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CORNELL IN NYC

Cornell is an integral part of New York City's past – and through

York City's past – and through research, outreach and imagination, a steadily growing part of its future.

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Diversity and inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, protected veterans, and individuals with disabilities.

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#### ON THE COVER

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#### FROM THE PRESIDENT

This issue of Ezra is reaching you shortly after I have become president of Cornell University. Since being selected as Cornell's 14th president last fall, I've wrapped up my work at the University of Michigan, and my husband, Ken Gottschlich, and I are excited to begin a new adventure at Cornell. We thank you for the warm welcome we have already received.

Cornell's spirit of innovation – evidenced by its faculty, students, staff and alumni – has earned it a national and international reputation for excellence and is driving the university's leadership among institutions of higher education in the 21st century. I am honored, humbled and thrilled to be Cornell's new president and energized by the possibilities that lie ahead.

Over the next few months, I will be immersing myself in every aspect of Cornell's mission. I briefly visited the Ithaca campus, Weill Cornell Medicine and Cornell Tech as president-elect, and I am eager to learn more about the university's impact in Ithaca, New York City, New York state, across the country and around the world. I also look forward to connecting with the university's diverse and global alumni community, whose passion for Cornell is second to none. From the alumni I've met and the letters and emails I have received from others – including colleagues and acquaintances whom I hadn't realized were Cornellians – I've already seen some of that passion firsthand.

With this issue of Ezra, I am learning, along with you, about Cornell's expansive footprint in New York City, exploring the culture and interconnected ecosystem of entrepreneurship throughout Cornell, and meeting some of our recently hired, collaborative faculty members. It is an insightful, colorful and perceptive tour, and a taste of the excitement I'm finding throughout the university every day.

As I continue to learn from all of you, I am confident that together we will craft a vision for Cornell that builds on the university's areas of strength, extends our academic excellence, ensures our diversity and inclusivity, and shapes our future as "One Cornell."

Martha E. Pollack

President, Cornell University

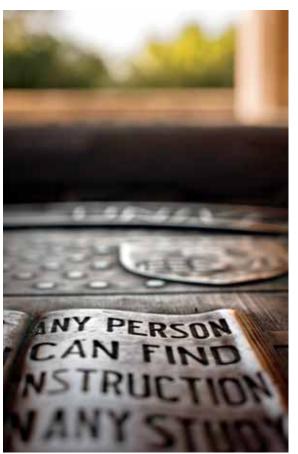
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"I also look forward to connecting with the university's diverse and global alumni community, whose passion for Cornell is second to none."

Martha E. Pollack

## **CORNELL** UNIVERSE



### ENDOWED SCHOLARSHIP CHALLENGE LAUNCHED

When it comes to upholding Cornell University's commitment to financial aid for "any person ... any study," Cornellians are always ready for a challenge, according to Fred Van Sickle, vice president for alumni affairs and development.

"They consistently make all the difference for the university," he said.

At the start of 2017, Cornell launched a fundraising challenge aimed at creating up to 100 new endowed scholarships, totaling an estimated \$25 million, for aid-eligible undergraduates, professional school students, and graduate school students on the Ithaca campus and at Cornell Tech.

Gifts of \$200,000 or more (payable within five years) will be matched 1 to 4. A \$200,000 gift, for example, will be increased by \$50,000 in matching funds. (A \$5 million unrestricted bequest from the late Craig Voorhees '49 – a benefactor of scholarships – made the match possible.)

Barbara Knuth, senior vice provost and dean of the Graduate School, emphasizes that matching funds provide immediate aid while the endowment grows as a permanent source of support.

"It will enable Cornell to live true in perpetuity to our founder's vision of enabling qualified students to attend Cornell, no matter their family's financial circumstances." she says.

To date, 30 donors have committed nearly \$6 million to the endowed scholarship challenge, and almost \$1.5 million in challenge funds have been awarded.

For more information about the challenge, visit giving.cornell.edu/docs/endowed-scholarship-challenge.cfm or contact Allison D. Riley '84 at abd1@ cornell.edu or 607-254-7158.

#### THANK YOU, VOLUNTEERS!

Alumni, parents and friends who volunteer find plenty of company supporting students, raising dollars, and coming together for work and service to the Cornell community and the world. Volunteers promote scores of regional events and connect virtually as well – such as through the 547 volunteers who are part of CornellSocial. Every year, parents step forward, too: in 2017, Parents Committee members numbered 141, with 73 couples.

The first half of the calendar year, in particular, bursts with volunteer activity and awards. The Cornell Alumni Leadership Conference in February was followed by the board of trustees election season, when all alumni can vote for alumni-elected members. The Parents Committee met April 21-22 and the board of trustees is holding spring meetings in May. During National Volunteer Week, April 23-29, Cornell thanked all volunteers near and far and announced winners of the Cornell Alumni Association Cup and the Frank H.T. Rhodes Exemplary Alumni Service Award.

Discover how to volunteer for Cornell through CUVolunteer, an online portal that finds opportunities tailored to your interests, skills, time available and location. **alumni.cornell.edu/volunteer** 



#### RECOMMENDED READ

**CORNELL ALUMNI MAGAZINE** 

An off-Broadway actress who's played the same role for 30 years – missing a grand total of four performances. A former NYPD



undercover narcotics detective turned M.D.-Ph.D. student. A sophomore history major whose political activism has made her a lightning rod on campus and beyond. They're just a few of

the Cornellians featured in Cornell Alumni Magazine's current issue.

There's also a lighthearted look at a particularly endearing way in which some Cornellians have shown their Big Red pride. After hearing about a couple of canines named Ezra, the editors asked alumni to share their university-inspired pet names. From dogs and cats to turtles and fish, Cornellians eagerly sent photos of a menagerie of animals (and some human offspring) that included Lynahs, Baileys, Marthas, Sages – and even a Ruth "Barker" Ginsburg.

Cornell Alumni Magazine – which recently won a national award for its March/April 2016 cover – was founded by alumni in 1899 and has been an independent source of university news ever since. Subscribe at cornellalumnimagazine. com/subscribe.



## A SHOUT-OUT TO PETE AND THE SOUVLAKI HOUSE

Amid the many warm anecdotes and Cornell memories H. Fisk Johnson shared at a university celebration early this year, one stood out as a reminder of the particular power of culinary memory and the importance of sustenance.

Speakers at the Jan. 31 celebration thanked Johnson '79, M.Eng. '80, M.S. '82, MBA '84, Ph.D. '86, and SC Johnson, the family company he leads, for the \$150 million founding gift that endowed the Cornell SC Johnson College of Business (see photo, p. 42). Interim President Hunter Rawlings, President Emeritus Frank H.T. Rhodes and Soumitra Dutta, dean of the new college, addressed the packed Statler Auditorium crowd.

When Johnson stepped to the lectern, he called out a number of people in the room: members of his family, the SC Johnson team, friends, several past teachers and the "whole slate of fraternity brothers" from Chi Psi who came in a show of friendship and support.

And then he drew the audience's attention to Peter Papachryssanthou, retired owner of the Souvlaki House, seated prominently in the front row.

Johnson said: "Then there is Pete – I think I ate 14 or 15 meals a week at Pete's restaurant, the Souvlaki House, and I want to thank Pete for his incredible friendship over the years.

"Let's hear it for Pete and the Souvlaki House! Stand up, Pete!" Johnson continued, leading the Statler Auditorium audience in a round of applause.

Then he leaned close to the microphone.

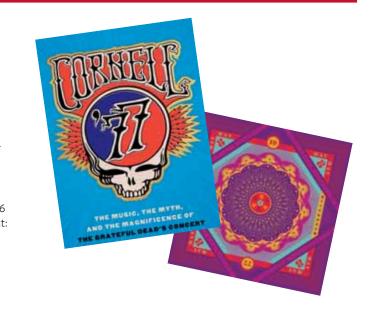
"I highly recommend the large Greek salad with extra feta," he said, to a wave of laughter.

#### BRINGING OUT THE DEAD

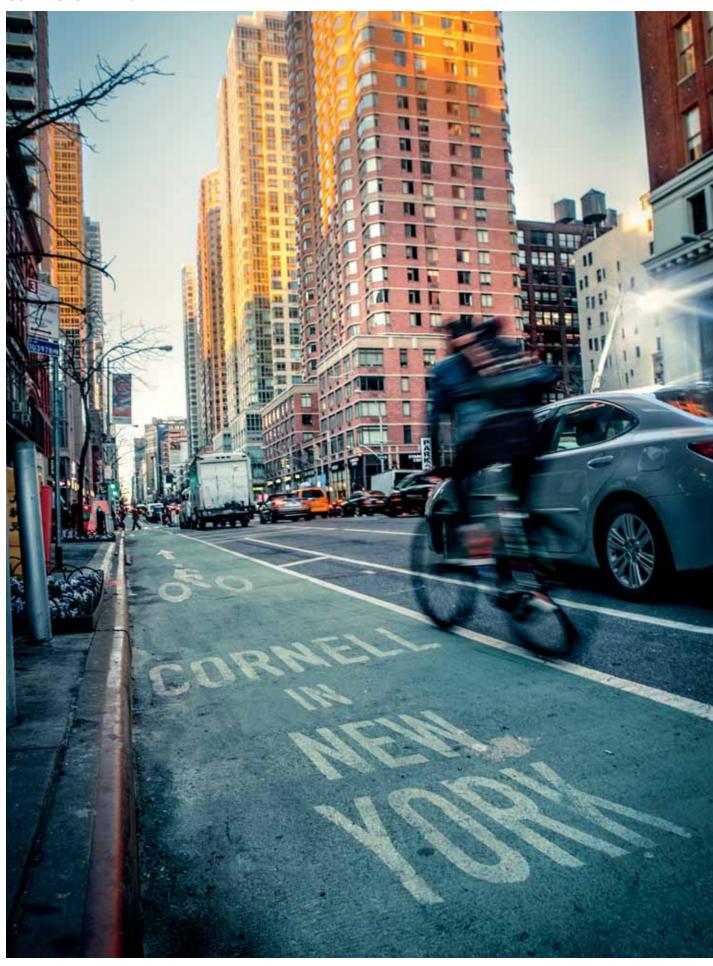
The Grateful Dead's May 8, 1977, Barton Hall concert, legendary among fans and tape traders for decades, is seeing its first commercial release May 5 as a digital download and as three-CD and five-LP sets, "Cornell 5/8/77."

