EZRA

CORNELL UNIVERSITY'S MAGAZINE EXTRA

This special section, a bonus issue of the university's Ezra magazine, highlights ways Cornell initiatives intersect with philanthropy and engagement of Cornell alumni, parents and friends.



VICE PROVOST IS BUILDING CULTURE OF ENTREPRENEURSHIP AND INNOVATION

Emmanuel Giannelis is the Walter R. Read Professor of Engineering and has served as Cornell's vice provost for research and vice president for technology transfer, intellectual property and research policy since July 2017.

With a mission of advancing and supporting Cornell research, entrepreneurship and technology commercialization, Giannelis' office also promotes research and innovation across Cornell's Ithaca and NYC campuses.

The full conversation is available at news.cornell.edu/ GiannelisQA.

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"BY BECOMING INVOLVED, [STUDENTS AND POSTDOCS] ARE REALLY EXPOSED TO INNOVATION AND ENTREPRENEURSHIP THAT CAN SERVE THEM WELL IN THE FUTURE."

- Emmanuel Giannelis

You've been in this role for two years; how well is Cornell integrating and promoting research across its campuses?

First of all, let me say it's really an honor, a privilege, to be a part of the leadership team, and also to represent all these brilliant star faculty members.

In an interesting way, I have two roles – one is vice provost for research, and my portfolio covers the Ithaca campus and Cornell Tech. As vice president for technology transfer, I also oversee all intellectual property (IP), including that which comes out of Weill Cornell Medicine.

One of the challenges is, even though we are distributed geographically, how do we bring these teams closer together? We have strengths in many, many different areas, and bringing them together, and finding those synergies, is actually what distinguishes us from other universities. We have the Ithaca campus, but also, in New York City, we have a medical school and now Cornell Tech – and those kinds of combinations are not the kinds that you find every day with our peer institutions. Leveraging those combinations is actually one of the strengths of Cornell.

What challenges, or surprises, have you found in this position?

The first thing I found – despite my numerous roles in the College of Engineering and being on the faculty since 1987 – was how little I knew about what is going on at Cornell. There are gems all over the place that I was not that familiar with. This job will be a learning experience even as I complete my five-year term.

But it's not just getting to know the faculty and the research areas; there is also getting to know our staff, including the staff who work with all the research centers in our portfolio. And that's a large number of people – more than 700.

As I was first thinking about this position and looking at it from the outside, I thought we needed to provide programming that allows our faculty and students to pursue their

entrepreneurial interests and also to increase our interactions with industry. What surprised me was that while we have been making progress in providing this new programming (such as the GateWay to Partnership initiative and the Fast Track Startup License program), not all of our faculty, students or potential corporate clients have noticed. So it has been at times harder to market these programs than to establish them.

How important is our interdisciplinary research, and what are we doing to elevate the social sciences and humanities?

To have interdisciplinary research, you have to have strong disciplines. When we talk about bringing people from different fields together, it goes without saying that we really care first about the disciplines themselves. So we're leveraging the strengths in the disciplines by cross-catalyzing collaborations between them.

I come from the physical sciences and engineering fields. I've been at Cornell for 32 years, and as a faculty member, I know that within these fields, these cross-collaborations are fairly easy. There is a network of faculty, there are research centers, and it's natural for faculty to come together and propose new ideas. To an extent this is also true in the life sciences. It will be extremely valuable to bring to the table social scientists and others, and then start approaching these collaborations from even more sides.

I like to think of my portfolio as representing not just research, but research and scholarship. And so I represent not just the physical scientists and engineers and life scientists, but also the social scientists and those in the humanities and in the arts. There are different needs and different challenges, but they are all part of the same portfolio and, since I care about all these fields, I want to represent them and nurture them as well.

Specifically for the social sciences, the provost established review committees, and one of the recommendations that we are implementing



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\$1B

What Cornell spends on research each year (as of 2016-17); the university receives nearly \$700 million of that annually from federal and state sources right now is creation of the Cornell Center for Social Sciences.

We already have several independent units that are providing research support and promoting interdisciplinary research in the social sciences; we want to bring that all under one umbrella. The new center will comprise all the social sciences units that are part of the vice provost for research portfolio, such as the Cornell Survey Research Institute, the Cornell Institute for Social and Economic Research, the Roper Center for Public Opinion Research, and the Cornell Institute for the Social Sciences. The new structure will allow for more effective deployment of our resources and position our faculty well to seek additional funding from outside sources.

