Since September of 2013, Cornell’s BEST (Broadening Experiences in Scientific Training) Program has been on a mission to bridge the sciences and nonacademic fields. Backed by National Institutes of Health funding and the vision of Susi Varvayanis, Senior Director of the BEST Program, BEST is committed to expanding production and application of scientific knowledge in the public arena. Geared toward Ph.D. students and postdocs in science, technology, engineering and mathematics, the Program upholds a fivefold focus on science policy, industry & entrepreneurship, mentoring, governance and communication. One ultimate goal: to train future generations of interdisciplinary thinkers and trendsetters toward the actualization of on-the-ground social change, all while making science accessible without intimidation or arrogance.

BEST put a major foot forward on campus this past Monday when its graduate Advisory Board hosted a Science Communications Career Panel to better educate the Cornell community about the benefits of its groundbreaking metrics. The esteemed panelists included Bruce Lewenstein (Professor and Chair of the Department of Science & Technology Studies at Cornell), Claudia Wheatley (Senior Public Affairs Officer of Cornell University Communications), Warren Allmon (Director of the Paleontological Research Institution), and Miyoko Chu (Senior Director of Communications at the Cornell University Lab of Ornithology). Despite their varied backgrounds, the panelists shared a passion for communicating one’s work to a variety of audiences as a means of addressing the persistent barrier between hard scientific knowledge and larger social interests.

Ms. Wheatley offered the salient example of children’s vaccinations and their supposed link to autism. Despite having been debunked years ago, said link remains an issue of intense public debate. That many continue to insist on such a notion, said Wheatley, proves the power of correlation: a few cases of coincidence, and a celebrity mascot to boot, were all it took to make national headlines. In the minds of those for whom science is an amorphous world of inaccessible data, the creation of cause may become a necessary security blanket against the unknown. Unfortunately, because of the brief allotments of mainstream airtime given to voices from the scientific sector, many of those voices come across as fatalistic, leaving those who should be hearing their message feeling belittled and unappreciated. Appropriately educating the general public begs special training and vocabulary, and requires scientists to become adaptable to an increasingly diverse field of contexts.

Does your work, and your presentation of it, pass the “Who cares?” test?

All of this points to a double standard. There is legitimate fear among scientists that speaking about their work in technical terms will seem boastful, while resorting to simpler terms makes them feel as if they are “dumbing down” and not giving a complete enough picture to make informed decisions. All the more reason that those in the sciences must have their thoughts organized and their language carefully chosen in preparation for any sort of media presentation. The need for public intellectuals is on the rise, and this is where programs like BEST are paving the way.
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Dr. Allmon knows firsthand the challenges of presenting science to the public. When founding Ithaca’s Museum of the Earth, he was faced with an instructive conundrum. Although he would like to have put the Paleontological Research Institute’s entire collection on display, exhibit designers limited him to roughly 10% of that collection within the given financial and spatial constraints. The average museum visitor, Allmon noted, spends only 1.2 seconds in front of each exhibit. Allmon took these seeming constraints as opportunities to understand what his patrons could realistically get from visiting his institution. He attributed the museum’s success to a combination of tenacity, compromise and, above all, respect for audience.

Dr. Lewenstein shared his experience as a teacher and mentor of science communication (Lewenstein, in fact, leads yearly workshops on that very topic). His takeaway point? That both scientists and the general public are armed with forms of truth, but that scientists in particular must be discerning about which truths they openly share. Science communication, he averred, is something you learn by doing. Dr. Chu was in agreement on this point. As an ornithologist and published author, she underscored the importance of understanding one’s audience and of being able to speak about one’s work cogently and succinctly. Her advice: Never to turn down an opportunity to speak publicly about your work. It is the best way to learn.

In the end, Dr. Allmon’s closing statement rang clearest: Does your work, and your presentation of it, pass the “Who cares?” test? Scientists are, of course, deeply invested in what they do. It takes effort and patience. Attachment to the work becomes a matter of routine. Yet, those without such experience may not immediately understand why it matters. This remains the greatest challenge for scientists fending for clout in the public arena. As Dr. Lewenstein put it, it is the difference between a deficit model and a dialogue model. In other words, whether one simply talks down to laypersons or engages them in productive conversations. This panel was an excellent way to start the latter process, and the conversation is set to continue on November 19, when BEST representatives will host an information session around the topic of science-minded industry management and entrepreneurship.