In April, Cornell University Press published "Cornell '77: The Music, the Myth and the Magnificence of the Grateful Dead's Concert at Barton Hall" by Peter Conners. The book was included in Rhino Records' limitededition, 11-disc "May '77" deluxe box set (which sold out in pre-orders) of the Cornell concert and three others from the same week on the band's "Terrapin Station" tour.

The Cornell Chimes also has scheduled a 30-minute Grateful Dead set at 6 p.m. May 8 this year to celebrate the concert's 40th anniversary. (Fun fact: The concert was added to the Library of Congress' National Recording Registry in 2011.)







## A 'STRONGER, MORE HOLISTIC' IMPACT

Through research, outreach and imagination, Cornell is an integral, growing part of New York City's future

Cornell's Ithaca campus and its iconic upstate setting may be what many envision when they think of the university, but Cornell has long had a presence on the cosmopolitan stages of New York City.

The physical Cornell presence best known to those in NYC may be Weill Cornell Medicine (the institution first opened in 1898), but the Big Red footprint is much larger than that, and growing. For decades, Cornell University Cooperative Extension-NYC (CUCE-NYC) programs have improved the lives of city residents in all five boroughs – where just under 20,000 Cornell alumni make their homes.

College of Architecture, Art and Planning students have been studying at AAP NYC since 2006 (see sidebar, p. 16), and the ILR School, with NYC connections dating back to 1948, offers a Master of Professional Studies degree based in Manhattan. The new Cornell SC Johnson College of Business is growing its operations in NYC, including a dual-degree MBA/M.S. program with Weill Cornell Medicine and increasing partnerships with Cornell Tech. Steps away from Wall Street, Cornell Engineering's financial engineering satellite campus allows researchers and students to work on the technology that underpins global markets.

In short, nearly every facet of the university has at least one strong link – a program, an institute, a faculty research project – to the Big Apple.

The lead-up to the historic opening of the Cornell Tech campus this fall on Roosevelt Island has infused a

new energy into this diverse array of programs, according to Jackie Davis Manigaulte '72, senior extension associate and director of community relations with CUCE-NYC and a longtime New Yorker.

"I think we're on the verge of a stronger, more holistic Cornell presence," she says. "There seems to be more synergy, interaction and coordination between the different efforts that are taking place."

Take, for example, last year's Big Red STEM day, an event hosted by Cornell Tech, Cooperative Extension, Weill Cornell Medicine and the city's Department of Education. The event aimed to introduce high school students to aspects of STEM (science, technology, engineering and mathematics) fields, and was staffed by Ithaca faculty and students.

"It was bigger and richer than anything one of our organizations could have done on our own," says Manigaulte. "Efforts like this make Cornell seem real and more accessible to people in the city."

Students pursuing the master's degree in health tech at Cornell Tech's Jacobs Technion-Cornell Institute and enrolled at Weill Cornell Medicine similarly take advantage of the potential of partnerships and collaborations. Students are not only able to take classes at each other's campuses but to share resources, data and space.

"Weill Cornell Medicine faculty have welcomed our students into their excellent courses," says Deborah Estrin, associate dean and professor of computer science, who also directs the health tech program at Cornell Tech; she also is professor of healthcare policy and research at Weill Cornell Medicine. "This cross-campus collaboration is slated to increase as we become geographic neighbors."

Cornell is deeply woven into the fabric of New York City in ways that have changed over time as research, knowledge and societal needs have evolved. Cornell has an impact on the lives of New Yorkers today (as well as people throughout the state, the nation and the world), and shares the entrepreneurial spirit that is driving the city's future.

Much of this research and work has organized itself, formally and informally, around interdisciplinary hubs that draw on the best of Cornell to tackle real-world challenges. Current work includes cutting-edge medical research and outreach; the food system, from farm to fork; and helping to bring citizens into dialogue with their representatives in the city and other levels of government.

"Campus is a state of mind, and New York is very much the Cornell campus," says Sam Bacharach, the McKelvey-Grant Professor of Labor Management who founded the ILR School's Institute for Workplace Studies in the city in 1999. "There's an energy to this place. ... You supplement the intensity we bring to our work in Ithaca with the dynamics of New York, and you've got an unbelievable combination."

Here is a look at three areas where Cornell's research and outreach in New York City address the larger systems involved, broadening an approach that thrives on multidisciplinary strategies to improve lives.



#### HEALTH

#### Personalized diabetes care

Nearly one in 11 Americans suffers from diabetes, the seventh leading cause of death in the country. About 40 percent of the population will develop the disease in their lifetime, most frequently (90 to 95 percent) type 2 diabetes.

Despite evidence that different populations may respond differently to treatment options, current clinical guidelines are still somewhat of a blunt instrument and do not distinguish between patients based on their demographics, medical history or previous treatments.

"The standards of care are basically 'one size fits all," says Nathan Kallus, assistant professor of operations research and information engineering at Cornell Tech, whose research interests include data-driven optimization, decisionmaking, causal inference and machine learning.

With colleagues at MIT, he analyzed data from more than 10,000 type 2 diabetes patients at Boston Medical Center and modeled outcomes under 13 pharmacological therapies. Using this information, the team developed a prescriptive method for personalized type 2 diabetes care based on characteristics such as age, sex, race, BMI, treatment history and disease progression.

In 32 percent of the cases, "the algorithm recommended an alternative treatment from the standard of care," Kallus reports, noting that the subsequent results of that treatment showed a significant reduction in average blood sugar levels.

Because the study offers methodological suggestions, the researchers chose to publish their results in Diabetes Care, the leading medical journal on diabetes, hoping to attract the attention of medical practitioners who will run real-world trials.

This desire to make concrete changes similarly attracted Kallus to Cornell Tech: "First and foremost, I was drawn to the amazing people and research at Cornell University. And in New York, specifically, you can connect with the tech and medical fields to learn from them and teach them about your cutting-edge research in the hope to have a direct impact."

#### **Computational biomedicine**

Every patient's cancer is different. Olivier Elemento, associate director of the HRH Prince Alwaleed Bin Talal Bin Abdulaziz Al-Saud Institute for Computational Biomedicine at Weill Cornell Medicine, hopes to help provide them with highly individualized and precisely targeted treatment.

"We're taking a precision medicine approach," he says of the research that involves a large team across several institutions, including clinicians at Weill Cornell Medicine's Caryl and Israel Englander Institute for Precision Medicine, biomedical engineers at Cornell Ithaca, metabolomics experts at Weill Cornell Medicine-Qatar in Doha, and scientists at the Cornell Tech campus. "It's an attempt to improve how we deliver health care by trying hard to understand the molecular roots of each patient's disease and making a multitude of measurements that predict and help identify the best treatment options for each patient."

#### Cornell alumni in NYC

INTERSECTION: ARTS

#### Jennifer Cecere '73

Artist whose public art appears all over New York City as well as in Newport Beach, California, Long Island City, Cleveland and other places



"New York City taught me that art belongs everywhere. My goal is to reference handicraft in the built environment. The city is a perfect foil for my agenda. I have hung giant doilies in the trees at Socrates Sculpture Park, Long Island City; stenciled Jersey Barriers along the FDR [Drive]; suspended printed construction mesh at the Staten Island Ferry Terminal; and installed 'Double Doily,' a water jet sculpture, at PS1 Greenstreets, Long Island City. The Cornell takeaway I bring to my work is to do more. You can always do more. What's next?"

Elemento works closely with the affiliated hospital, NewYork-Presbyterian/Weill Cornell Medical Center, which provides patient data and samples. Sometimes his team can return treatment recommendations in as little as a week, but building the model on which they are based takes years – and massive amounts of data.

Much of this information stems from high-throughput sequencing, which delivers the makeup of an entire genome in just a couple of days.

"That's a really critical technology that allows us to peer down to the cells and understand what's driving them," says Elemento, who also is the Walter B. Wriston Research Scholar.

Sequencing can help to match mutations in the DNA of cancerous cells to specific treatments and analyze cell RNA to see what genes are expressed in a tumor. It is also being used to monitor patient immune systems in an effort to predict and increase the currently small number of patients who respond to immunotherapy, a new form of cancer treatment that activates the immune system itself to find and kill tumor cells.

Elemento's approach to precision medicine relies heavily on high-performance supercomputing to process these large amounts of data. "But it's only one component," he explains, "because then you have to build predictive models. That's where artificial intelligence (AI) becomes critical."

In this case, AI consists of computer programs sifting through the data to forecast which treatments will be effective in a given patient, based on his or her individual combination of measurements of genetic, physiological and environmental factors. AI also can be used to predict whether or not a patient requires urgent treatment – for example, based on the expression of certain genes, whether a thyroid nodule is likely to be cancerous or benign.

While Elemento estimates the number of patients who have been treated by these methods number fewer than 100, that total is growing quickly, he says: "But even if we help prolong the life of only one patient, it's amazing."

#### Bedbugs

New York City is on the front lines of a war against a horde of tiny but powerful enemies. For nearly two decades, bedbugs have been crawling and biting their way through all five boroughs. While these flightless parasites are not known to spread disease when they feed on human blood, they can afflict their victims with itchy welts, anxiety and sleepless nights.

In this battle, you want Jody Gangloff-Kaufmann on your side. In her capacity as a senior extension associate with New York State Integrated Pest Management (IPM), which reports to Cornell Cooperative Extension, the specialist in community nonagricultural IPM has been advising city officials on strategies to combat the infestation.

"We were definitely the canary in the coal mine," says Gangloff-Kaufmann of the bedbug resurgence that hit the

**Right:** Olivier Elemento, associate director of the Institute for Computational Biomedicine at Weill Cornell Medicine.

**Below:** Jody Gangloff-Kaufmann, senior extension associate with New York State Integrated Pest Management and a specialist in community nonagricultural IPM who advises city officials on strategies to combat bedbugs.





"[The battle to control bedbugs] will be ongoing for the foreseeable future."

Jody Gangloff-Kaufmann

city after decades of only occasional reports (and well before reports rose throughout the rest of the country). She attributes the insects' quick spread to a general lack of awareness in the population and among pest control professionals and, possibly, to the elimination by the EPA of several toxic household pesticides. By its peak in 2010, the city saw a spike in housing violation complaints, wellknown stores and buildings were making undesirable headlines as hosts to the bugs, and numerous hotels faced lawsuits from bite-riddled guests.

