What makes me proud to be a child advocate is making my clients smile. Finalizing a child's adoption or helping them secure transportation to go to school may only be a small part of my day, but those things are life-changing for my clients. Helping them with their greatest accomplishments is my greatest achievement.

**How Drexel Helped**

I wrote my law school admission essay on my goal of becoming a guardian ad litem (to act legally on behalf of a child), and I can credit Drexel with giving me the tools to make that so. After working for two judges and competing on the moot court team, I felt comfortable in a courtroom and ready to take on real-world clients. Drexel's experiential learning and advocacy opportunities allowed that to happen.

**Where I'll Be In Five Years**

Whether it's policy work or direct representation, I know I will still be working to improve the lives of children and families. From education to juvenile justice, there's so much more work to be done.



NO.  
**28**

**Colleen  
Swim**

**28**

JD LAW '12

EDUCATION  
LAW AND STAFF  
ATTORNEY,  
SUPPORT CENTER  
FOR CHILD  
ADVOCATES

*Jabari Jones took Drexel's commitment to civic engagement to heart and founded a business improvement collaborative in West Philadelphia while still a student.*

At 22, Jabari Jones '16 is young to be a community booster, but he has a plan. Things get better, he says, when people start new businesses.

"Entrepreneurship is the best way we can build a community, especially in West Philadelphia, where there are large percentages of poverty and unemployment," he says. "As new businesses are created and are successful, we see median household incomes rise, we see people take ownership in their community by buying property. We see the entire community improving."

While still at Drexel completing his BS in business administration, Jones began putting those ideas into action by founding the West Philadelphia Corridor Collaborative, a grassroots collaboration that is the largest association of businesses in West Philadelphia.

He has reached out across the community in various ways, in an effort to spur positive activities. He helped forge a partnership between the Baltimore Avenue Business Association and the Lancaster Avenue Business Association to get a trolley on both corridors during the holiday shopping season.

He works with local high school internship programs to encourage entrepreneurship, and he advocates for local real estate development efforts. He's the youngest member of the board for the 30th Street Station District Plan, which aims to develop 175 acres of real estate over the next 35 years. As a member of the 30th Street Station business roundtable, he creates strategies to prioritize local hiring and procurement for small businesses.

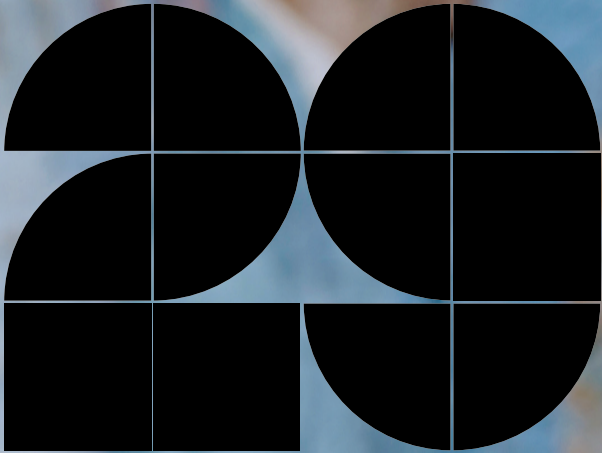
Jones says his enthusiasm for civic improvement was sparked at Drexel, while on his first co-op with West Philadelphia Financial Services Institution, a community empowerment and economic development nonprofit.

"[The co-op] put me in contact with multiple small business owners and we talked about what could be done to better support those entrepreneurs," he says. "After I concluded my first co-op I wrote a report on how to better serve underserved communities."

That effort inspired Jones to submit a proposal to President John Fry suggesting ways the University could better connect with local small businesses. While a student, he worked with senior administrators to develop and implement new policies, including a civic fellowship program for students who wanted to work on community projects.

Effecting change at this level isn't easy. "For folks who want to start businesses there is a lack of organized resources," he says. "There are not a lot of places to go to find mentorship, resources, business plan support. And typically these are people who don't really have the resources to hire consultants."

Despite the hurdles, he says, boosting these budding business owners elevates the whole community. "When you support and strengthen the business owners, everyone draws strength," he says. — Adam Stone



NUMBER TWENTY-NINE

**Jabari Jones**

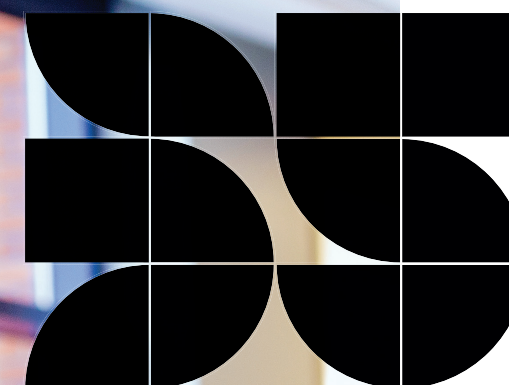
**22**

BS BUSINESS ADMINISTRATION '16









NUMBER  
THIRTY-FIVE

## Connor White

24

where a nice chunk of seed money awaited White and Zerban. The only problem was, they had three days to get there and no money. Visa issues prevented Zerban from traveling, so White turned to his mentors in Drexel's Close School of Entrepreneurship for help, and they eventually sponsored his trip to Sweden.

More support for the startup came from Drexel's Baiada Institute for Entrepreneurship, an on-campus business incubator where the company is housed.

"For a while, we were doing this out of our bedrooms," White recalls. "If we didn't have these resources, things would be a lot more difficult to continue the company."

The team is now edging toward a commercial launch this spring. For around \$250 and an annual membership fee, consumers will be able to attach the Tern Faucet to their kitchen sink and gain live information about their water consumption and when filters need replacement. In January, the team got a vote of confidence from the venture arm of developer Cross Properties, which gave them six-figure seed funding and placed a bulk order for the faucets.

"Tern Faucet is the new standard for faucet filters," White says. "After we launch, I think our competitors will catch up a little bit, but by that time we'll be moving on to the next product." —Katie Clark

*A "smart faucet" idea dreamed up by recent grad Connor White (right) and current student Mo Zerban (left) is about to launch commercially. Drexel made the startup possible, they attest, and was there every step of the way.*

The story behind Connor White and Mohamed Zerban's startup Tern Water has Drexel written all over it.

White, a 2015 product design graduate, met co-owner Mohamed "Mo" Zerban, a senior in mechanical engineering, at a 2013 TEDx event on campus. A year later, a Drexel professor recognized their shared interests and reintroduced them. Both dreamed of starting a company dedicated to sustainability. Through the support of Drexel resources, mentors and advisers, the pair launched Tern Water in 2015 and set their sights on one product: the Tern Faucet. The eco-conscious "smart" faucet provides high-quality purification at the tap, live water analytics on water consumption, and real-time data on filter quality through a smartphone app.

"The idea is to transform a home from being a consumer to producer — producing home vegetation, solar power, etc. We see the Tern systems helping people become more capable of providing their own basic

needs," says White. "But, the first step is knowledge about the impact your house is having."

White said when he and Zerban were deciding on a direction for their company, a noticeable gap in the sustainability industry made their final decision an easy one.

"We had a lot of ideas about wind, solar and heating energy within the home, but we realized there hadn't been a lot of innovation within the water system," White says.

The timing was right, as well.

"This was a year before the Flint Water Crisis, and also during the big California drought," he explains. "We were realizing there was a big opportunity for sustainable water within the home, and we wanted to be the people to start addressing this problem."

Tern Water's philosophy recently earned the co-founders an invitation to join an international incubator — it was thousands of miles away in Sweden,

JEFF FUSCO



## NO. 37

Towfique Raj

34

BS COMPUTER SCIENCE '05

PRINCIPAL INVESTIGATOR, ASSISTANT PROFESSOR, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI, NEW YORK

### My Greatest Accomplishment

I was awarded the prestigious Gates-Cambridge Scholarship from the Bill and Melinda Gates Foundation to pursue a doctoral degree in human genetics at Cambridge University in the United Kingdom.