We're planning to launch a national search in the summer of 2020 to hire the new director of that center, someone with an international reputation for scholarship and who can help bring in external funding that matches our ambition for the center.

How is the sponsored research landscape changing, and how is Cornell responding collectively as a university?

When you look at the numbers, we do extremely well with federal and New York state funding, especially when it comes to the National Science Foundation and National Institutes of Health. Cornell, as of 2016-17, spends about \$1 billion on research each year; we receive nearly \$700 million of that annually from federal and state sources.

One of the things we are trying very hard to do is to diversify our research portfolio. If you rely largely on only one or two agencies, a big cut in that particular agency would be felt across many different fields on campus. One goal is to increase funding levels from the Department of Defense, from the Department of Energy, from NASA and from other agencies; we are also working with industry and trying to increase the research dollars that are coming directly from corporations.

How is tech transfer at Cornell generating new businesses and opportunities?

We are in a transition mode – not only here at Cornell but at many other academic institutions. It used to be that tech transfer offices would secure, and then license, IP.

The new way of doing business, the new model, is to promote new company formation. That means creating new companies, new startups, as a way to monetize the IP portfolio and as an engine of economic development. The new model requires different skills and different strategies.

Another aspect involves working with students and faculty to help them understand what

it takes to commercialize their technological innovations.

How are we realizing the entrepreneurial promise of incubators on campus, such as the Praxis Center for Venture Development and the Kevin McGovern Family Center for Venture Development in the Life Sciences?

Having incubators – and even having postincubator space, which is something we haven't quite addressed yet at Cornell – is all part of building a supportive entrepreneurial ecosystem.

To succeed, this ecosystem needs not only the right talent and innovative research, but also the right culture, policy and resources, including investment funding, mentoring and other support systems. Not only do you have to have the right structures in place, but you need to support the culture – basically making innovation and entrepreneurship, including social entrepreneurship, part of our value system.

Opposite page:

Emmanuel Giannelis, right, confers with materials science and engineering Ph.D. candidate William Bedell in 2017.

Below: Giannelis speaks about how Cornell contributes to the region's entrepreneurial ecosystem at a Rev: Ithaca Startup Works event.



For example, Cornell Tech articulated entrepreneurship as one of its values from the beginning – it's right up front; you can't miss it. What we have in Ithaca is more of a work in progress, as we are building the ecosystem. Working toward the right culture is an important element of that – so are the incubators, and so is the talent.

Another part of that culture is getting our students and postdocs more involved in these activities. By becoming involved, they are really exposed to innovation and entrepreneurship that can serve them well in the future.

Whether they go on to start a new company or whether they join a big established corporation, they will come in with that innovator and entrepreneurial mindset, and that will make them way more competitive to recruiters when the time comes to be hired – as well as more successful in their careers.

Reunion clubbing with the Tower Club

Alumni philanthropists have a new opportunity to take a break at Cornell Reunion by stopping by the Tower Club Hospitality Suite, which in 2019 was held in the Park Atrium at the Beck Center in Statler Hall.

"The Hospitality Suite is our chance to give a special thank you to alumni in returning classes and locally who are members of the Tower Club or Cayuga Society," said Rob de la Fuente, senior director of the Office of Donor Relations





Upward of 300 Tower Club and Cayuga Society members visited the hospitality

suite during Reunion 2019 to have a cool drink and a bite to eat, and to chat with faculty and students from across the university. They also got to interact with Cornell program representatives, including three owls and a turtle - patients of the Janet L. Swanson Wildlife Health Center in the College of Veterinary Medicine.

"We especially appreciated meeting and talking to the faculty," said Nancy Taylor Butler '64, celebrating her 55th reunion.

"This is the kind of event where you come but cannot easily leave because there are 10 more people you want to talk to!" said Ed Butler '63, BEE '64, M.S. '65, attending with his wife.

The Tower Club honors Cornell's donors who give \$10,000 or more annually. The Cayuga Society recognizes the far-sighted generosity of those who have made a planned gift for the university.

"The giving societies add up to being a powerful source of support for Cornell, and we want to give our guests the opportunity to speak with those who benefit the most from their generosity - our students and faculty," de la Fuente said.

Above: Here's to you! Ruben Chan raises a glass at the Hospitality Suite during Reunion

Left: A Tower Club event at Reunion.

4,800 3,400

Tower Club membership, 2019

Cayuga Society membership, 2019



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