In 2009, Gangloff-Kaufmann joined New York City's 10-member Bed Bug Advisory Board, convened by then-Mayor Michael Bloomberg, to issue a comprehensive report on what it called "a pest like no other." Although the city has not implemented all the board's recommendations, such as forming a permanent task force, it has intensified training for agency staff and put up a detailed bedbug information website.

As awareness of the pest has increased – particularly among landlords, who are legally required to treat bedbugs immediately – and more effective pesticides have become available, the number of housing complaints has dropped consecutively for several years (by nearly 50 percent between 2012 and 2016). Periodic spikes in calls to pest control companies, however, show that the battle is far from over. "This will be ongoing for the foreseeable future," Gangloff-Kaufmann confirms. She, for one, continues her outreach by training city social workers, who help protect some of the most vulnerable citizens from the bugs.

#### **FOOD SYSTEMS**

#### The Brooklyn Grange

Among its many assets, New York City boasts the world's largest rooftop soil-based farms. Two and a half cultivated acres – 12 stories above the Brooklyn Navy Yard and at the flagship farm atop the six-story Standard Motor Products building in Queens – form the Brooklyn Grange, which sells more than 50,000 pounds of vegetables per year to community-supported agriculture, local restaurants and the public.

They also serve as a living lab to plant ecologist Tom Whitlow, associate professor of horticulture, and his doctoral student Yoshi Harada.

"Rooftop farming can be the ideal sandbox for precision agriculture," says Harada. Compared with complex in-ground agriculture, the discrete system allows for relatively easy collection of samples, monitoring and experimental manipulations.

As the Brooklyn Grange founders were eager to anticipate and avoid problems before they arose, the researchers launched a series of studies in 2011. Using an "adaptive management" approach, they give ongoing feedback from data collection that allows real-time changes to be made.

To the farmers' relief, Whitlow and Harada have not found any unusual contamination from urban pollution sources – such as vehicle emissions or particulate matter from brake linings – in the soil or vegetables.

They also have been working to optimize the farm's special soil mix to improve sustainable management of water and nutrients. Ideally, it should be lightweight to avoid an extra burden on the rooftop; able to hold enough water for such crops as salad greens and to aid the city in managing runoff during heavy rainfalls; and prevent excessive nitrogen runoff, which can contaminate surrounding bodies of water. One innovation implemented by Whitlow's team has been to substitute coir – a fibrous material from coconut husks with high moisture-holding capacity – for expanded shale in the engineered soil mix.

"We have not solved all problems yet because the system is so novel and still in its infancy," Harada says.

And while funding from such sources as the USDA Hatch program and Cornell's Atkinson Center for a Sustainable Future came to an end last year, Whitlow is pleased with what the project has accomplished: "It really hits all three of our missions – teaching, research and extension – dead center. There is still lots to learn, but we've made a giant step toward improving the sustainability of rooftop agriculture."

#### **Geneva's Food Venture Center**

The Food Venture Center (FVC) in Geneva, New York, has helped many a mom-and-pop enterprise launch its pickles, jams and BBQ sauces from the home kitchen into the commercial market. Take Rick Field, founder of Rick's Picks, who calls the center a "crucial bridge" on his pickle company's pathway from a humble stand at New York's Union Square greenmarket to becoming a national business with major supermarket clients.

An extension program of the Department of Food Science, the FVC currently fields some 1,200 requests per year for its services, which began in 1988. Most of these originate within the state, though clients call in from across the Northeast and beyond.

"We provide assistance to make sure that people entering the marketplace understand the regulations and are able to offer a product that is safe and stable under the conditions that they want to sell it," says Olga Padilla-Zakour, FVC director, professor and chair of the Department of Food Science.

For a fee, the team of five specialists evaluates each client's production process and samples to issue a "scheduled process." This legal document lists all formulations, critical control points, and steps that must be followed and documented. It not only ensures regulatory compliance and safe food for customers but also gives producers confidence in their work: "As a small, one-person operation, I found great solace, support and thorough instruction with the very professional and patient staff of the FVC," says Kerry Cheeseboro, who cooks up "Pop Sauce" in New York City.

The condiment is one of nearly 2,300 products in the New York City area on which the FVC has worked since a client database was established in 2000. Of these, Brooklyn alone accounts for almost half, with more than 1,000 products manufactured by 600 food producers.



Above and right: Atkinson Center for a Sustainable Future faculty fellows joined College of Agriculture and Life Sciences leaders and alumni in June 2016 at the Brooklyn Grange rooftop farm for a farm-to-table dinner and tour showcasing Cornell's work with local food systems and sustainable agriculture.

Below right: Olga Padilla-Zakour is the director of the Food Venture Center in Geneva, New York; she has worked with many New York City-based clients to help them launch their food products from the home kitchen to the commercial market.







# ESTABLISHED AND INFLUENTIAL: AAP NYC, 10 YEARS IN

By Patti Witten



Cornell's College of Architecture, Art and Planning (AAP) enjoys a well-established presence in New York City in both academic programming and the professional practice of its faculty and alumni.

AAP NYC occupies the entire 20th floor of 26 Broadway, a New York City landmark and corporate headquarters of Standard Oil from 1885 to 1956. This location is the setting of many architecture, design and engineering firms whose members are visiting lecturers and critics – many who also are alumni continuing a legacy of involvement shown by others such as M. Arthur Gensler, B.Arch.

'57, Richard Meier '56, B.Arch. '57, and Paul Rubacha '72, MBA '73, who played early roles developing the program.

Gensler, the firm of M. Arthur Gensler, donated its services to design the current facility, customizing it to meet programming needs for all three departments of the college.

Gensler had a summer internship with a New York City architecture firm while he was an AAP student. "I think it's important for our students to find out what they're facing in the real world," he said in 2013. "The New York City program exposes them to a very different world than what they have in Ithaca."

The AAP NYC semester offers a range of student experiences. Graduate students in regional planning and landscape architecture explore planning issues at specific project sites in the city. The bachelor of fine arts semester includes studio, seminar and interdisciplinary and professional practice courses. Undergraduate and graduate architecture students engage in design studios, professional practice and seminars. Bachelor of architecture students may also apply for internships.

During the summer months, AAP's Executive Education Program uses the city as its subject and laboratory. Classes in urban architecture and planning bring professionals together with world-renowned architects in New York City and AAP faculty from Ithaca.

AAP faculty regularly contribute to the cultural life of the city – Jenny Sabin, Carl Ostendarp and Thomas J. Campanella most recently. Sabin, the Arthur L. and Isabel B. Wiesenberger Assistant Professor in architecture, is the winner of MoMA PS1's 2017 Young Architects Program, a designbuild competition for an outdoor concert area at PS1 in Long Island City. (Caroline O'Donnell, the Richard Meier Assistant Professor of Architecture, was the 2013 winner.) Ostendarp, associate professor of art, earned critical acclaim for his solo painting exhibition at a Harlem art gallery. Campanella, MLA '91, associate professor in city and regional planning, was appointed historian-in-residence of the New York City Department of Parks and Recreation in 2016. His hometown also is the subject of his forthcoming book, "Brooklyn: A Secret

Robert W. Balder, the Gensler Family Sesquicentennial Executive Director of AAP NYC, says: "Since its opening in 2006, AAP NYC has become a vital and permanent part of the college's pedagogical framework. Our success has influenced other Cornell colleges as they have begun to learn from our experiences and develop their own New York City facilities.

"But our reach doesn't end with the Cornell community," Balder continues. "AAP NYC has built strong relationships with diverse private, public and civic partners who are directly engaged in the future of the city of New York. Our work has only begun."

"The Brooklyn area has become a very important source of new foods, incubators and commercial kitchens," says Padilla-Zakour, who is excited to be opening an FVC satellite office in the borough with funding support from the College of Agriculture and Life Sciences this May. "We strive to have a much better impact and meet the city's specific needs with more specialized services and training."

#### **Nutrition education**

Zoila D'Pinzón used to indulge in large amounts of bread and rice despite her diabetes – until she took classes through the Expanded Food and Nutrition Education Program (EFNEP) in her Queens neighborhood. "I learned that I could make little dietary changes," she says. "Now I feel great." Five years ago, D'Pinzón came full circle to begin teaching nutrition education classes herself, making her a prime example of the USDA-funded program's success.

For nearly 50 years, EFNEP has targeted low-income families across the nation. In New York City, the College of Human Ecology and Cornell Cooperative Extension bring the eight-week workshop series to 5,000 adults and 3,000 youth every year. It visits such impoverished neighborhoods as the South Bronx and Central and East Harlem, where residents frequently suffer from poor nutrition, chronic disease and obesity.

Working primarily in school settings, 35 educators use hands-on lessons, shared meals and a positive learning environment to convey evidence-based nutrition curricula. Analyses of pre- and post-surveys show that most participants significantly improve their diet (90 percent statewide), frequency of physical exercise (47 percent), food resource management (82 percent) and food safety practices (66 percent).

"What makes our program unique is that we hire what we call 'indigenous educators' or 'paraprofessionals' – people who come from similar backgrounds as our participants," says Carol Parker, CUCE-NYC program leader for the nutrition and health program area. "When we deliver classes, we look for 'spark plugs,' or individuals who demonstrate leadership skills and an interest in serving others."

Among them was D'Pinzón, who – like 90 percent of the program's educators – immigrated to the United States (she arrived from Mexico in 1987). Only a high school diploma is required to receive the comprehensive training that prepares them for working in their communities.

"They really transform as educators, because they become so confident, competent and capable," says Parker, pointing out that several have moved on to other careers in teaching or nursing. Course participants, in turn, are inspired by seeing one of their own succeed and return to help the community. And perhaps they will become the next educators themselves.

#### Cornell alumni in NYC

INTERSECTION: PUBLISHING

#### Rosemary Brosnan

College of Arts and Sciences alumna and vice president and editorial director, HarperCollins Children's Books/Harper Teen



"When I run into someone from Cornell in New York, I feel a connection to Cornell. My favorite Cornell moment in New York City is when I have Cornell externs in and they shadow me. I have hired Cornellians – I currently have a Cornellian as my editorial assistant now. That is terrific!"