### How Drexel Helped

Receiving the Gates-Cambridge Scholarship could not have occurred without the many Drexel faculty and fellow students who have shaped my interests, challenged my thinking and opened doors of opportunity. Drexel's co-op program gave me the opportunity to

### My Greatest Accomplishment

Successfully assuming the role as chairman for the Department of Surgery at St. Mary's Hospital, a 371-bed, level-two trauma facility, just three and a half years from completing my surgical training.

### How Drexel Helped

The College of Medicine not only provided an excellent education and helped me get accepted into an excellent orthopaedic residency, but I was able to integrate lessons on the importance of empathy and compassion while delivering medical care.

### Where I'll Be In Five Years

I hope to continue to expand my physician leadership skills and assume higher-level administrative roles while continuing to provide high-quality care to trauma victims in my community.



## NO. 36

David Hardeski

39

MMS (BIOMED) '02, MD '06

CHAIRMAN OF THE DEPARTMENT OF SURGERY AND DIRECTOR OF ORTHOPAEDIC TRAUMA, ST. MARY'S MEDICAL CENTER; PARTNER, MERCER BUCKS ORTHOPAEDICS

do cutting-edge genetics research in a world-class lab at Children's Hospital of Philadelphia.

### Where I'll Be In Five Years

The long-term goal of the research in my lab is to use computational and genetic approaches to characterize the genetic architecture of Alzheimer's disease and other neurodegenerative diseases, with the ultimate goal of finding a cure. It is my hope that in the next five years, we will have better understanding of the cause(s) of neurodegeneration and translate some of our findings into new therapies.



**My Greatest Accomplishment**

My appointment as a dean for the faculty of rehabilitation sciences in the largest university in Jordan seems to be my biggest accomplishment at the management level. Another major accomplishment in my research related to children with cerebral palsy in Jordan is adding to the first-time knowledge related to this population from a rehabilitation perspective. Along with my colleagues, we created a registry for children with cerebral palsy on a population-based level that will be the first in middle- and low-income countries.

**How Drexel Helped**

Drexel was the place where I enjoyed the best days of my life — learning actively from people who are among the best in the rehabilitation sciences world, enjoying cultural experiences with amazing international students on Drexel's campus, learning new sports and languages, surfing Philadelphia streets to find new adventures. I love the people at Drexel. They made me feel as if I am with my own family, and loneliness and homesickness were away when I was enjoying classes and research experiences with them.

**Where I'll Be In Five Years**

I would love to have my research progressing toward improving services provided for children with cerebral palsy in my country. I trust God that hard work pays off and that I will be enjoying more wonderful research and management experiences.

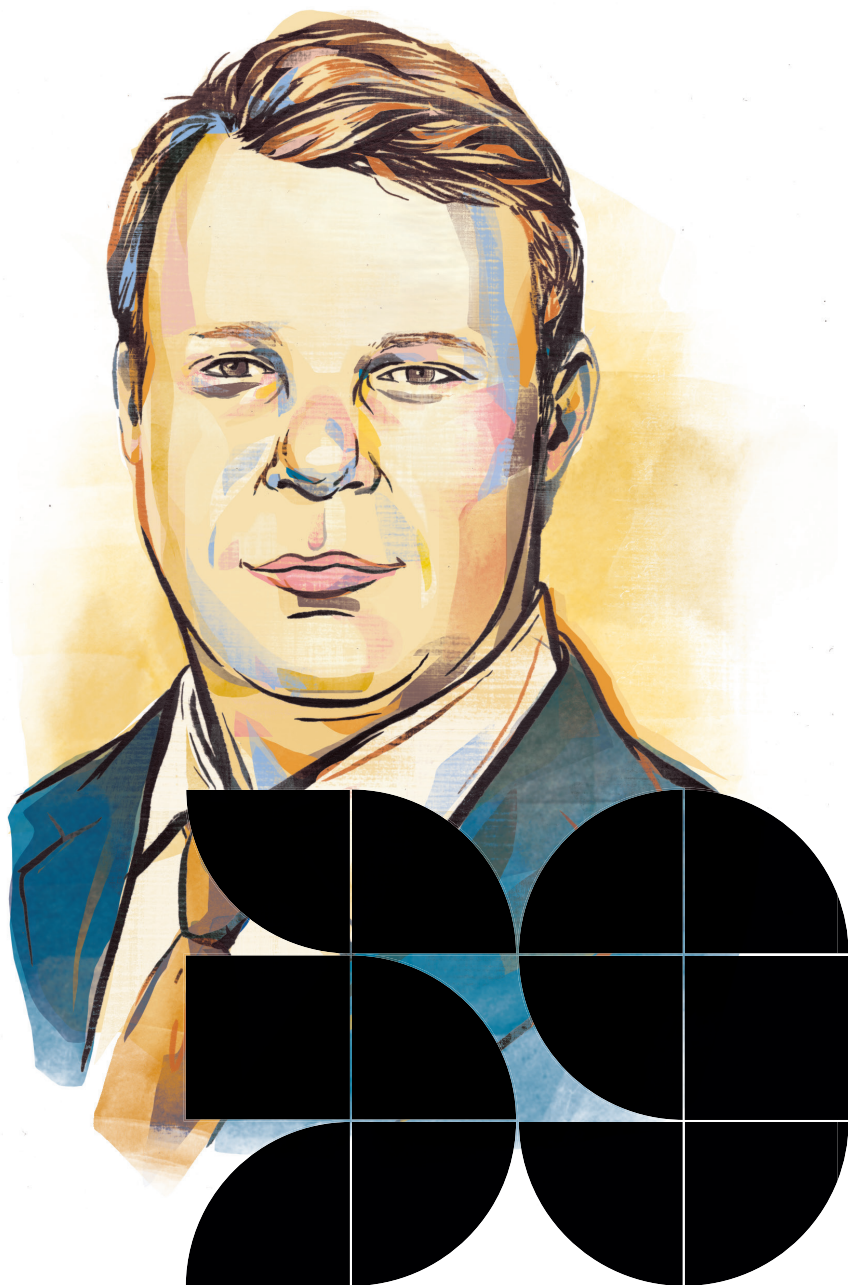
NO.  
38

**Nihad Ali Almasri**

35

PHD  
REHABILITATION  
SERVICES '10

DEAN OF  
SCHOOL OF  
REHABILITATION  
SCIENCES AND  
ASSOCIATE  
PROFESSOR,  
DEPARTMENT OF  
PHYSIOTHERAPY,  
THE UNIVERSITY  
OF JORDAN



NUMBER THIRTY-NINE

# Matthew Pestronk

39

*Matthew Pestronk and his \$1 billion private apartment firm Post Brothers are about to become major landlords in University City, bringing him back to his alma mater where his real estate career began.*

When the siblings who own real estate firm Post Brothers Apartments announced in 2015 that they were buying the 13-story apartment building Garden Court Plaza at 47th and Pine and investing \$250 million in University City housing with the goal of keeping recent grads in the neighborhood, it wasn't just a Philadelphia business making a firm step into the neighborhood. It was a recent grad, who used his co-op at Drexel as the launching point for his career, coming home.

"We were young guys, and people were amazed by our brashness and incredulous as to whether our plans would work," recalls Matthew Pestronk (BS history and politics '01), who founded Post Brothers



NO.  
40

**Christian H. Bijoux**

31

MPH EPIDEMIOLOGY AND  
BIOSTATISTICS '10

MANAGING PARTNER,  
THE BIJOUX GROUP;  
FOUNDER, THE STATE  
OF PUBLIC HEALTH

**My Greatest Accomplishment**

I'd like to think it is yet to come. I've founded a public health and education consulting firm that evaluates policies and programs that directly impact communities by addressing health disparities, environmental health concerns, obesity and a range of other public health concerns; presented on the state of mental and physical health in minority communities at the 2015 National Education Association annual conference; and founded an online resource portal, the State of Public Health, designed to organize public health in the virtual space. Yet, despite these accomplishments, my February 2012 medical mission to Haiti stands out above the rest. To return to my birth country for the first time in 16 years, as a public

health expert, and being able to lecture on public health principles and strategies and empower the medical professionals at Justinian University Hospital was a humbling experience.

