

# Critical ties: India first destination on Cornell University president's alumni tour

Cornell University and Indian institutes are jointly working on research projects on poverty, malnutrition, health, land use and rural development

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Cornell University president Martha Pollack believes that the best preparation for a tech career - or any other career - includes a firm grounding in the liberal arts.(Courtesy: Cornell University)

Cornell University president Martha Pollack will be in India (Mumbai) from January 7 to 11. An American computer scientist with research specialty in artificial intelligence, Pollack has been serving at the 14th president of the university since April 2017. She speaks to Hindustan Times about her engagements in India and Cornell's research and teaching partnerships with Indian institutes.

**Do let us know about your engagements and the outcomes you are hoping for**

During my first year as Cornell's president, I am meeting with university alumni in key locations around the globe. India, where Cornell's longstanding and deep engagement has generated a rich array of research and teaching partnerships, and alumni connections, is the first international destination on my alumni tour.

Virtually all of Cornell's colleges, major centres and programmes across the university, interact with India in some form, including 19 active partnerships with institutions in India. This year there are over 580 students from India studying at Cornell. I am looking forward to meeting and getting to know many alumni, parents of current students and friends of Cornell while in India.

**Please let us know about the research projects Cornell is engaged in with Indian institutes and the impact expected at the ground level in India.**

One research programme that I'm particularly enthusiastic about is the Tata-Cornell Institute for Agriculture and Nutrition (TCI) led by Prabhu Pingali, a professor in Cornell's Dyson School of Applied Economics and Management. This is a long-term research initiative focused on solving problems of poverty, malnutrition, and rural development in India. TCI brings together the technical capacity of Cornell graduate students across a range of fields with the on-the-ground knowledge of academic and non-governmental partner institutions in India.

Among TCI's current projects is an effort to address micronutrient malnutrition, especially iron deficiency anaemia, a pilot clean drinking water technology system in the Jharkand villages of Gufu and Ronhe and a project to improve soil health as a way to produce more food with fewer resources.

Another ongoing partnership worth mentioning is the Nilgiris Field Learning Centre. The Centre connects Cornell's students and faculty with community members in Nilgiris and its mission is to address health, land use and livelihood issues identified as important by the community. Cornell faculty develop the education modules, direct field work, and teach on site. Classes bring together Cornell and local students and take place in a dedicated campus in Kotagiri set up by the Keystone Foundation, which is Cornell's partner in this effort.

In the area of nutritional science, professor Saurabh Mehta, one of Cornell's international faculty fellows, is working in Mumbai and Hyderabad to improve nutrition and health screening in areas where resources are limited. As a former physician in India, Mehta takes a practical approach that focuses on upgrading the quality of service in a way that is cost-effective. One of his group's recent efforts aims at equipping health care centres with smartphone-based devices which can measure vitamin D levels from a single drop of blood.

**Any project specifically dear to your heart and why?**

One of my priorities is for Cornell to continue to provide what I have called "education with verve." What I have in mind is the passion for exploration and discovery that we imbue in our students. There is no single formula for this sort of education. It can include inspiring lectures and active and engaged learning experiences. It can make use of technology to "flip" the classroom, so that students spend time outside of class watching video lectures or podcasts, with time in class devoted to problem-solving and in-depth discussion with the professor. Learning analytics can help guide the learning of individual students and the way professors teach and it can help shape curricular change. Technology can also help students in dispersed locations participate remotely in higher education.

Education with verve, Cornell style, is happening in India right now. Cornell's International Agriculture and Rural Development 602 Class - Cornell's oldest international engaged learning class - is celebrating its 50th anniversary this year. More than 2,500 undergraduate and graduate students and hundreds of faculty members, from Cornell and partner institutions, have been influenced by the course since it began in 1968.

For the past 16 years the course has been taught simultaneously in Ithaca and collaboratively online and includes students and professors from several state agricultural universities in India. The course first took Cornell students to India during Cornell's intersession in 2001, and right now, 39 students from the Ithaca campus and 12 students from India, along with their professors, are in India learning about agricultural systems, rural infrastructure, fibre science and other topics while participating in cultural and heritage events.

**As the president of Cornell, what are the major challenges you see when it comes to higher education and research in the world?**

Higher education is critically important in the information age. It provides a foundation for both individual and societal advancement. Yet around the world, there are many places where bright students have no access to higher education. Cornell from its founding has aspired to be a place where any qualified student would be welcome to pursue higher education, regardless of background or social standing. We are able to guarantee full need-based financial aid to undergraduate students from the US to make good on our founding aspiration, and while we can also financially support many international students, we wish we had the resources to do even more.

**Which research areas do you think need to have more gender diversity?**

Diversity across all its dimensions - not just gender - is essential, not only so that we do not squander human potential, but also so that we find the very best solutions to the world's many challenges. Research has clearly shown that we reach better solutions when we draw on multiple perspectives and points of view. Today's societal challenges are complex and will require all of our best efforts to solve.

Cornell's founding vision was to be a university where any person could find instruction in any study and the diversity of disciplines and of people on our campuses has made us a stronger, more intellectually vital institution. But we need to continue to strive for even greater diversity and an even more inclusive sense of community: this is a moral, as well as practical imperative.

**You are an eminent scientist, what challenges have you faced as a researcher and how have you overcome them?**

When I was in graduate school, computer science was predominantly a male field. I became involved in efforts to diversify computer science early in my career, and I have been very fortunate to have had excellent mentors, both women and men, at critical stages of my career as a scientist and as an academic leader.

Nonetheless, for the first few years of my career as a faculty member in computer science at the University of Michigan, there were more faculty members named Igor (two) in the department than women on the faculty (zero, until I came on board).

In many respects things have gotten a lot better – this year, 51% of the incoming class (and 48% of the entire undergraduate population) in Cornell's College of Engineering is female, a trend we're starting to see at elite universities across the U.S.

**Your message to students in India:**

Some students and their families may see expertise in STEM fields (science, technology, engineering and math) as the only way to ensure that they will get good jobs. But I would argue that the best preparation for a tech career-- or any other career-- includes a firm grounding in the liberal arts. Yes, tech skills are important, and it's great that more and more students are developing them. But today's challenges require a broad range of skills because the problems we face as a world are not just technical, but socio-technical.