COVER STORY



## URBAN DESIGN AND PUBLIC ENGAGEMENT

#### **New York Sea Grant**

Jamaica Bay is an urban estuary at the southern end of the New York metropolitan area. Covering some 10,000 acres, it is home to a rich diversity of wildlife – as well as JFK International Airport.

"It's one of the most unique estuaries I've heard of in the nation, but many New Yorkers really don't know what Jamaica Bay is," says Helen Cheng, coastal resilience specialist with New York Sea Grant (NYSG) in partnership with the Science and Resilience Institute at Jamaica Bay (SRIJB).

The Brooklyn native hopes to change this through her work with those two institutions that focus on science-based outreach to coastal communities. NYSG, a cooperative program of Cornell and the State University of New York, is part of the National Sea Grant College Program run by the National Oceanic and Atmospheric Administration, and SRIJB, a partnership among academic institutions, government agencies, nongovernmental organizations and community groups.

Cheng engages communities through programs on topics that impact them in the dynamic environment of the coast. These include how to live alongside wildlife in the bay and how nature provides resources for hazard mitigation. Oysters, for example, can protect shorelines from erosion. A layperson-friendly podcast series about research around the bay is in the works.

Importantly, communication goes both ways: A series of climate forums is bringing together residents, scientists and decision-makers to discuss climate and weather preparedness for such potentially catastrophic events as the flooding and storm surges brought on by 2012's Superstorm Sandy.

"Getting these groups talking to each other in the same room and working harmoniously for a cause they all share is important," says Cheng, who is taking special care to reach out to communities who may feel disconnected from the rest of the city.

With these efforts, Cheng hopes to have an impact beyond the bay: "People don't realize that New York City is a series of islands," she says. "So how can we use Jamaica Bay as a model of resilience across the entire city?"

#### **Amplifying public participation**

Joshua Brooks, J.D. '15, an eGovernment Fellow at the Cornell Law School, wants to give voters a voice beyond the ballot box. So he has brought the work of the Cornell eRulemaking Initiative (CeRI) – a cross-disciplinary research group among the Law School, the Faculty of Computing and Information Science, and the Scheinman Institute of Conflict Resolution at the ILR School – to New York City.

CeRI has been educating the public and soliciting

#### Cornell alumni in NYC

INTERSECTION: ENTERTAINMENT

#### Sam Gold 'oo

Actor, producer, director and a 2015 Tony Award winner for "Fun Home" and director of the new Broadway production of "The Glass Menagerie"



"I grew up in New York and moved right back here after graduation. So my four years at Cornell were the only years I've spent living anywhere else.

"I feel about that time the way I feel about the pastoral section of a Shakespeare play. The city-dwelling characters can't learn, grow, connect without getting lost in the spiritual idyll of a country setting, where time slows, nature takes over, and the country folk give the city characters some much-needed perspective."

input on the work of federal agencies via the online participation platform Regulation Room for nearly a decade. Now the initiative has introduced an open-source version, SmartParticipation, at the local level to provide feedback to elected officials.

"It helps to equalize underrepresented stakeholders with stakeholders that are arguably overrepresented, such as lobbyists, in a very public and transparent way," he explains.

By making himself "a nuisance in the city for a year," he says, Brooks convinced the New York State Legislature to adopt SmartParticipation as its official comment site on the complex Move NY bill. Proposed by the eponymous nonprofit environmental lobby group, the legislation would introduce uniform bridge tolling into and out of Manhattan and thereby fund an agency responsible for broad aspects of city transportation.

In the meantime, Brooks expects the bill to die in committee for political reasons, but the public has participated via the platform to an unprecedented degree. While the highest number of comments the city had previously received on its old site was 95 (concerning a proposal to lift the ban on ferret ownership in the city), the Move NY bill garnered 145 comments.

"That's really good," says Brooks, who with the CeRI team will synthesize the feedback and present a report on what New Yorkers think about traffic in the city to lawmakers and the public.

His long-term goal is to have SmartParticipation supplement the city's existing rulemaking platform. The signs are hopeful, and interest in using the platform has been pouring in from such institutions as the World Bank and governments as far away as the United Arab Emirates, as well

"Our technological product is outstanding," says Brooks. "Everywhere we take it, people are floored by it. I really want to have any kind of decision-making body that makes rules or laws to adopt [it]."

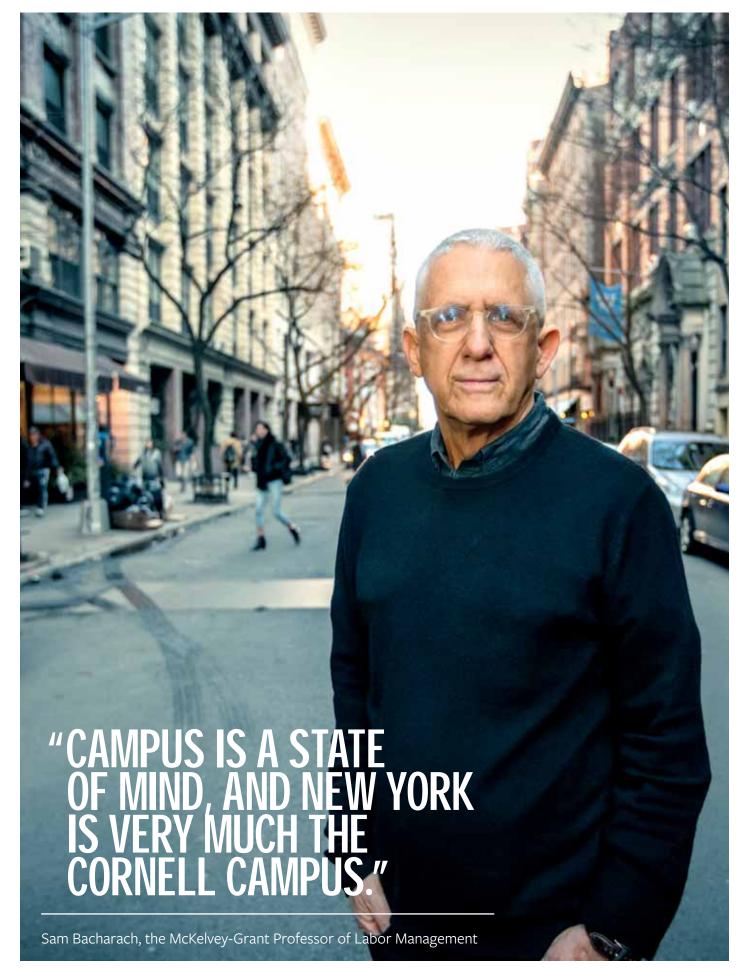
- Olivia M. Hall, Ph.D. '12, is a freelance writer based in Ithaca.

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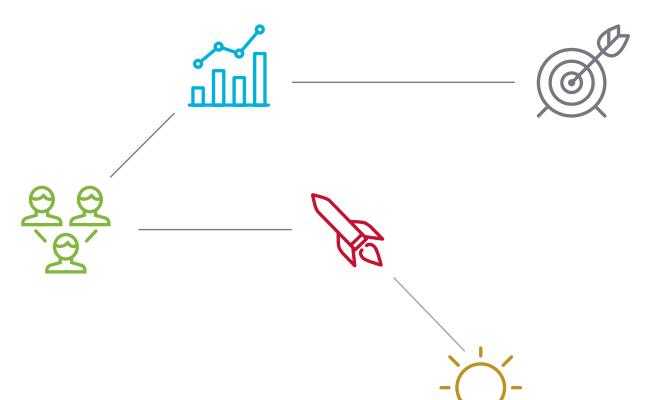
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## **ENTREPRENEURSH**\*P

A developing ecosystem of, through and beyond Cornell

t is not an exaggeration to say entrepreneurship is woven throughout Cornell's academic culture. After all, the university's co-founder and namesake, Ezra Cornell, was a 19th-century entrepreneur who made his fortune in the telegraph business. Today, entrepreneurship is fostered in numerous ways that reflect the university's educational and public service mission

Through research, coursework, fellowships, leadership initiatives, business incubators, community outreach, business plan competitions and more, an evolving entrepreneurial ecosystem has emerged at Cornell. Its reach extends throughout the university, from minds and hubs across the Ithaca campus and into the local community to the entrepreneurial dynamo at the heart of the Cornell Tech curriculum and within the innovations created by Weill Cornell Medicine researchers. Entrepreneurial principles are taught and applied not only to encourage self-empowerment and economic development, but also to seek solutions to pressing social concerns.

#### A two-year transformation

and interdisciplinary ethos.

Mechanical engineering major Caitlin Parrucci '15, M.Eng. '16, has ridden horses since she was a child. In caring for them, she noticed a familiar problem. When a horse is cared for by several people, as is common at larger equine facilities, it's difficult to track how much water each horse consumes. A change in water intake can lead to colic and can indicate anything from stress to kidney failure.

"That's when I decided I would work on a system that would give more information on a horse's health and track it more closely than a human can," says Parrucci, founder and chief executive officer of Stablesense.

She signed up for courses in innovative product design, which gave her what she describes as "the entrepreneurial bug and the bug for product design"; entrepreneurship classes at the Samuel Curtis Johnson Graduate School of Management; and an entrepreneurial finance class in the School of Hotel

Administration. Parrucci built the first prototype of her idea in the Southern Tier Startup Alliance's Hardware Accelerator at Rev: Ithaca Startup Works. (The Southern Tier Startup Alliance is a member organization of business incubators such as Rev, a collaboration of Cornell, Ithaca College and Tompkins Cortland Community College to offer a nonprofit resource for the local startup business community.)

Parrucci presented her idea at an entrepreneurship kickoff event sponsored by Entrepreneurship at Cornell in September 2015, winning the \$1,010 first prize and an invitation to join eLab, Cornell's capstone accelerator program for student startups. During eLab's entrepreneurship celebration in April 2016, she accepted the \$5,000 first prize. Since then, her company was invited to join Rev, and she has rebranded Equine Design as Stablesense, which now has a team of four.

Parrucci believes that Stablesense will be able to start sales of the monitoring system within the next year.