**How Drexel Helped**

My time in the MPH program was my "click moment" and without it I do not believe I would be in the professional position I am in today. I owe my understanding of disruptive innovation and problem-solving through a "wicked" lens to my wonderful professors at Drexel.

**Where I'll Be In Five Years**

I hope to still be pushing the boundaries of technological innovation to advance public health initiatives.

Apartments with his brother in 2007. "After a while, people stopped telling me 'you're crazy.'"

The Alexandria, Virginia, native chose Drexel both because of its location in Philadelphia and because he wanted to wrestle. "I committed the day after my recruiting trip because I liked it so much," he says.

He readily admits that he wasn't the best wrestler on the team ("I was primarily a backup," he says, wrestling in the 174-pound weight class) in part because he spent much of his time at Drexel enjoying other things the city and the school had to offer, from being president of Sigma Pi to his classes and his co-op, where he worked for Jon Sarkisian, an executive vice president for global real estate behemoth CBRE-Insignia.

"I just liked it," he says about real estate. "I liked the fact that it was very entrepreneurial and on the fly and creative and analytical."

He zeroed in on the financial side of the process — specifically, raising funds — and after graduating worked in office leasing and real estate acquisition before becoming managing director of the Ackman-Ziff Real Estate Group, where he was the youngest profes-

sional in the firm's history to hold that title.

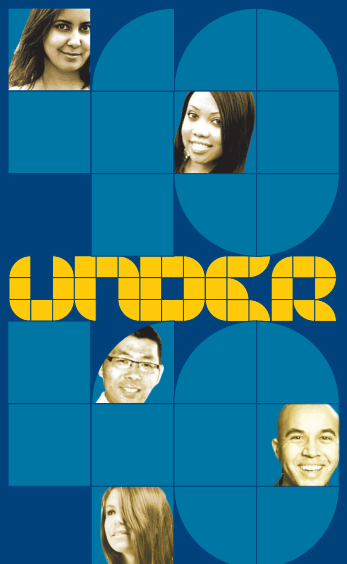
There, he saved up money that he would eventually pour into Post Brothers Apartments.

"We wanted to do the kinds of projects that no one had done before, at a higher quality than anyone else was doing," he says, with the goal to "produce higher returns than anyone else."

Just 10 years after its founding, the firm owns more than \$1 billion in real estate, including seven buildings in University City. It is a fully vertical integrated company, which Pestronk said is not common: They handle the buying and management of properties from start to finish, including financing, construction management, redevelopment and then management. They currently manage over 3,000 apartments and more than 200,000 square feet of commercial real estate across 20 buildings. In 2013, *Philadelphia Magazine* named them in its "Best of" list.

For this success, Pestronk gives plenty of credit to Drexel, especially his time working at CBRE-Insignia. "It can't be understated the advantage you can get in your career if you get a really good co-op," he says.

— Jen Miller



## WHAT'S YOUR STORY?

**What does it take to be named one of Drexel's 40 Under 40?**

Past honorees include authors, filmmakers, fashion designers, and founders of companies and nonprofits. They are leaders, inventors, scientists and athletes. We're incredibly proud of their stories, because they show how far a person can go with a great mind and a solid education.

We're looking for our next group of accomplished young alumni. If that's you, or someone you know, we want to hear from you.

## ELIGIBILITY

- Must be 39 years or younger as of March 1, 2018.

- Must have received a degree.

- Should have achieved demonstrated success in business, the private or nonprofit sector, the arts, community involvement or advocacy.

- Must submit nominee's high resolution photograph and résumé.

**Nominations can be submitted at [drexelmagazine.org/40U40](http://drexelmagazine.org/40U40) or sent to the following mailing address by Sept. 4, 2017.**

**DREXEL MAGAZINE  
40 Under 40 Nominations  
3141 CHESTNUT STREET  
MAIN BUILDING · SUITE 309  
PHILADELPHIA, PA 19104**







Sing With Me, Sing for the Years

*Can the power of music help people with dementia reconnect with the world around them? College of Nursing and Health Professions doctoral student Kendra Ray and her colleagues know that it can, because they see it every day.*

By Carolyn Sayre

WHEN BEATRICE HARRISON first came to Menorah Center for Rehabilitation and Nursing Care in Brooklyn more than a year ago, she was depressed. The 93-year-old had difficulty thinking clearly and chose to spend most days alone in her room — eating by herself and watching old television shows.

Then she met Kendra Ray, a board-certified music therapist and New York State-licensed creative arts therapist at Menorah. During their first session, Ray played the melody to “I Have Dreamed” on her flute, written by Beatrice’s favorite artist, Frank Sinatra.

*I have dreamed that your arms are lovely  
And I have dreamed what a joy you’ll be  
I have dreamed ev’ry word you’ll whisper  
When you’re close, close to me*

“When Kendra plays music, I go into another world,” says Beatrice, eyes moist. “I feel my mind calm and my body start to move. I feel like I am 20 again, seeing Frankie with my mother at the Paramount Theater in New York City. I can still remember the miles of people lined up to see him. He brought the house down that night.”

In the months since Beatrice began music therapy, she has come alive again, the staff say. She appears happier, participates in activities and socializes at mealtime.

Her weekly sessions have also had a profound

effect on her memory. Beatrice suffers from dementia, and she often forgets her own age; but when she hears a familiar tune, her caregivers say that it is as if a light turns on in her mind. That simple Sinatra ballad not only invoked a story about the concert, but it offered a gateway into dozens of lost memories from her youth, including childhood piano lessons, her father’s career as a singing waiter, seeing “Man of La Mancha” on Broadway and watching Julie Andrews.

With the door to the past ajar, Ray begins to play a song from “The Sound of Music.”

*I go to the hills when my heart is lonely  
I know I will hear what I’ve heard before  
My heart will be blessed with the sound of music  
And I’ll sing once more*

For Beatrice, and for so many other residents, the power of music helps them do just that — “sing” once more.

For the past eight years, as part of a music therapy program at Menorah, Ray has worked with patients who have dementia to remember their pasts through music. Many of them suffer from Alzheimer’s disease, a neurodegenerative condition that slowly destroys brain cells and leads to cognitive decline, impaired judgment and difficulty with daily activities.

Ray is not only a music therapist, she’s also a young researcher and influential author in the field,



Kendra Ray is a board-certified music therapist and New York State-licensed creative arts therapist who is completing her doctorate in the Creative Arts Therapies program in Drexel’s College of Nursing and Health Professions.



**MUSIC THERAPY:  
WHAT THE RESEARCH SAYS**

Music interventions help alleviate symptoms of anxiety, pain and fatigue in cancer patients, while also boosting their quality of life, according to a systematic review of the science of music therapy.

Led by Joke Bradt, associate professor in Drexel's College of Nursing and Health Professions, a team reviewed controlled clinical trials that examined the impact of music therapy (a personalized music experience offered by trained music therapists) and music medicine (listening to pre-recorded music provided by a doctor or nurse) on psychological and physical outcomes in people with cancer.

"We found that music therapy interventions specifically help improve patients' quality of life," explains Bradt. "These are important findings as these outcomes play an important role in patients' overall well-being."

The researchers reviewed a total of 52 trials, constituting 3,731 participants with cancer. Twenty-three of the trials were categorized as music therapy and the remaining 29 were classified as music medicine interventions.

One of the most impactful findings was that music interventions of all kinds resulted in a moderate-to-strong effect in reducing patients' anxiety.

When it came to pain reduction, the researchers found a large treatment benefit; for fatigue, a small-to-moderate treatment effect was found.

Small reductions in heart and respiratory rates, as well as lowered blood pressure, were also linked to music interventions.

