

Cornell University



Broadening Experiences  
in Scientific Training

## COLLABORATION YIELDS A CHANGE OF CULTURE TO ENABLE PROFESSIONAL DEVELOPMENT AS AN INTEGRAL PART OF PHD TRAINING

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### CONTEXT:

Cornell University is a large, decentralized campus which includes seven undergraduate units and four graduate and professional units in Ithaca, NY. In rural Ithaca, Cornell Career Services has a central office, but has also autonomous units in each college. The Office of Postdoctoral Studies is housed within the Graduate School and serves over 550 (approximately 300 in the life sciences 62% international and 8% URM) and the medical school has its own office which serves about 300 postdocs. The [Cornell BEST Program](#) enjoys support from 5 colleges to broaden its participation to all STEM fields (1900 doctoral students, 550 of which are in the NIH designated life sciences fields). In all life science fields, 30% of doctoral students are international and less than 10% are URM. Twenty percent of the BEST Program participants self-identify as URM.

### COLLABORATION:

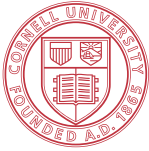
By collaborating across **colleges** (Arts & Sciences, Architecture Arts and Planning, Veterinary Medicine, Agriculture & Life Sciences, Engineering, Human Ecology, and the Johnson Graduate School of Management), **units** (including Entrepreneurship@Cornell, the Atkinson Center for Sustainable Development, Alumni Affairs and Development), **student groups** (postdoctoral societies, student government, departments) and **administrative offices** (Office of Inclusion and Student Engagement, CU-CIRTL, and the Center for Teaching Excellence), the BEST Program and the Office of Postdoctoral Studies have been able to achieve greater reach into professional development for trainees than either could have alone. Additional partnerships with **professional societies, employers and local organizations** have broadened our scope of speakers, mentors and receptive audiences.

### CULTURE CHANGE:

Together we have enabled a cultural shift among students, faculty and units to provide a more supportive environment for professional development of trainees across campus, now seen as an integral part of their PhD or postdoctoral training. Keys to this success include providing data to inform programming, filling gaps rather than re-inventing, and co-sponsoring to increase awareness of existing activities. In addition, we have garnered high faculty buy-in by maintaining flexibility, creativity and individualization to ensure efficient time prioritization with an emphasis on degree completion and research as a primary focus.

### CONTINUOUS RE-EVALUATION:

To make sure our efforts are still needed, post-event and long-term surveys are conducted, and acted upon to prune ideas that are no longer useful, modify activities in need of improvement and to develop new programming to address emerging needs.



## EXAMPLES:

### **Business as a Second Language**

While the business school (JGSM) recognized the value of the diverse viewpoints grad students and postdocs bring, they expressed reluctance to welcome them into existing classes because of the gap in vocabulary and basic business knowledge. The BEST Program co-developed and sponsored a mini-course “Business as a Second Language” to address this gap. Very popular among both grad students and postdocs from all fields, the audience included undergraduate students, and is now a [full semester course](#) in the Dyson School of Applied Economics and Management under “**Business and Management Fundamentals**”. Today it serves as a gateway to the full suite of business and management classes available to PhDs at JGSM. Buoyed by this success, professors subsequently designed specific courses for scientists and engineers on “Commercializing University Inventions” and “Business Idea Factory” in which MBA students benefit not only from fresh scientific insights and approaches but also a suite of new technical ideas for them to help solve in a team environment across disciplines.

### **Communication and Community Engagement**

Communication across scientific disciplines is difficult, but even more so to the public. We [developed a curriculum](#) focused on community engagement and public communication by cancer scientists. The series consists of three weekend workshops and a weekly seminar series with cancer researchers and members of the Cancer Resource Center of the Finger Lakes, a local organization that provides support services for cancer patients and patient advocates, yielding a **certificate of engagement in public communication of science and technology**.

### **Postdoctoral Leadership Certificate Program**

Many programs and credit classes are offered to our graduate students and postdocs in collaboration with various offices at Cornell including Diversity Programs in Engineering, The office of Inclusion and Student Engagement, the Office of Postdoctoral Studies, the Office of Human Resources, and The School of Industrial and Labor Relations.

One such program is the Postdoc Leadership Program:

Leadership involves working effectively with other people to shape social reality and achieve organizational goals. It is a critical factor in organizational and career success. Every postdoc, no matter what field of endeavor, will face a variety of difficult leadership challenges. How these challenges are met will have a significant impact on the postdoc’s career and life. Cosponsored by the Office of Postdoctoral Studies and the Cornell Vice President of Human Resources, this 10-module program is designed to introduce postdocs to some key concepts and skills of leadership in today’s complex environment. It provides a practical forum to assess and develop personal leadership skills in self-knowledge, planning and problem solving, group dynamics and team building, cultural fluency, conflict resolution, and facilitation of change. Attendees who attend at least 8 sessions receive a certificate. **Program Objectives:** Explore leadership across cultures, Enhance awareness of personal style, Examine and practice tools for use in leadership roles, Build the Post Doc community, and Provide an opportunity to network with others and learn how to create networks to support change. Taught by experts in organizational development and leadership training from September through March to allow for practice time.

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