"Two years ago, I did not know what a business model canvas was. I had no idea how to lay out a financial projection or how to go beyond basic stages of 3-D printing a prototype. I did not have a grasp on the marketing process, much less how to reach out to get investment," says Parrucci. "I have been very lucky to meet fantastic people who have been great resources to me and have helped Stablesense at key developmental stages of its journey."

#### **Learning the language of entrepreneurship**

Lance R. Collins, the Joseph Silbert Dean of Engineering, says he has met many doctoral students and graduates who tried to start businesses based on technology they created but failed because they lacked an understanding of business practices.

"It came to me that we should develop programming to help our Ph.D. students become more successful as business entrepreneurs," Collins says.

The Ph.D. Commercialization Fellowship is a sixmonth funded fellowship in which engineering doctoral students get an opportunity to immerse themselves in the commercialization process and potential real-world applications of their inventions. The program supports the fellows through personalized guidance, mentorship and a collaboration with Johnson MBAs, which allows fellows to focus on developing entrepreneurial/business skills that can benefit them in academia, industry or in starting their own company.

"When I first heard about the fellowship I thought it sounded really cool, but my Ph.D. research work has no commercial potential whatsoever," says William Robert Bedell, Ph.D. '17, one of the first six Ph.D. commercialization fellows.

So Bedell looked for a technology to work with during the fellowship and chose infection-free insect cell lines – proprietary lines of insect cell cultures that could serve as the production basis for the first wave of commercial therapies that treat a disease by introducing genes, in the form of RNA or DNA, into a patient's body. Similar gene therapies under development tend to harbor viral infections, which can be costly to remove from the cultures.

The commercialization fellowship experience helped Bedell gain a greater understanding of biopharmaceuticals, the field he wants to work in, but in a business development role, as opposed that of a bench scientist.

"That's a hard field to break into. Most of the people you see in those roles have years and years of experience," Bedell says. "But with the help of the [fellowship] ... I'm a lot closer to getting into a position like that."

Emmanuel Giannelis, the Walter R. Read Professor of Engineering and associate dean for research and graduate education at Cornell Engineering, says a program such as the Ph.D. Commercialization Fellows is about providing expanded educational opportunities for doctoral students.

"Ph.D. programs all go deep into the science and technology and rarely, if ever, consider other questions such as building the business case or prototyping and testing, the kinds of things that are important in order to get the technology to move from the bench to the real world," says Giannelis.

In addition to the Ph.D. Commercialization Fellows, Cornell has joined with the Rochester Institute of Technology and the University of Rochester to create the New York I-Corps Node. In September 2016, the consortium was awarded \$4.2 million from the National Science Foundation Innovation Corps Program to lead entrepreneurship and commercialization support programs targeted at the scientific community through an NSF Node serving the Northeast.

Tom Schryver, MBA '02, executive director of Cornell's Center for Regional Economic Advancement and a visiting lecturer at the Johnson School, directs the I-Corps Node. "Researchers can come up with amazing inventions, but translating them to social and commercial impact requires a different lens – understanding customers who have opportunities enabled and problems solved by these new technologies, and the ecosystems in which these customers operate. I-Corps is a proven method deployed by the NSF to teach researchers about the commercial environment and accelerate startup formation and success."

#### Doing good by doing well

Marya Besharov, associate professor of organizational behavior in the ILR School, defines social entrepreneurship as "pursuing a social mission through a commercial venture." She views it as a window to a broader issue she thinks is important to all types of organizations – whether they are businesses that are created and designed to address a social problem or traditional nonprofit or forprofit organizations – that they "all have this mix of social aims and business aims."

"There have always been social concerns in businesses, and nonprofits have to be financially viable," Besharov says. "I view social entrepreneurship as ... a kind of hybrid



**Right:** Adam Maher '06, M.Eng. '07, founder and president of Ursa Space Systems at Ursa's offices in downtown Ithaca

**Below:** Ken Rother, left, Rev's director of hardware entrepreneurship, and Tom Schryver, MBA '02, executive director of Cornell's Center for Regional Economic Advancement, at Rev: Ithaca Startup Works in downtown Ithaca.





#### **COLLABSPACE: WHERE ONLINE INNOVATION STARTS EARLY**

Recognizing that makers start young, Cornell Engineering has recently undertaken an effort to build an online makerspace for high school and middle school students from around the world. Called CollabSpace, it is currently in beta testing (coeifactorytest. ning.com). There are about 200 members who have a place to post projects, learn a new skill, ask for technical help and even

request the mentorship of a Cornell professor or alumnus.

The space can best be thought of as an online social networking tool where students interested in coding, robotics, autonomous vehicles, rocketry, 3-D printing, sustainability, circuit boards and other technological topics can meet up and learn.

CollabSpace 2.0 is due to debut this spring in response to feedback from current users and updated with new funding provided by the Charles S. and Millicent P. Brown Family Foundation.

of the two, but not completely divorced from traditional businesses and traditional nonprofits."

Many Cornell students are interested in social entrepreneurship, particularly at the ILR School, which attracts students with a "strong social-justice orientation," says Besharov. "But they also need to make a living and are mindful that business has become so dominant in our society, and they are grappling with the question of 'How can I do both?'"

During a summer internship in a rural health clinic in Peru, Lauren Braun '11 came up with an idea that transformed her life and is now transforming the lives of others.

"My job was to go up into these mountain villages with nurses and go door to door looking for moms to remind them their babies were due for vaccinations," Braun recalls.

The Peruvian government provides the vaccines for free, but many were being wasted because mothers in the remote villages often forgot to bring in their children in a timely fashion.

During the last week of her internship, Braun started sketching a design for a bracelet worn by children that would remind the mothers to get them vaccinated. Braun sought input from several of the mothers and nurses, and their responses were overwhelmingly positive.

Braun spent her last two years at Cornell learning how to establish and operate a nonprofit organization. She took courses in social entrepreneurship, women and leadership, and leadership in nonprofits, most of which required drafting a business plan. Braun also sought one-on-one conversations with leaders in the pharmaceutical industry and nongovernmental organizations.

She developed a bracelet that sidesteps language barriers and illiteracy by using symbols to show mothers the vaccinations their children need and numbers to show when they are due. The bracelet is to be worn by a child from birth to age 4 – with the goal that more children will live to age 5 and beyond.

Braun presented her idea in the Entrepreneurship at Cornell's 2011 Big Idea Competition and founded a nonprofit, Alma Sana (Spanish for "healthy soul"), which was awarded a \$100,000 Gates Foundation grant in 2012 for initial field testing. After completing a successful pilot with the health ministries of Peru and Ecuador, Alma Sana is now launching new partnerships with NGOs and governments to deliver the bracelet in Nigeria, Pakistan and Afghanistan, where polio remains endemic.

"I think a lot of millennials relate to this," says Braun. "You want to do something where your time every day is related to a greater mission or purpose."

#### **Untapped resources**

Adam Maher '06, M.Eng. '07, founder and president of Ursa Space Systems, started his company in Silicon Valley and admits that some might think it was "counterintuitive" to move Ursa to Ithaca. A native of nearby Homer, New York, Maher attended an event at Rev during a visit to the area, and it sparked his interest about the Ithaca startup community.

"There's the right culture and willingness to succeed

here in Ithaca that's very important for a startup," he says.

Maher had worked with Mason Peck, associate professor of mechanical and aerospace engineering, when he was at Space Systems Loral and Peck was working with NASA. He talked with Peck about his idea for a geospatial services startup, and Peck told Maher that there was no company like that near Cornell.

Maher, who set up shop at Rev in January 2015, says that conversation told him there were "untapped resources" to take advantage of, particularly Cornell's resources in engineering and a "huge base of talent" from Cornell and other regional institutions.

"RIT is a top school for image science that's just up the road, and there's the Air Force research laboratory in Rome," says Maher. "People don't realize a lot of the advances in radar are done in Syracuse."

Ursa Space Systems' first home was at Rev. However, much more important than real estate is the support Ursa has received from the local startup community and mentors at Rev.

"Being there and being able to interact with mentors every day when we were first starting the company was very valuable for us because they help you in how you think about your business and figuring out how to focus your business," Maher says.

Schryver says that there's always been a level of startup activity in Ithaca and Tompkins County, but there hasn't "consistently been a startup community or ecosystem that people could check into." A goal of Rev is to counteract the narrative that upstate New York is economically depressed, he says.

Many on the Rev team teach entrepreneurship and related topics at Cornell or Ithaca College. Ken Rother, Rev's director of hardware entrepreneurship, runs a summer accelerator program called "Napkin to Prototype," which helps entrepreneurs create businesses centered on physical products; he's also piloting a course on that topic at Johnson and regularly brings the class to Rev to use its prototyping lab.

"We're not there to judge whether they've got a business or not; we help give them the tools so they can judge for themselves," says Rother, who is also one of Rev's four entrepreneurs-in-residence. "If they ... form a business entity, want to come into Rev and we think Rev can help them move along, [our] role is to continue to coach them."

#### **Entrepreneurial generators of innovation**

In New York City, Weill Cornell Medicine and Cornell Tech are both fostering an ecosystem of entrepreneurship and innovation. Weill Cornell Medicine recently launched the Dean's Entrepreneurship Lab, which provides resources and educational opportunities to students and faculty who have ideas with commercial potential that they want to take from the lab to patients.

"During my Ph.D. program, I was struck by how many talented and creative people with really, really great ideas there are here at Weill Cornell," says Entrepreneurship Lab Director Sarah Kishinevsky, Ph.D. '16. "However, as researchers and clinicians, our training focuses on the research process; to translate these inventions to

number of startup companies formed by Cornell Tech students through 2016



Two **eHub** locations, on campus and in Collegetown, are collaborative spaces focused on student businesses.



#### The Cornell **Entrepreneur Network,**

cen.cornell.edu, is the university's business network connecting alumni, parents and friends with each other and Cornell through networking, events and webinars.

patients, we also need to have an understanding of the commercialization process. Through the Dean's Entrepreneurship Lab, we're helping people write business plans, find the right investors, create a company and ... improve their chances of successfully translating their invention to the clinic."

The entrepreneurial culture at Cornell Tech, says Aaron Holiday, MBA '12, Cornell Tech's managing entrepreneurial officer, is integrated into the core curriculum to bring together diverse groups of disciplines in a studio environment. Cornell Tech's Studio Curriculum typically makes up about one-third of the academic experience.