"The results of single studies suggest that music listening may reduce the need for anesthetics and analgesics, as well as decreased recovery time and duration of hospitalization, but more research is needed," according to Bradt and her co-authors. — *Frank Otto*

who uses her experiences at Menorah to inform her studies as a doctoral student in the Creative Arts Therapies program in Drexel's College of Nursing and Health Professions. She says that Drexel's program, which is one of only a few in the Northeast, helped her hone the research writing skills she needed to publish her music therapy observations in scientific journals.

One of her studies, which was part of a three-year study funded by the New York State Department of Health, found that after only two weeks of music therapy, symptoms of depression decreased 38 percent and feelings of agitation declined 16 percent in nursing home residents with dementia. Since then, Ray and her team have developed a music-assisted care training manual that is being adopted by more than 600 nursing homes throughout New York, as well as additional facilities across the nation and overseas in Canada, Israel, Spain and Nigeria.

"Music therapy is a bridge for communication that would otherwise have been lost in people with dementia," says Ray, a longtime musician who aspired to be a nurse as a child. "Hearing that familiar song activates an area of muscle memory in the brain and helps them find the words they are searching for."

**"I Can See Clearly Now The Rain Is Gone"**

Philosophers dating back to Aristotle and Plato have believed that music promotes healing. References to music therapy can be found in medicine as early as 1789, and the profession formally organized after World War II, when musicians started visiting veterans' hospitals. Physicians noticed that patients were comforted when they heard familiar songs and hired musicians to play in the wards. Today, there are more than 6,000 credentialed music therapists nationwide.

Since the birth of the music therapy profession in the 1940s, research has continually affirmed its profound physiological and psychological benefits. Studies have shown song has the power to calm the heart rate in premature infants, coordinate movements in individuals with Parkinson's disease, decrease anxiety and pain in cancer patients, and regulate breathing in individuals with lung disease.

"Through music therapy, we are able to do things where routine pharmacological agents or conventional medical regimens may prove limited," says Joanne Loewy, director of the Louis Armstrong Center for Music and Medicine at New York City-based Mount Sinai Health System, who teaches music and medicine to Drexel graduate students.

Studies show that music activates large areas of the brain. In fact, when brain activity is examined in real time using a functional magnetic resonance imaging scan, areas related to movement, planning, attention and memory immediately light up when music is played. These functions are some of the first faculties to be affected by dementia.

"There is evidence of a music memory in the brain's neural pathways that is robust and can be preserved or reactivated when other mechanisms in the brain are lost," says Loewy. "When people are plugged into

music, they are turned on and tuned in — it is the difference between a battery, which might be temporary and run out (a usual thought), and being plugged into a constant current of electricity, fueled by melody, rhythm and contextual circumstances, which include the place and time affiliates where the music's imprint was first made."

Remarkably, this response is seen in every stage of dementia, says Ray. Patients with mild cases can improve cognitive skills such as memory, language and attention; while those with moderate symptoms become more engaged and participative, which greatly improves their quality of life.

"With the power of music, residents retain their dignity because they remember who they are and where they have been in the past," explains Ray. "This helps ground the patient in the present when they are confused. From this, we see a decrease in the symptoms of dementia, including agitation, feelings of sadness, hallucinations and wandering."

That was certainly the case with Donald Miller, 74, a jazz musician who once traveled the world. His health deteriorated after he lost the love of his life to cancer. When he came to Menorah, Donald was lost, depressed, heartbroken and in great physical pain.

"Through music therapy, we see him starting to come back," says his sister, Fran Miller. "Donald wants to be involved, he wants to be alive and he is engaged again."

But perhaps the most extraordinary effects occur in the later stages of dementia.

"Even when language has deteriorated to the point that a person has lost the ability to speak, miraculously the music memory stays in tact," explains Ayelet Dassa, director of Creative Arts Therapies and Research at the Ramat-Gan Alzheimer's Research and Treatment Center in Israel who co-wrote a book chapter about music therapy with Ray (it was recently published in *Update on Dementia*). "These individuals are able to communicate through music when words fail. Songs help them relive past experience. It is magical to witness the entire world come alive again in their brain."

**"They Can't Take That Away From Me"**

That magic is apparent in Abe M., a 78-year-old resident at Menorah. When Ray first walks into his room, Abe appears lackluster under the stark white bed sheet. His breathing is deep and haggard.

Ray takes out her guitar and begins to strum the strings.

"Do you know this song?" she asks.

"Yes," he responds as the corner of his lips perk up.

Abe's wide eyes fixate on Ray, his chest begins to rise and fall calmly, and his hands move slightly yet rhythmically to the beat.

*Many nights I'd sit by my window*

*Waiting for someone to sing me his song*

*So many dreams I kept deep inside me*

*Alone in the dark, but now you've come along*

"You light up my life," he sings, filling in the last line of the chorus. When the music stops, Abe's body animates as if were a wind-up toy waiting to turn on and he claps loudly in appreciation.

"Kendra lights up my life when she comes here," he says. "I just love music."

Two years ago, when Abe first came into nursing care, he was disoriented and would scream constantly for help. After three months of music therapy, he became calmer and was easier to bathe and dress.

"I have come a long way, baby," he says in jest — a part of his humorous personality that reappears when he is with Ray. "Back then, I could not even move my hands. Now, look at me move."

Part of Ray's technique is to create a playlist for each resident's tastes and personality. A self-proclaimed romantic, Abe's favorites are love songs, so Ray uses songs like "The Power of Love" to help him connect with his emotions. She also selects uplifting songs when the individual's mood is sad or anxious. Using flute, guitar, maracas and drums, Ray creates an uplifting, calming ambiance.

"To achieve good outcomes in people with dementia, we need to do more than just play their preferred song," explains Ray. "We want them to associate a song with an emotion or situation that they are dealing with. When I first sang to Abe, all he would do was cry. Over time, we developed a therapeutic relationship and a safe space where he could process those feelings. Music became his release."

By using word associations within song lyrics, Ray has also been able to help Abe tap into past experiences. Over time, as they have developed a rapport, Abe has delved further into these memories including trips to Scandinavia, working as a construction plumber and his close relationship with his brother.

**"Lean On Me When You Are Not Strong"**

Over the years, Ray has helped more than 100 residents through the power of song. But a few years ago, she wanted to do more. She knew the statistics were daunting. There are more than 5 million people living with Alzheimer's disease and dementia in the United States and only 6,000 music therapists nationwide. Furthermore, nearly 50 percent of all residents in nursing homes suffer from symptoms of dementia.

"Unfortunately, very few of these music therapists work in nursing homes where their work can improve the lives of residents with dementia," explains Ray. "To reach more residents, we needed to train nursing assistants to use music. Nursing assistants spend the most time with residents and when they integrate music into their care, it can significantly reduce symptoms of agitation and depression."

To help educate nurses and other caregivers, Ray and her colleagues used funding from the state of New York to develop a curriculum called "Music Therapy: Keys to Dementia Care," which has been implemented in facilities throughout the United States and the world. The training manual teaches caregivers how to use singing and background music to make people

“Even when  
language has  
deteriorated to  
the point that a  
person has lost the  
ability to speak,  
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more alert and receptive to care in stressful situations such as bathing, dressing or wound care. For example, the booklet lists songs that can create a calming atmosphere for residents, including "Somewhere Over the Rainbow" or "Beyond the Sea." It also encourages caregivers to tailor music to the individual.

The protocol was used to train dozens of registered nurses and certified nursing assistants (CNA) at Menorah. Shernett Williams, a CNA, says music-assisted care training has been particularly helpful with bathing — an activity only 10 percent of nursing home residents can perform independently.

"When residents are agitated, we turn on the iPod and immediately we see them calm down," she explains. "Some of my residents refuse to participate in any activities, but when there is music they listen and sing along."

Ray's work has also had an impact abroad. Melisa Mercadal-Brotons, director of the Music Therapy Program at the Escola Superior de Música de Catalunya in Spain, has used her book to train caregivers in 13 nursing homes throughout the country.

"Kendra Ray's work has been inspirational in helping us develop a way for caregivers to use music in their daily work and what elements to consider when selecting music to use," says Mercadal-Brotons. "Residents are more cooperative and content, which makes the caregivers' job feel more satisfying."