"We break down the iron curtain between business schools and engineering schools," fostering an environment where students from different disciplines work collaboratively, Holiday says.

"In the world we live in today, to build rapidly growing successful companies you need a combination of people to be successful: engineers, domain experts, business experts," says Holiday. "One of the assets that Cornell Tech has is the opportunity to bring people together who may not otherwise come together."

At Cornell Tech, the path to a startup begins in the fall semester in a class called Startup Ideas, which focuses on the process of developing and refining business ideas among an interdisciplinary group of students. Students form teams, and by the end of the class the teams choose one idea to pursue in the Startup Studio class. By the end of the Startup Studio, the teams must have a working product ready, as well as the ability to present it to external people, some of whom are investors.

"Entrepreneurialism is the core of the structure of the program," says David Tisch, a successful tech entrepreneur and head of the Startup Studio. "It's all built around the idea of practical learning and exposure to the thrills and challenges of building something yourself and empowering yourself to start something."

As of the end of 2016, Cornell Tech students had formed 29 startup companies with 62 founders that have attracted investments of more than \$15 million. These companies employ more than 100 people thus far with more than 90 percent located in New York City, says

"I think the world is moving in our direction in the sense that people [can] take more control over their destinies as the barriers to start companies come down," says Tisch. "I think young people have an appreciation for what technology can do. As [Cornell Tech] expands, as more students come in ... our growing ability to create amazing accomplishments coming out of the startup studio more broadly is super exciting."



**Left:** Aaron Holiday, MBA '12, Cornell Tech's managing entrepreneurial officer. Below: Sarah Kishinevsky, Ph.D. '16, director of Weill Cornell Medicine's Dean's Entrepreneurship Lab.



"... we're helping people write business plans, find the right investors, create a company and ... improve their chances of successfully translating their invention to the clinic."

Sarah Kishinevsky





#### **NEUROCHEMICALS ON THE MIND**

Students surreptitiously texting from the back of the classroom – while half-paying attention to the lecture – probably think professors don't know what's going through their minds.

Eve De Rosa, associate professor of human development and an expert in the neurochemistry of cognition, knows precisely what's coursing through those multitasking brains: the neurochemical acetylcholine.

As De Rosa explains: "Acetylcholine is best known for its role in Alzheimer's disease, but we're learning more about its contributions to cognition in people of all ages."

"The guiding hypothesis for the work I do," she adds, "is asking whether something like Alzheimer's, generally thought to be a memory disorder, is actually an encoding disorder, with information not getting 'packaged' and not reaching memory centers of the brain in the first place."

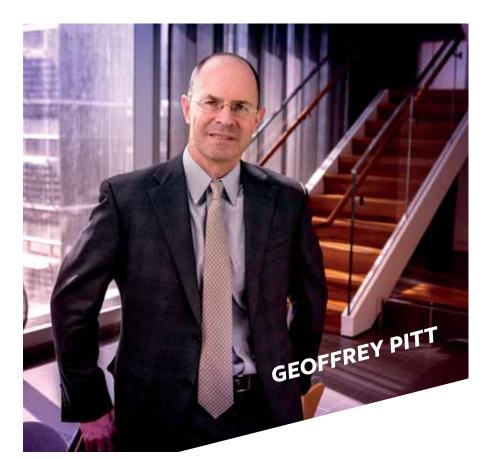
De Rosa came to Cornell in 2013 and says that from the start, she could detect a certain "collaborative energy" in the air.

"I'd been at University of Toronto for a decade when I guest lectured ... [for] researchers in the Department of Neurobiology and Behavior," she recalls. "A few weeks later, faculty from human development contacted me and said, 'Have you ever thought of moving?""

De Rosa's teaching responsibilities include pre-med courses, like
Neurochemistry of Human Behavior.
Among her collaborators is spouse Adam
Anderson, also an associate professor of human development and a neuroscientist specializing in the role of emotion in human faculties.

Their research project? How the heart and mind are connected through chemistry – which has led to further collaboration, with electrical and computer engineering's Bruce Land.

- H. Roger Segelken



"I've always felt strongly that basic and translational work leads to the foundation for future therapies."

Geoffrey Pitt

#### CARDIOVASCULAR RESEARCH PIONEER

Despite recent advances, cardiovascular disease remains the leading cause of death worldwide, killing 17 million people each year. But Dr. Geoffrey Pitt, director of Weill Cornell Medicine's new Cardiovascular Research Institute, is leading a massive clinical and research effort to change that.

Pitt is a forward-thinking clinicianscientist who was recruited to Weill Cornell Medicine as the Ida and Theo Rossi Distinguished Professor of Medicine. He's charged with hiring and leading a team of about 60 scientists who will conduct basic and translational heart research to improve outcomes for people who have experienced heart attack, stroke, high blood pressure or another serious cardiac condition.

The goal is to take areas of investigation that are at the most basic level today – like figuring out how to turn stem cells into heart cells so that they can be used to repair heart attack damage, or determining why the use of targeted cancer drugs often results in cardiovascular side effects – and move them toward a place where they're valuable to the people who need them.

"I've always felt strongly that basic and translational work leads to the foundation for future therapies," says Pitt, who also is a cardiologist at NewYork-Presbyterian/ Weill Cornell Medical Center.

As he builds the Cardiovascular Research Institute with a focus on leveraging Weill Cornell Medicine's expertise in areas like precision medicine and cancer research, Pitt also will continue to pursue his work on the genetic and molecular basis of irregular heartbeat, called arrhythmia biology.

His basic research in this field already has led to significant advances in understanding the root cause of arrhythmias, which might be translated to help treat patients with heart valve problems.

"Coming to Weill Cornell Medicine has given me this great opportunity to build an interdisciplinary team in a much-needed area," he says. "My goal is for us to make serious contributions to the newest and most exciting areas in cardiology."

– Anne Machalinski

#### CONFLICT-OF-INTEREST CONTRADICTIONS

Financial advisers or physicians who disclose conflicts of interest with their products or services are more likely to give biased recommendations to their clients. And clients who receive such disclosures may be more likely to follow that biased advice.

While those conclusions may contradict conventional wisdom, they illustrate the unintended consequences of conflict-of-interest disclosure, according to research conducted by Sunita Sah, assistant professor of management and organizations in the Samuel Curtis Johnson Graduate School of Management.

As a former physician and consultant in the pharmaceutical industry, she has a distinctive perspective on the nature of medical conflicts of interest. Sah, who grew up in England, became a doctor, but quickly realized that clinical work would not be her life's passion.

In London, she earned an MBA and began working for a company focusing on pharmaceutical marketing. Sah studied how certain messages from those companies changed physicians' prescribing behavior.

Sah decided to pursue a Ph.D. in organizational behavior. "I really became interested in how physicians make decisions and the rationalizations they use in order to accept gifts and compensation from the pharmaceutical industry," from free meals and travel to sponsored research, Sah says.

Her first paper described how junior doctors who were reminded of the sacrifices they had made to pursue their medical education were more likely to justify accepting pharmaceutical gifts.

In her current research, Sah is examining why managers who rate themselves highly on objectivity and impartiality are actually more likely to accept gifts that could compromise their decision-making.

"It is precisely those who believe they are the least vulnerable and most professional who are more likely to accept conflicts of interest," Sah says. "They demonstrate increased bias with a lack of awareness of being biased."

- Sherrie Negrea



"They demonstrate increased bias with a lack of awareness of being biased."

Sunita Sah

#### **STUDYING THE IMPACT OF LAYOFFS**

Most of the millions of people laid off in the past 30 years have gone on to other jobs, says Paul Davis, assistant professor at the ILR School and a human resource management expert.

Yet, virtually no research has examined the consequences of these layoffs on their victims' future work behaviors.

In his research, Davis examines reactions to layoffs, hoping to shed light on the long-term labor market impacts of an economy in which layoffs have seemingly become status quo.

In a first step toward unpacking how layoffs impact the broader American labor pool, Davis, along with colleagues Charlie Trevor, Ph.D. '98, of the University of Wisconsin and Jie Feng of Rutgers, studied the employment patterns of a national sample of U.S. layoff victims.

Their conclusion? Layoffs encourage quitting.

Individuals are 65 percent more likely to quit a job that follows a layoff, according to their research. And, for those who have been laid off multiple times, quitting can be up to six times more likely.

Although workers may face lower pay, fewer hours and depressed job satisfaction in post-layoff employment, it is not declining job quality spurring them to quit. Davis, instead, points to an altered sense of loyalty.

"Layoffs weaken the psychological tethers that bind individuals to future employers, freeing an otherwise contented employee to pursue better job opportunities," he said.

Conceding that employee replacement costs can be significant, Davis nevertheless cautions executives and other managers against shunning job applicants who have layoffs in their past.

Davis, who came to Cornell in 2015, has spent five years studying how layoffs affect workers and organizations.

"With the entirety of the ILR School faculty focused on work, employment and labor policy, I cannot imagine a better home for a human resource management scholar," he said.

Trevor isn't just a colleague; he is Davis' mentor and "received his education here at ILR, so I have firsthand experience with the impact our graduates make," Davis said. "To now be in a position to help develop those future leaders is a real privilege."

- Mary Catt





Left: A group of Cornell Tradition fellows at a nature reserve in Nicaragua as part of the Cornell Commitment's annual winter service trip in January.

Below: Cornell Tradition fellow
Suzannah Bretz '17, center, along with other fellows, sells raffle tickets at a Big Red hockey game at Lynah Rink.

Bottom right: Cornell Tradition fellow Kierra Grayson '19 with children in Nicaragua during the winter service trip.



"Even an hour or two can really make a difference to others."

Suzannah Bretz '17





# Doing good while doing well

#### THE CORNELL TRADITION'S SILVER THREAD

By Diane Lebo Wallace

n 1982, entrepreneur and philanthropist Charles F. Feeney '56 started with a simple, powerful idea: help Cornell students help themselves, while also helping others. As The Cornell Tradition celebrates its 35th anniversary and a new \$7 million gift from Feeney's Atlantic Philanthropies, the fellowship program continues to flourish.

Early on a chilly Saturday morning in December, Cornell Tradition fellows gathered before finals for the Tradition's annual Season of Service, creating gifts to lift spirits among local emergency workers and children in need.

One month later a contingent of Tradition fellows flew to Nicaragua as part of the Cornell Commitment's annual winter service trip. For one week, they helped children by volunteering in schools, and improved food security and sustainability by working on a local farm.

As they fan out to serve others across campus, throughout Tompkins County, in their hometowns and internationally, Tradition fellows – some 500 every year – also maintain satisfactory grades and work on campus to help pay for their education, with their wages supplemented by a Cornell Tradition subsidy.

They are supported by fellowships that offer financial assistance and access to a community that fosters their personal development and leadership skills and connects them to service opportunities.

"The Cornell Tradition remains an innovative and unique model for recognizing students for their commitment to paid work, service and academic excellence," says Suzanne Horning, Cornell Tradition coordinator. "Today it stays true to its founding purpose."

By any measure, Tradition fellows are exceptionally motivated and dedicated. How do these students do it all, and how does the program stay vibrant year after year?

Cornell Tradition fellow Suzannah Bretz '17 jumped into service her freshman year through the Public Service Center's Pre-Orientation Service Trips. As a Gold Award-achieving Girl Scout in high school, she already was committed to service, a criterion for Tradition fellows. Since then she has participated in scores of on-and off-campus projects – from selling benefit raffle tickets at hockey games to volunteering at local charity and community events.

"Even an hour or two can really make a difference to others," she says. "Whether you are a college student or a member of the community, I think it's important to give back."

Bretz has worked as a teaching assistant in four School of Hotel Administration classes and in the Cornell Commitment office, used fellowship funds to expand her summer internship possibilities beyond her small Ohio hometown to those

## The Cornell Tradition THIRTY FIVE YEARS OF IMPACT

2.8 million

Number of service hours contributed by fellows

5,500

Number of fellows since 1982

\$41million

Amount awarded through loan relief

Number of countries fellows have served in



**\$40 million:** Amount in gifts from Atlantic Philanthropies (AP)



**250 hours**: Minimum number of work and service hours performed by each fellow each academic year



**308:** Number of fellowships established by AP and other donors for financial-aid eligible students

Annual number of students designated as Cornell Tradition fellows

Fellowship Benefits

\$4,000

Maximum amount of loan relief per fellow, per academic year



Membership in a unique community of civically minded students

\$3,500

Amount of student support awarded to each fellow

in larger cities, and chaired Tradition's Student Advisory Council. Knowing that it can be challenging to navigate Cornell and meet Tradition fellowship requirements, Bretz launched a peer-to-peer effort for advisory council members to help guide newer fellows.

"What I often tell fellows is that Tradition doesn't really require you to do anything other than what you've already been doing. Tradition just wants to help you continue that while you are at Cornell. ... There are not a lot of programs out there that do that."

Bretz speaks enthusiastically about The Cornell Tradition's impact, and her enjoyment is evident – so much so that she is considering ways to build on her leadership experiences with students after she graduates, extending the program's tradition of generosity.

"Cornell Tradition fellows are passionate about whatever it is that they are involved in," she says. "What's so cool is that we can touch both the Cornell community and the greater community, domestically and internationally. Cornell Tradition fellows are motivated to make change."

Horning calls that drive to do good "the silver thread." To her, this thread runs through all 500 Tradition fellows each year across all seven undergraduate colleges.

"The Cornell Tradition is a great expression of the university's land-grant mission – of giving back and being engaged," she says. "These 500 students do great things."

Part of the beauty of the program, she emphasizes, and an important factor in its continuing success, is the Tradition's flexibility and responsiveness, which "allows the program to stay relevant and endure."

In 2004 the Cornell Commitment office offered an additional benefit to Tradition fellowships: student support accounts of \$3,500 for each fellow over four years to help students tap new opportunities and pursue unexpected directions through summer internships, international travel for service, or service-related expenses.

Horning notes that some pre-vet fellows have chosen to apply their funds to international travel costs to gain experience working with large animals. One student spent a month nursing a baby rhinoceros in South Africa, an experience that confirmed her career choice of veterinary medicine. Another student traveled to South America to volunteer with an orphanage and discovered he was good at teaching children.

"In this way," Horning says, "The Cornell Tradition pushes boundaries for students, opening doors to unimagined possibilities."

"Looking ahead, we would love to see more alumni engagement," she says. "We know from many Cornell Tradition alumni about how much the program meant to them, and alumni are out in the world doing great things. For our fellows, connecting with alumni, finding mentors, thinking about how they might continue their passion for service while working full time can be very meaningful."

For more information and to get involved, visit commitment.cornell.edu/tradition or contact Suzanne Horning at sah48@cornell.edu, 607-255-8595.



#### A ROCK-SOLID FOUNDATION

Atlantic Philanthropies, the limited-life foundation established by the self-effacing, but extraordinarily effective, entrepreneur and philanthropist Charles F. Feeney '56, made its final gift to Cornell in December 2016: \$7 million toward the endowment of The Cornell Tradition to ensure its impact endures for future generations of Cornell students.

The grant creates the Frank H.T. Rhodes Fund for The Cornell Tradition and expands the foundation's total support for the program to more than \$40 million.

The conclusion of The Atlantic Philanthropies' grantmaking brings the foundation's total support for Cornell to nearly \$1 billion over 35 years, funds that have transformed the Ithaca campus and allowed the university to build Cornell Tech in New York City. Atlantic has granted another \$7 billion around the globe, advancing education, research, medical care, human rights, and programs that serve children, the elderly and the disadvantaged.



#### **GROWING FORWARD:** CORNELL'S UNIQUE LIVING COLLECTIONS

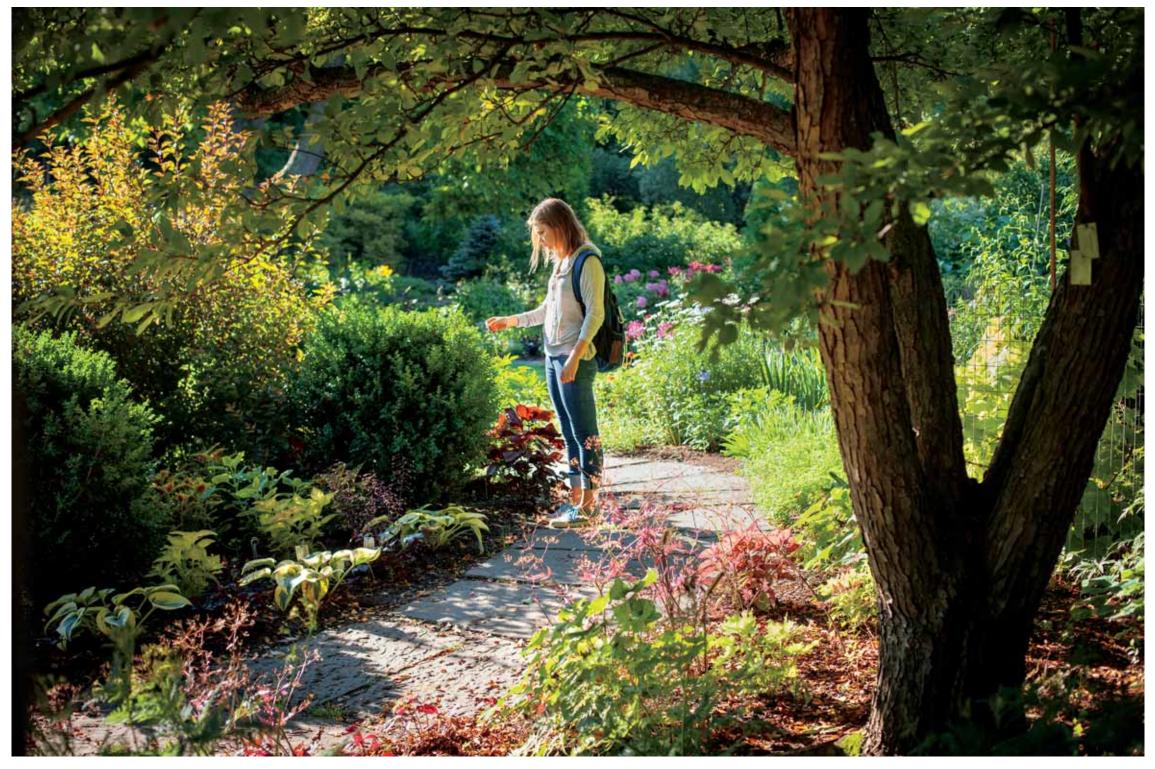
ascadilla and Fall Creek Gorges, Beebe Lake, Comstock Knoll, F.R. Newman Arboretum, the Robison York State Herb Garden and Mundy Wildflower Garden - these are just a few of the iconic landscapes that distinguish the campus and are treasured by Cornellians and Ithacans alike. Now with a new name and broader mission, Cornell's living museum of plants is gaining international accolades for its horticultural beauty and its leadership in environmental conservation and

Last fall the board of trustees officially approved Cornell Botanic Gardens as the new name for the university's worldclass arboretum, gardens and natural areas, originally called the Cornell University Arboretum and known since 1944 as Cornell Plantations. Christopher Dunn, the Elizabeth Newman Wilds Executive Director, views the change as an opportunity to promote and strengthen the relevance of this distinctive university asset and its mission, "to inspire people – through cultivation, conservation and education – to understand, appreciate and nurture plants and the cultures they sustain." He envisions deeper engagement with students and faculty as Cornell Botanic Gardens focuses on addressing and interpreting important issues, such as climate change, biocultural conservation and other critical environmental

Earlier this year BestMastersPrograms.org ranked Cornell Botanic Gardens among the world's 50 most stunning university gardens and arboretums. By size, Cornell Botanic Gardens is among the top five public gardens in North America. Its living collections number more than 50,000 plants in the arboretum and cultivated gardens, and include specialty collections of herbs, native plants, rhododendrons, conifers, maples, oaks and flowering trees. The Botanic Gardens also stewards 44 preserves totaling more than 3,400 acres with 40 miles of public trails, including the gorges that cradle the campus, Beebe Lake and surrounding woodlands, and other natural areas scattered throughout Tompkins County. These holdings represent the full range of ecological communities found in New York's Finger Lakes region, and a number of preserves are home to rare and endangered plants. Botanic Gardens staff collaborate with conservation organizations, such as the Center for Plant Conservation and the U.S. Forest Service, to protect and preserve this regional biodiversity. Opportunities for learners of all ages, including Cornell students, are numerous at the Botanic Gardens. The cultivated and natural collections are used daily by Botanic Gardens staff as well as faculty instructors and community educators to

Cornell Botanic Gardens is open year-round, free of charge, and welcomes more than 70,000 visitors annually.