In the future, Ray hopes to extend music-assisted care training and education to family caregivers, who are integral to the long-term care process. By 2050, the number of people age 65 and older with Alzheimer's disease is expected to triple, and Ray and Dassa of the Ramat-Gan Alzheimer's Research and Treatment Center believe it is essential that families find ways to integrate music at home.

**"Some Were Born To Sing The Blues"**

When Ray places Donald Miller's saxophone on the bedside table, it's clear he's eager for an audience. He opens the case, assembles the pieces and licks the bottom piece like a maestro. The nurse picks up a rain stick to play along. He insists they play "Misty" — and only "Misty" — and blows with all his might.

*I'm as helpless as a kitten up a tree*

*And I feel like I'm clinging to a cloud*

*I can't understand*

*I get misty, just holding your hand*

Ray asks him about the song choice. "It reminds me of the old days when I was hanging out with my friends in Bermuda playing jazz," says Donald. "That, and I like Clint Eastwood."

He gazes outside at the rain falling on the windowpane and lets out a slow, deep breath. His body reclines back in the chair as though a weight has been lifted off his shoulders, if only for a few moments. It is obvious from his demeanor that the lyrics represent so much more. For Donald and so many others, the world, it appears, is just a little brighter when it is filled with music.



## CROSS ROADS

Anthony Whittington '12 poses with the birthday boy at GNN Philadelphia. A.J. Drexel made an appearance at many GNN locations.



DENVER



PHILADELPHIA



NEW YORK CITY

Delightful conversation and delicious fare at #DrexelGNN 2016 Washington, DC. - @lililocke

Lovely evening meeting fellow San Diego area Drexel alumni #drexelgnn @ Ballast Point Brewing

SCOTTSDALE



SAN FRANCISCO



SAN DIEGO



SOUTH FLORIDA



HOUSTON



AUSTIN



D.C. / BALTIMORE



NEW JERSEY



Alumni and guests packed the house at Flying Fish Brewing Company at GNN South Jersey. Drexel's very own 125th anniversary Dragon's Gold Ale was on tap, and guests were treated to a tour of the environmentally sustainable brewery owned by Drexel grad Gene Muller '84.

Laura Calderone '13 and George Weber '13 celebrated GNN and A.J. Drexel's 190th birthday with friends and fellow Dragons at Leinenkugel Beer Garden in Baltimore.



# 190

wishes made by students for their time at Drexel, in honor of A.J. Drexel's birthday

I WISH...

... to become a beneficial member of society and do well in school while being true to who I am."

BRISEIDA MARTINEZ

... to retain my scholarship, get a great job and meet my best friends."

NATALIE STEFANO

... to enjoy the next five years to the fullest."

ROSS KELLY

... to design a prosthetic, to stay focused and do well in my classes."

SHELBY INGRAM

NEW DELHI



MUMBAI



# 612

alumni and guests attended GNN happy hours and meetups

# 67,960

people worldwide reached through #DrexelGNN

# 60

alumni volunteers served as hosts, guest speakers and online mentors

# 120

alumni participated in Virtual Power Networking throughout the day

## Going Global

Thousands of Dragons connected across the world this fall at the Global Night of Networking, an annual event hosted by Drexel Alumni.

This was an especially commemorative year for alumni as 2016 marked both Anthony J. Drexel's 190th birthday and the University's 125th anniversary. The Class of 2016 was also welcomed to the alumni community. With in-person receptions in two dozen cities and a wide range of virtual networking sessions, GNN 2016 proved the power of the Drexel network and opened the door to incredible opportunities for graduates around the world.





## VETERANS DAY

# Thank You for Your Service



**Thomas "Tom" A. Masci Jr., BS business administration '68**

After graduation, Tom Masci joined the Army and spent a tour of duty in Korea during the Vietnam War. Now retired, Masci was the co-founder and the executive vice president and chief financial officer at Health Advocate Inc. Masci supports the Goodwin College's Veterans Student Resource Center, which helps returning veterans with academic services so they can successfully navigate college life. Specifically, his donation goes toward a University 101 course specifically designed to help veteran students acclimate to the rigors of Drexel.

**Lt. Col. (Ret.) Charles "Chuck" Vincent, BS electrical engineering '57**

Lt. Col. Vincent, a Korean and Vietnam War veteran, served in the Marine Corps. After graduating from Drexel, he enlisted in the Army as a 2nd lieutenant. His military career included deployments in Europe and Asia and included numerous years of distinguished service marked by citations, medals and ribbons.

**Bennett S. LeBow, BS electrical engineering '60, HD '98 (not pictured)**

Bennett LeBow is chairman and CEO of BSL Capital and is founder and chairman of the board of the Vector Group Ltd. He also serves as chairman of Signal Genetics Inc. Before devoting himself completely to private business, in 1968 LeBow served in the Pentagon, initially as a first lieutenant and subsequently as a civilian, serving as assistant to the assistant vice chief of staff of the Army. At Drexel, LeBow served as a trustee from 1986 to 1994 and the LeBow College of Business is named in his honor.

**Col. (Ret.) Thomas "Tom" Matthews, BS business administration '72**

Col. Matthews served in the United States Army, retiring in 2001. In 1993, in the Battle of Mogadishu, Somalia, he served as the Air Mission Commander of the Black Hawk Helicopters of Task Force Ranger. The event later inspired the major motion picture "Black Hawk Down," for which Col. Matthews served as the technical advisor. During his 28-year career he commanded the 101st Aviation Brigade, comprised of nine battalions, 3,400 soldiers and 300 helicopters.

## THE HONOREES, PICTURED FROM LEFT TO RIGHT, ARE:

**Maj. Gen. (Ret.) Jack K. Stoner Jr., BS chemical engineering '51**

Maj. Gen. Stoner is one of the highest-ranking military officials to have graduated from Drexel. Following his graduation, where he served in the ROTC, he received an Army commission as a second lieutenant, artillery. He completed the Chemical Corps School Advance Course and subsequently served in both Korea and Vietnam. In 1978, he became the first commanding general of the Communications-Electronics Material Readiness Command until his retirement in June 1980.

## 50s

**Stanley H. Cohen**, BS chemical engineering '57, senior counsel at the law firm of Caesar Rivise, was named in the 2017 edition of *The Best Lawyers in America* for copyright law.

## 60s

**John J. Degnan**, BS physics and atmospheric science '68, was elected a 2017 Fellow in the Optical Society of America for his leadership in the advancement of laser technology and its applications in satellite and precision interplanetary distance ranging, 3-D imaging and atmospheric lidar, free space optical communication and medical instrumentation.

**Richard Shea**, BS chemistry '69, authored the 50th anniversary edition of "The World Trade Center Stories" in e-book format.

**Norman Smith**, BS business administration '69, MS business administration '71, president of Elmira College, authored the book "Mistakes to Avoid When Deciding on Your College," an update of his previous book, "Selecting the Right College."

**Kenneth C. Springirth**, BS mechanical engineering '62, authored his 32nd book, "Street Cars of Washington D.C.," which covers the former DC transit system that operated street cars until the conversion to bus operation in 1962, and the new H Street-Benning Road street car line which opened in February 2016.

**Barry A. Stein**, BS electrical engineering '65, partner at the law firm of Caesar Rivise, was named in the 2017 edition of *The Best Lawyers in America* for copyright law, litigation-intellectual property, patent law and trademark law.

**Stewart M. Weintraub**, BS business administration '68, attorney at Chamberlain, Hrdlicka, White, Williams & Aughtry, gave the talk, "Philadelphia and Pennsylvania Local Tax Developments" as part of the Pennsylvania Institute of Certified Public Accountants Greater Philadelphia Chapter Annual Philadelphia, Local and Multistate Tax Update Conference.

## 70s

**Donald P. Erb**, BS civil engineering '73, senior design engineer at FMC Technologies Inc., retired in January after 40 years of designing bulk material handling structures for projects in the United States, Canada, Venezuela, Chile, Philippines, Australia and China.

**Roseann Termini**, BS human behavior and development '75, published a new print edition of "Federal Regulation of Drugs, Biologics, Medical Devices, Foods, Dietary Supplements, Personal Care Products, Veterinary and Tobacco Products," and a 12-volume series of Food and Drug Law e-books. She also co-authored the law article, "Right to Try or Right to Ask?"

## 80s

**Barry Luber**, BS accounting '85, was sworn in as township manager of Warrington Township, Pennsylvania.

**Livia M. Nascimento**, BS mechanical engineering '87, MS engineering management/mechanical engineering '97, was promoted to vice president, compliance at ARRIS International Plc.

**John Segletes Jr.**, BS mechanical engineering '80, joined the family-owned energy consulting group, Richards Energy Group, as an energy management consultant.

## 90s

**Kimberley Atkins Adams**, BS architectural engineering '92, has joined award-winning multidisciplinary engineering consulting firm Pennoni as a division manager.

**Ayisha Ezic Sereni**, BS economics '94, accepted a position as associate dean of academic affairs of Harrisburg Area Community College's Lebanon and virtual campuses.

**Gina Furia Rubel**, BS corporate communication '91, president and CEO of Furia Rubel Communications and chair of the Philadelphia Bar Association Law Practice Management Committee, will co-present at the Philadelphia Bar Association "Ethics and Incorporating New Technologies in Your Law Practice Digital Marketing Conference."

**Salvatore R. Guerriero**, BS biological science '90, partner at the law firm of Caesar Rivise, was named in the 2017 edition of *The Best Lawyers in America* for intellectual property litigation.

**Barry J. Jacobs**, PsyD clinical psychology '90, co-authored with his wife, Julia L. Mayer, the book "AARP Meditations for Caregivers — Practical, Emotional and Spiritual Support for You and Your Family," which features real-life stories of family caregivers who have found ways to reap caregiving's potential positive rewards.

**John D. Simmons**, BS electrical engineering '92, has been chosen to serve as president-elect of the Philadelphia Intellectual Property Law Association.

**Janet Slingerland Hammond**, MS electrical engineering '94, authored "Neuroscience," an introduction to the topic geared toward students in grades 6–12, and educational children's books, "What Makes the Sky Blue?" and "What Causes a Rainbow?"

## WEDDINGS AND BABY DRAGONS



**Mark Ticktin**, BS biomedical engineering '08, married Tara Winters on Sept. 25, 2016.



**Christe Thompson**, BS communications '14, and **Andrew Konopitski**, MMS medical science '13, were married on Sept. 24, 2016.



**Dennis Cann**, BS business administration '06, and **Michelle Cann**, BS history and politics '07, had a daughter, Stella Jane, on July 18, 2016.



**Kevin Cunningham**, BS/MS computer engineering '11, and **Josa Hanzlik**, MS biomedical engineering '13, PhD biomedical engineering '16, had a daughter, Mary Charlotte, on Aug. 29, 2016.



**David J. Glass**, PhD law-psychology '97, and Carol McNamara Glass had a son, Andrew McNamara Glass, on Dec. 19, 2016.



**Scott Goehringer**, BS/MS mechanical engineering '11, MS engineering management '16, and **Sarah Goehringer**, BS elementary education '11, MS educational learning technologies '11, had a daughter, Beth Charlotte, on June 2, 2016.



**Michelle Summers**, MS arts administration '15, and Jonathan Summers had a daughter, Audrey Frances Summers, on Aug. 7, 2016.



**David J. Glass**, PhD law-psychology '97, was elected to Southern California's Super Lawyers list for the 11th time since 2005. Glass is a family law attorney and chair of the Family Law Department at Enenstein Ribakoff LaViña & Pham in Los Angeles.

**William Nilsson**, BS mechanical engineering '91, launch service integration engineer with Lockheed Martin, successfully launched the Geostationary Operational Environmental Satellite, R-Series (GOES-R) into orbit aboard a United Launch Alliance Atlas V 541 rocket.

**Stephen Woerner**, BS electrical engineering '90, was selected by the Children's Guild as the 2017 Sadie Award winner, which recognizes people who embody the organization's spirit and vision of making the seemingly impossible possible.

## 00s

**Robin Blair**, MS interior design '00, has joined Herman Miller as the human factors and ergonomics specialist for the Philadelphia region.

**James W. Schoppe**, BS business administration '05, was promoted to consulting manager at the accounting and advisory firm Baker Tilly Virchow Krause.

## 10s

**Heidi S. West**, global health '13 (non-degree certificate), is the co-founder of Global Environmental Health LAB, an NGO that completed a public health research and capacity-building program in Myanmar. This effort aims to lay the foundation for ongoing epidemiological and environmental health research projects related to natural disasters, water, solid waste and air pollution.

## Friends We'll Miss

### 1930s

**Paul M. Mollenkof**, DC mechanical engineering '33  
**Marjorie Robinson Morgan**, DC secretarial '39

### 1940s

**Mary E. Brennan Curran**, BS home economics '42  
**Joseph M. Brethwaite**, BS mechanical engineering '48  
**Nancy C. Brown Dever**, RN nursing '46  
**Catherine G. Campbell**, BS retail management '47  
**Jean C. Campbell Murphy**, BS home economics '48  
**John J. Donnelly**, BS business administration '47  
**Alice Dunkelberger Behre**, BS home economics '45  
**John F. Ehinger**, BS business administration '47  
**Carmela Foderaro De Rivas**, MD medicine '46  
**Edwin A. Gleason**, MD medicine '44  
**Edward A. Jasionowski**, MD medicine '46

**Harold C. Joram**, BS mechanical engineering '40  
**Robert K. Marple**, BS chemical engineering '47  
**Barbara Melvin Hollingshead**, BS home economics '42  
**Robert G. Necker**, DC mechanical engineering '44  
**Philip B. Perkins**, DC library science '49  
**Walter K. Platt**, BS mechanical engineering '44  
**Iva Marie Roudabush Johnston**, RN nursing '48  
**Marian Russo Bogden**, RN nursing '47  
**Charles W. Schiffert**, MD medicine '46  
**Elizabeth Schreiber McClain**, BS secretarial '45  
**Janet Sherrard Boardman**, DC library science '49

**John M. Strecker**, BS mechanical engineering '47  
**Janet Elaine Tew Sollenberger**, RN nursing '46  
**Ugo R. Tognella**, BS mechanical engineering '48

### 1950s

**William M. Barnes**, BS civil engineering '50  
**Jack P. Besse**, BS business administration '52  
**Richard J. Birkofer**, BS civil engineering '53  
**Marie Sullivan Blackman**, MD medicine '57  
**John J. Brown**, BS business administration '52  
**Mary Magdalene Cavasina**, MD medicine '52  
**Lawanda Cramer Solometo**, RN nursing '53  
**Janet Cuttner**, MD medicine '57  
**John Dzwonczyk**, MD medicine '54  
**Howard L. Feldman**, BS mechanical engineering '56  
**Theron C. Foote**, BS business administration '58  
**Kenneth Eugene Gangwer**, BS chemical engineering '55  
**Richard R. Gearing**, DC metallurgical engineering '58  
**Robert H. Goucher**, BS electrical engineering '51, MBA business administration '59  
**Edward D. Harrison**, BS retail management '58  
**Ruth Harvey Pike**, BS home economics '58  
**Salvatore M. Imperiale**, MD medicine '59  
**Victor J. Irmiere**, MD medicine '55  
**Walter E. Jackson**, BS chemical engineering '59, PhD environmental engineering '70  
**Russell L. Johnson**, BS mechanical engineering '59  
**Mary Klanian**, DC library science '52  
**Ethel M. Klingerman**, DC library science '51  
**Elizabeth Andree Kultchar**, MD medicine '59