– Beth Anderson





**Above:** The Young Flower Garden highlight plants of cultural significance. Left: The Bioswale Garden is as hard-working as it is beautiful, and one of the key landscape features that helped earn Gold LEED certification for the Nevin Welcome Center at Cornell Botanic Gardens.



Left: The Robison Herb Garden in the heart of Cornell Botanic Gardens is its oldest and most frequently used garden. Right: Best College Reviews named Newman Arboretum as No. 1 in their 2015 list of "The 50 Most Beautiful College Arboretums."



**Below:** From left, professors Donald Kenkel, policy analysis and management, and Patrick Stover, nutritional sciences; Alan Mathios, the Rebecca Q. and James C. Morgan Dean of the College of Human Ecology; and human development professor Valerie Reyna.



"Endowed professorships to me are the gold standard in philanthropy because they allow us to retain and recruit top faculty."

Alan Mathios, the Rebecca Q. and James C. Morgan Dean of the College of Human Ecology

#### JACOBS CHALLENGE CREATES FOUR ENDOWED CHAIRS IN HUMAN ECOLOGY

By Sherrie Negrea

- from prescription drugs or heroin, federal statistics show.

While this national epidemic seems to be spiraling out of control, Valerie Reyna, professor of human development in the College of Human Ecology, has been working with other scholars on a federal

very day, 91 Americans die of an opioid overdose

Ecology, has been working with other scholars on a federal panel to apply scientifically based strategies to address the crisis.

Reyna's research examines the most vulnerable period for developing addictions and other unhealthy behaviors – adolescence. Her new focus on the mechanisms that may drive addiction will become an easier frontier for her to explore since she has received one of four faculty endowments created through a fundraising challenge for the college.

"This will allow me to innovate more and take risks with my work and feel that I have stable support for that," says Reyna, a neuroscientist who has been elected to the National Academy of Medicine, which appointed the committee on prescription opioid abuse last year.

The endowed professorships were established through a challenge grant initiated by longtime Cornell benefactors Joan Klein Jacobs '54 and Irwin Mark Jacobs '54, founding chairman and CEO emeritus of Qualcomm, as part of a \$10 million commitment to the college in 2014. The gift – the largest in the college's history – included \$6 million to inspire other donors to create four \$3 million faculty endowments that would be matched on a one-to-one basis by the Jacobses.

"Irwin and I believe strongly in Dean [Alan] Mathios' vision for greater integration of the curriculum, broader collaboration between Human Ecology faculty and their counterparts throughout Cornell, and a new level of impact within and outside of the university," Joan Jacobs says. "Our philanthropy is very focused on improving lives through education and research, and we were delighted in this collaboration to support our alma mater – and my college."

Three donors responded to the challenge, establishing four new named professorships: Janet K. Lankton '53 and Gordon B. Lankton, M.Eng. '53, former chairman of Nypro, who endowed two positions; Lois M. Tukman '62

and Melvin Tukman, president and director of Tukman Grossman Capital Management; and Lee Cheung ("L.C.") Lau, founder and chairman of EPRO Development Group and a founding member of the Cornell Institute of Fashion and Fiber Innovation.

"The Jacobses' challenge grant afforded us the opportunity to endow a professorship, which was something we hadn't considered," says Lois Tukman, who earned her degree in child development at Cornell. "They made us stretch. The challenge was a brilliant strategy to leverage their gift."

The Tukmans will endow the professorship for Reyna, whose research focuses on healthy decision-making from childhood to adulthood. The Lanktons' gift will support two faculty members in public health and nutrition – Patrick Stover, director of the Division of Nutritional Sciences at Cornell, and Ross Hammond, a senior fellow in economic studies at The Brookings Institution, who will join the faculty this summer. Lau's donation will fund a professor in fashion and technology who will be hired later this year.

"Endowed professorships to me are the gold standard in philanthropy because they allow us to retain and recruit top faculty, which drives student success, research success and the success of the college," says Mathios, the Rebecca Q. and James C. Morgan Dean. "The college could not have this level of faculty without this type of support."

In addition to the \$6 million in matching funds, the Jacobses donated \$4 million to endow the Joan K. and Irwin M. Jacobs Professorship in the College of Human Ecology, held by Donald Kenkel, a health economist who studies the regulation and taxation of tobacco products. The Jacobses also funded a fellowship to support a graduate student to work with Kenkel.

Because of the funding, Kenkel said he has been able to expand his research into a new area – the health impact and regulation of electronic cigarettes. "The big advantage is the availability of support to explore new ideas, like electronic cigarettes, without the time delays and other things that happen if the resources from the chair aren't available," he says.

## YOU **CAN MAKE** IT HAPPEN SPRING 2017

#### **Public Interest Fellowships for** law students

Each summer, nearly half the rising second-year class and a portion of the rising third-year class at Cornell Law School gain real-world legal experience and make a difference working in unpaid positions for public interest organizations, government agencies or judges. Public Interest Fellowships help to offset the costs students incur by taking this volunteer work. Fund one student: \$1,600

#### A house for a telescope

The Department of Astronomy needs to prepare its new 20-inch telescope for research. The telescope must be shipped to Ithaca, where senior undergraduates in astronomy, physics and mechanical engineering will develop an enclosure and work on automating it for remote operation. \$20,000

#### Climate change garden

Cornell Botanic Gardens' Climate Change Garden, the first of its kind, demonstrates the effects of climate change on garden plants. \$5,000-\$20,000

To make a gift, or for more information about these and other giving opportunities, email MakeltHappen@ cornell.edu.

#### **Eating habits study**

Faculty and students in the Department of Neurobiology and Behavior are gaining insights into the genetics and neural circuit mechanisms of eating disorders by observing the eating habits of fruit flies. Help them expand this pioneering work on obesity, diabetes and anorexia by funding a laser cutter and a 3-D printer, which will allow the researchers to build behavioral and imaging chambers for the flies. \$25,000

## THANK YOU! YOU MADE IT HAPPEN

You came, you saw, you gave ...

Thank you, Ezra readers and other alumni, parents and friends, for matching your generosity with these special opportunities.



#### A gift to performance

Film and TV composer David Lawrence and lyricist Faye Greenberg gave a gift to the Department of Performing and Media Arts for productions at the Schwartz Center for the Performing Arts. Their daughter, Mabel Lawrence '19, is studying engineering en route to becoming a set designer.



#### So buff

Bob Blakely '63, MBA '65, and his wife, Pinky Keehner, supported the restoration, in summer 2016, of "Herakles in Ithaka I," the iconic sculpture at the entrance of the Statler Hotel.

#### New tools for sharp students

Barbara Hankins '54 made a gift to the machine shop in Rhodes Hall after reading about the need in Ezra. The gift is in memory of her late husband, Philip C. Hankins '52, who majored in mechanical engineering and worked as a teaching assistant in the machine shop. "My husband and a partner built a working steam car for their senior project," Hankins remembers, "so he spent many hours in the shop."





y motivation to pursue engineering and business at the graduate level stems from two disparate yet equally important childhood experiences: being raised by a salsa singing, mechanical engineer father, and growing up in an unstable country, Venezuela.

My father planted the seeds of engineering, business and artistry early in my life as tools to achieve any career goal. During this time, I lived firsthand through Chavez's socialist revolution, which resulted in severe economic deterioration and grave social insecurity. The dangerous condition of my home country was the push I needed to apply to top engineering schools abroad in search of a brighter future.

Now having lived in New York and in the United States for more than 10 years, first as an undergraduate studying mathematics at MIT and later working as a trader at JPMorgan, I finally discovered an institution that could satisfy my intellectual curiosity and entrepreneurial itch to grow my thought capacity exponentially - and that was Cornell Tech.

Cornell Tech's impact on my life, as well as the impact that my fellow colleagues (and now partners in business) had on me, has been tremendous. We were a part of the M.Eng. beta class those early adopters who see the potential before others see it.

I was first struck by Cornell Tech's different approach to evaluating incoming students for their engineering program. They understood that any person with a background in science could learn how to study computer engineering, even without the formal undergraduate degree. This, I thought, was a different way of thinking, a younger and dynamic mentality that reflected how the greatest companies today think about skills and hiring great people.

During my first few months at Cornell Tech, I met incredible students and faculty from all different backgrounds – academic and skill related – who all shared the common goal of making our NYC community and the products and services that cater to it stronger through technology.

My time at Cornell Tech was one of pure creativity, openness, learning, joy and inspiration. I got an education not only in relevant computer science practices but also on product management and idea iteration. It was late in the fall semester when my partners and I started to think about the idea for what became our current company, Trigger.

Trigger is an award-winning, mobile-first investing platform that helps remove emotion from the investing process by investing through simple "if this, then that" rules. Users link their existing brokerage accounts and set if/then rules around the portfolio and on a wealth of unique data sets, to trade when triggered.

Through the Startup Studio in the spring semester, we got the opportunity to work on our idea - prototyping, creating a business model, customer development and how to pitch our idea to a large audience. We won a Startup Award, and Cornell Tech gave us the support we needed to go out into the wonderful world of entrepreneurship. Being exposed to all kinds of industry leaders and their experiences via the weekly Conversations in the Studio seminar also helped me learn from their mistakes early on and try to incorporate their tactics of success at Trigger. Those lessons led us to win startup competitions, have tens of thousands of customers using our product, and speak with some of the most respected journalists about our mission and

The future of any organization always relies on the people who work to support it. Cornell Tech has the ability to attract a wide array of thought leaders - the kind of people who want change, who want NYC to be a leader in tech, who want diverse groups of people working on challenging ideas.

In an environment where political instability in our country is growing - and reminders of my childhood's nation are ever more present – it is important to invest and support those institutions that put people first. That is why I believe Cornell Tech will be the biggest driving force for change NYC has ever seen.

Rachel Mayer, M.Eng. '15, is the founder of Trigger, www.triggerfinance.com.







## Reunion

June 8-11, 2017



## We're coming full circle!

Register today, and see you on the Hill! alumni.cornell.edu/reunion