**George A. Lauro**, MD medicine '58  
**Paul Sherman Lauther**, BS business administration '59  
**Robert Lifshin**, DC civil engineering '56, BS '58  
**Robert W. Lord**, DC civil engineering '59, BS '61  
**Nicholas J. Marcucci**, BS civil engineering '51  
**Frances B. Moreland Lewis**, MLS library science '54  
**Frances Nucci Di Clemente**, BS home economics '54  
**Jeanette Pancoast Kern**, BS home economics '53  
**Daniel J. Quagliarello**, BS chemical engineering '55  
**Eugene M. Rooney**, MLS library science '54  
**Robert W. Schweitzer**, BS electrical engineering '55, MBA business administration '71  
**Ronald J. Tallarida**, BS physics and atmospheric science '59, MS '63  
**Clark E. Thompson**, MD medicine '58

**Lewis W. Walters**, BS business administration '56, MBA '61  
**Donald E. Weaver**, BS mechanical engineering '50  
**William Thomas Weir**, BS electrical engineering '54, MS physics and atmospheric science '58  
**Elaine K. Wong Chong**, MD medicine '51

### 1960s

**Richard T. Arnold**, BS business administration '69, MBA '71  
**John C. Barch**, BS business administration '67  
**Alan D. Benson**, BS mechanical engineering '61, PhD applied mechanics '70  
**Ernest M. Blumenthal**, BS business administration '60  
**Lynne C. Brocious Pierce**, RN nursing '61  
**Robert G. Brown**, BS mechanical engineering '66  
**Arthur F. Burk**, BS chemical engineering '63  
**Robert L. Capizzi**, MD medicine '64

# THERE'S AN ALUMNI VOLUNTEER OPPORTUNITY FOR EVERY KIND OF DRAGON.

Want to stay connected to Drexel? Alumni volunteer opportunities are a great way to benefit from the University's extensive network while helping it grow. No matter your interests, there's something for everyone who would like to make a difference in the Drexel community. Close to 1,000 alumni volunteered for Drexel last year – help us double it in 2017!

To find a volunteer opportunity that is a perfect fit for you, contact Lauren Villanueva, BA '04, MS '09 in the Office of Alumni Relations at [lmr24@drexel.edu](mailto:lmr24@drexel.edu) or **215.895.2644**.



**Elise Hallman, BS/MS electrical engineering '15**

*Elise is an Alumni Ambassador, representing Drexel at college fairs in Texas and talking to high school students who are interested in going to Drexel.*

“Volunteering keeps me connected to Drexel and my college experiences despite how far away I am. It also allows me to promote Drexel and everything that it has to offer in an area where it is not as well known.

**Jamila Payne, BS design & merchandising '00, MBA business administration '11**

*Jamila volunteers as an Alumni Career Services presenter by conducting workshops that empower her fellow grads to be more productive, start or grow a business, and advance their life and career goals.*



“Being engaged with Alumni Career Services as a volunteer allows me to live out my purpose and values. As a volunteer, I'm not only able to support others in sharpening their skills but I also learn a lot in the process.



**Andrew Janos, BS architectural engineering '10**

*As a regional alumni network leader, Andrew promotes alumni events in his area to his network, provides feedback and shares new ideas for alumni community involvement.*

“Currently I have two startup businesses that take up most of my time, therefore volunteering as an alumni network leader is a great fit. It allows me to remain active in the network and put forth the best effort to help grow interaction of alumni.

**Tim Rosales, MBA business administration '13**

*Tim volunteers for community service projects with the Sacramento Area Alumni Network and leads the Drexel Alumni Run to Feed the Hungry team every Thanksgiving to support the Sacramento Food Bank.*



“For me, the Run to Feed the Hungry team event marries outdoor activity and fitness – two things I am passionate about – with supporting local organizations that are doing great things to move families toward self-sufficiency and financial independence.





# ALUMNI WEEKEND 2017

Friday, May 19 and Saturday, May 20

It's a city-wide celebration.  
Alumni Weekend will be filled with **signature events** that will spark your Dragon spirit. Share memories, reunite with friends and relive your Drexel days with a weekend of unforgettable alumni experiences!

Visit [drexel.edu/alumni/weekend](http://drexel.edu/alumni/weekend) for a full schedule of events and to register.



**Philadelphia Zoo**  
Alumni Family Picnic



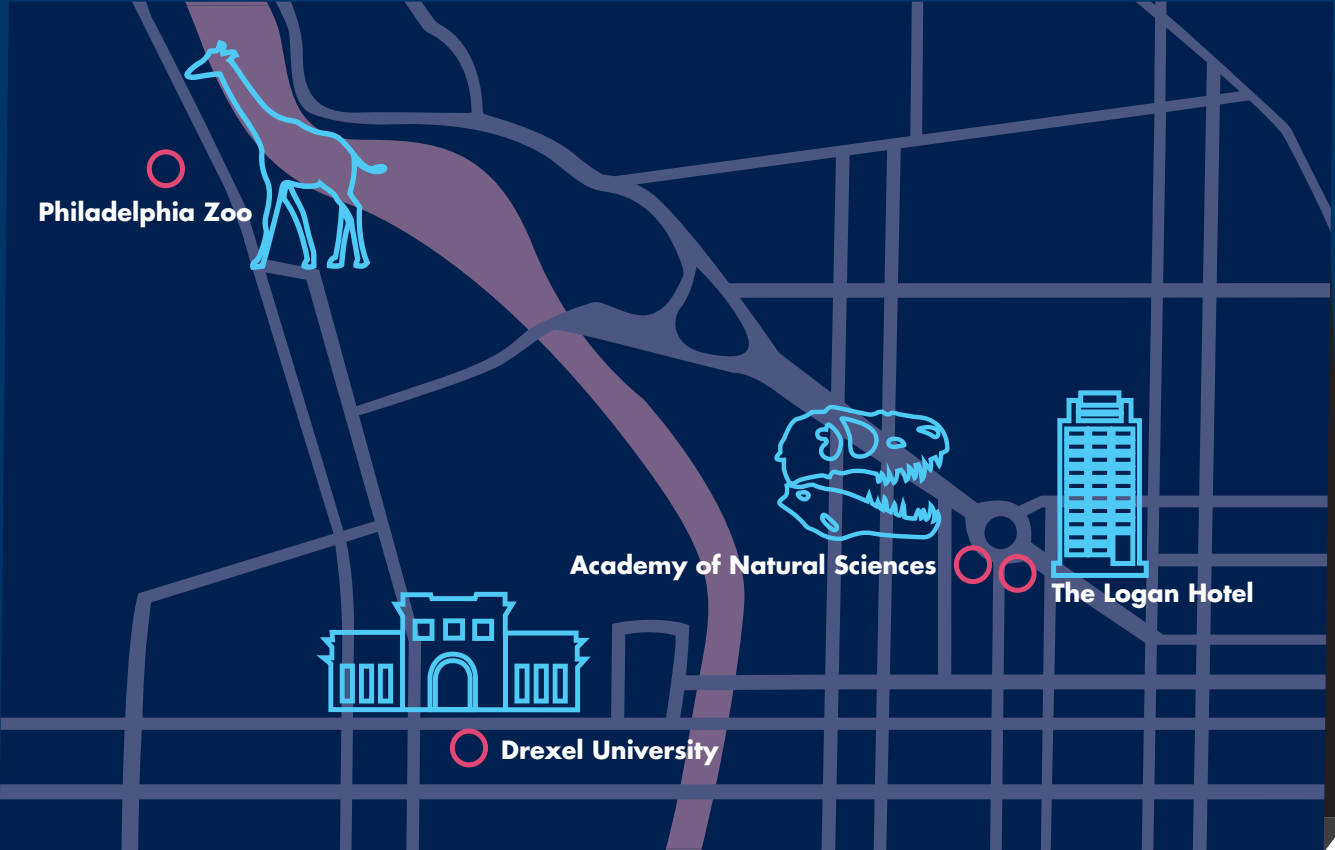
**Drexel University**  
Class of 1967 50-year Reunion;  
Young Alumni and Senior Beer Hall



**Academy of Natural Sciences**  
Drexel After Dark



**Logan Hotel**  
• Class of 1992 25-year Reunion  
• Class of 1987 30-year Reunion  
• 40 Under 40, Legacy Family and Drexel Couples Receptions



## CROSS ROADS FRIENDS WE'LL MISS

**William E. Carr**, BS business administration '69  
**Henry G. Chamberlain**, BS mechanical engineering '63  
**Joseph J. Cincotta**, MS mechanical engineering '65  
**Peter W. Crawford**, MBA business administration '68  
**William R. Cronin**, BS electrical engineering '67  
**Lee A. Davis**, BS electrical engineering '67  
**Jane G. Fox**, MS library science '66  
**Lonnie E. Fuller**, MD medicine '60  
**Frank Gargione**, BS electrical engineering '61  
**Kathleen A. George**, RN nursing '65  
**Richard M. Greco**, BS electrical engineering '64  
**Jewell Jo Ann Gross Wine**, MD medicine '66  
**Herbert A. Hanson**, MS electrical engineering '66  
**William R. Hodson**, BS electrical engineering '67  
**Anne Hogan Bailey**, BS home economics '69  
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**Jacob J. Keilsohn**, MS electrical engineering '61  
**Louis P. Konopelski**, BS retail management '61  
**Patricia Ann Laicha**, MD medicine '69  
**Milton R. Lang**, BS electrical engineering '60  
**Janis Sau Ling Lee**, MD medicine '64  
**Irwin Lipsitz**, BS electrical engineering '69, MS biomedical engineering and science '73  
**Carol Jean Mackey Glanzberg**, MD medicine '64  
**Walter J. Metcalf**, MBA business administration '62  
**D. Vaughn Micklos**, MD medicine '66  
**Victor J. Norris**, MS physics '61  
**Clarence George Novotny**, MD medicine '65  
**Steven D. Promisloff**, MD medicine '69

**Edward P. Reddy**, BS mechanical engineering '65  
**Edward P. Rennie**, BS electrical engineering '67  
**Charles A. Searing**, DC library science '64  
**John A. Stratton**, BS mechanical engineering '63  
**Geoffrey Suszkowski**, BS commerce and engineering '64  
**Harvey Tritel**, MD medicine '69  
**John P. Veasy**, BS electrical engineering '60  
**Marvin L. Weisbein**, BS electrical engineering '65  
**Walter R. Wiehler**, MS chemistry '60  
**Alexander W. Williams**, MD medicine '63  
**David Henry Wood**, BS mechanical engineering '62  
**Harry Zall**, MD medicine '65

**1970s**  
**Annette B. Biberman**, MS library science '71  
**Randall J. Brubaker**, BS sociology '72  
**Alan H. Confer**, BS chemistry '70  
**Diane M. Dennis Levan**, BS design '76  
**Daniel J. Downs**, BS retail management '78  
**James S. Fal**, MBA business administration '75  
**Donald W. Fausnacht**, BS civil engineering '77  
**Thomas P. Fee**, BS business administration '74  
**Jean Long Fourcroy**, MD medicine '74  
**Susan Hochschild**, MS library science '71  
**James M. Kauffman**, BS business administration '72  
**Robert V. Lindstrom**, BS mechanical engineering '75  
**H. Wayne Logsdon**, BS electrical engineering '75  
**Shirley E. Lutz Lewis**, MS library science '72  
**Robert J. Mudrock**, MS library science '77  
**Rose Mary Randall Beach**, MS library science '71

**Thomas H. Snape**, MS environmental engineering '72  
**Robert P. Stillwell**, MS physics and atmospheric science '78  
**David T. Weaver**, BS business administration '73

**1980s**  
**Richard Ira Billmers**, BS chemistry '85, MS '87, PhD '92  
**Sharyn Fern Clauson**, MBA business administration '82  
**John M. Gardiner**, BS finance '82  
**Stanley Thomas Gorecki**, BS marketing '87  
**Kerry Maccartney Berk**, MS home economics '81  
**Francis Joseph Masley**, BS mechanical engineering '89  
**John F. Traexler**, BS mechanical engineering '82

**1990s**  
**Stephen John Anderer**, PhD law-psychology '97  
**Joseph Richard Matteo**, MBA business administration '95  
**2000s**  
**Andrew H. Franklin**, BS information systems '06  
**Robin Schmidt-Abe**, BS fashion design '00  
**Earl J. Texter**, BS business administration '04  
**2010s**  
**Sarah Bertler**, post masters certificate nursing '11  
**Sandra N. Jones**, doctor of nurse practice '13

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Crossword

YOUTH OF TODAY

Introducing our new puzzle master, Evan Birnholz. Not only is he an alumnus, he's also one of our 40 Under 40, and therein lay many of the clues to this edition's puzzle...

ACROSS

- 1 "Fantastic Four" actress Jessica
- 5 \*Industry that Tonic Design Co. managing director Justin Mathews and Code for Philly executive director Dawn McDougall work in, briefly
- 9 Uber charge
- 13 Fly like an eagle
- 14 Singer-songwriter Guthrie
- 15 Speak off the cuff
- 16 \*Photo-sharing site in which YouTube Originals marketing manager Evan Cuttic's dog René-Charles has more than 75,000 followers
- 18 Honda competitor
- 19 Feudal estates
- 20 Graveyard shift hr.
- 22 "Yo"
- 23 Geek Squad callers
- 25 Ming artifact
- 27 "The Nutcracker," e.g.
- 30 Make, as a shot off the backboard
- 32 Inventor Whitney
- 33 Handle the helm
- 36 "That's my cue!"
- 38 Very, very long time
- 39 \*Branch of medicine practiced by Christine Du, David Hardski and Justin Singer
- 42 Garden of Eden evictee
- 43 Puff on a blunt
- 45 Arctic residence
- 46 Like meat that's risky to eat
- 47 Textbook diagram
- 50 Rumples, as hair
- 52 Forbidden action
- 53 Rock collector's sparkly rock
- 55 Party purchase
- 57 "This means war!"
- 59 Not suitable
- 63 Boise State's state
- 65 \*Argentine region where NC State PhD student Alison Moyer unearthed the neck bone of the dinosaur *Dreadnoughtus schrani*
- 67 Any "Lost" episode, now
- 68 Ready for customers
- 69 Series of political tweets, perhaps
- 70 Capture
- 71 \*\_\_\_ Water (smart faucet-developing company co-founded by Connor White)
- 72 "Woe is me!"

DOWN

- 1 "Like that'll ever happen!"
- 2 \*\_\_\_ Philip Tabb (assistant professor of biostatistics in the Dornsife School of Public Health) ... or actress Anderson
- 3 Facility with barracks
- 4 Like the Dodger in "Oliver Twist"
- 5 Good defensive play for the Phillies
- 6 Bad defensive play for the Phillies
- 7 Highlands groups
- 8 "\_\_\_ Alone" (Christmas film)
- 9 Pharmaceutical-approving org.
- 10 \*Topic of research for neuroscientists Dheeraj Roy and Towfique Raj
- 11 Uber offering
- 12 Cyberspace marketplace
- 15 \*City of residence for Nihad Almasri (dean of the faculty of Rehabilitation Sciences at the University of Jordan)
- 17 Evaluate
- 21 Palindromic woman's name
- 24 Caesar's rebuke to Brutus
- 26 Enjoy Snowbird, say
- 27 \*Flavor of "B" (vegetable-flavored brandy created by Boardroom Spirits co-founders Vlad and Marat Mamedov)
- 28 Emotionally distant
- 29 \*Rock band with an "Underground" community in which Lorenzo Errico is a digital marketing manager
- 30 Belgian singer Jacques
- 31 Explosions in the sky
- 34 Lake that may give you chills?
- 35 Halloween projectile
- 37 \*"Chasing \_\_\_" (nightly TV program where FOX 5 DC reporter Ronica Cleary worked for three years)
- 40 Long-time Cowboys QB Tony

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PUZZLE BY EVAN BIRNHOLZ





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