



Paul Turner (1966-Present)

Professor and Chair of Ecology
and Evolutionary Biology
Yale University

“Seek the counsel of those who have been before you—those with similar experiences of overcoming obstacles at major institutions—because they are there to help you. All people can be excellent mentors, regardless of ethnic background, but we [minorities] have experience that other potential mentors without that experience may not provide. I am delighted to lend advice if [you] feel comfortable as a minority student coming to me.” Paul Turner, 2005.

Overview

Dr. Paul Turner is the Professor and Chair of Ecology and Evolutionary Biology at Yale University. He became the face on the cover of the 2003 annual Top Ten Emerging Scholars of Color in “Black Issues in Higher Education.” Turner has been involved in a number of diversity-related programs, including a postdoctoral program of the National Science Foundation, which brings together recipients of the awards with younger scientists who receive those awards in following years, consequently diversifying and strengthening related support structures in scientific fields. Some of his selected publications include:

- K. Pesko, E.A. Voigt, A. Swick, V.J. Morley, C. Timm, J. Yin, P.E. Turner. 2015. Genome rearrangement affects RNA virus adaptability on prostate cancer cells. *Proceedings of the National Academy of Sciences USA* 112(3):827-32. plusPDF doi: 10.3389/fgene.2015.00121 PubMed: 25883601
- E.F. Foxman, J.A. Storer, M.E. Fitzgerald, B.R. Wasik, L. Hou, H. Zhao, P.E. Turner, A.M. Pyle, A. Iwasaki. 2015. Temperature-dependent innate defense against the common cold virus limits viral replication at warm temperature in mouse airway cells. *Proceedings of the National Academy of Sciences USA* 112(3):827-32. plusPDF doi: 10.1073/pnas.1411030112 PubMed: 25561542
- V. Walther, C.T. Hiley, D. Shibata, C. Swanson, P.E. Turner, C.C. Maley. 2015. Can oncology recapitulate paleontology? Lessons from species extinctions. *Nature Reviews Clinical Oncology* 12:273-285. plusPDF doi: 10.1038/nrclinonc.2015.12 PubMed: 25687908

- B.R. Wasik, A. Bhushan, C.B. Ogbunugafor, P.E. Turner. 2015. Delayed transmission selects for increased survival of vesicular stomatitis virus. *Evolution*. 69 (1), 117-125.

This interview was conducted in 2015.

Early Life and Education

Paul Turner was the second of three children born to Rev. Eugene and Sylvia Turner. Although Philadelphia was his birthplace, he grew up in Syracuse, New York. Turner received his Bachelor of Arts in biological science from the University of Rochester in 1988, and his doctorate in microbial ecology and evolution from Michigan State in 1995. Currently, Turner is a full professor and chair of the Department of Ecology and Evolutionary Biology at Yale University.

Turner credits his mentors with helping him to become a professor at one of the country's most prestigious universities. He began his college career intent on becoming an engineer but became increasingly disinterested in his engineering courses. Meanwhile, his studies in biological science were making a lasting impression. It was through a University of Rochester program that links students to faculty mentors that Turner was encouraged by Drs. John Jaenike and Andrew Dobson to pursue graduate study in the biological sciences. These mentors not only opened his eyes to the possibility of graduate study, but also took the time to explain what the graduate school experience might entail. Turner, while excited at the prospect, was still unconvinced.

After completing his undergraduate studies, Turner decided to take some time to ponder his next steps in life while gaining more experience in environmental research. He submitted applications for internship positions and received a four-month position with the National Audubon Society at a wildlife sanctuary in Monson, Maine. During his work in Maine, Turner recalled the memories of his childhood in Syracuse where his family lived on the outskirts of town near forests, lakes and other natural areas. His father is a retired Presbyterian minister who served as the Executive of the Synod of the Northeast, while his mother is a retired public school teacher from the Syracuse school district. Turner spent his childhood observing animals in their natural environment, and his work in the wildlife sanctuary reinvigorated this wonder and excitement. Thus, he decided to pursue a career in the biological sciences. He applied to doctoral programs and began his studies at the University of California, Irvine in 1989. He later transferred to Michigan State University (MSU) in 1991.

Importance of Mentoring to Career and Mentoring Others

Dr. Richard Lenski of MSU became Turner's next mentor. Turner cites Lenski as his role model for high-quality research and for the ability to translate his studies to the public in both written and oral form with enthusiasm and clarity. Turner found protégés of his own in the undergraduates who came into the lab to conduct research beginning in graduate school and continuing through his postdoctoral positions. Like Turner, many of these students were African-American. The Science, Technology and Research Scholars (STARS) program at Yale allows Turner to continue mentoring under-represented students through an intensive eight-week summer program that brings students to the campus to conduct research. Turner has also advised minority students

who received their doctorates under his tutelage. For all of his mentees, Turner tries to model the character traits he respected in Lenski – the ability to remain focused, the commitment to quality research, and enthusiasm for work and communication. In return, he says, “It’s great to see them come in, work with them, and see their growth.”

Turner took what he called the “traditional steps” in his career after he left Maine – graduate school, post-doctorates followed by an assistant professorship, and ultimately a tenured professorship. He teaches both graduate and undergraduate courses at Yale, but a great deal of his time is spent on research and overseeing data collection. Yet, Turner sees his life achievements as anything but ordinary. “Landing a job at a highly ranked Ivy institution,” he says, “I just—I just didn’t, when I was an undergrad, even consider that graduate school would be a good idea, and even taking the [Audubon] internship, which paid almost nothing, to decide whether a career in biological science would be good—I just never thought I would be a professor at one of the world’s leading educational institutions, not to mention that people of color are underrepresented in the research sciences.”

Highlights

However, Turner is not one to look exclusively to the academic establishment for accolades. When he became the face on the cover of the 2003 annual Top Ten Emerging Scholars of Color in “Black Issues in Higher Education,” Turner felt he had really accomplished something. “I am proud to be recognized not only by my scientific peers, but that people of my own ethnic background recognize me.” Turner has been involved in a number of diversity-related programs, including a postdoctoral program of the National Science Foundation, which brings together recipients of the awards with younger scientists who receive those awards in following years, consequently diversifying and strengthening related support structures in scientific fields.

Advice to Young Professionals

Paul Turner’s advice to minorities considering a career in the environmental field is as follows: “There may be apparent obstacles, but if you have a genuine appreciation for the environmental sciences, don’t give up, because you can overcome them.” Paul sees himself and his colleagues who come from under-represented groups as a support structure that has the potential to both foster students’ passion for learning as well as navigate their way through academia. “Seek the counsel of those who have been before you—those with similar experiences of overcoming obstacles at major institutions—because they are there to help you. All people can be excellent mentors, regardless of ethnic background, but we [minorities] have experience that other potential mentors without that experience may not provide. I am delighted to lend advice if [you] feel comfortable as a minority student coming to me.”

Even though Turner struggles with the amount of time and energy he must set aside to seek funding for his research – especially in the current economic climate – he remains committed to his work because of his genuine love for research, for teaching, and for interacting with young scientists who have an appreciation for the ways biological processes work. Turner realizes that he could have taken a job in biotechnology that would have paid a handsome salary and

eliminated his frustrations with the “grant treadmill,” but his love for “testing the [scientific] theories, and teaching young people in the sciences and getting them excited” sustains him in his academic career. Paul Turner’s life is a testament to the valuable role mentors can play in shaping not only one person’s life, but the lives of the myriads of others who follow in their footsteps.

For More Information

Email: paul.turner@yale.edu

Professional Website: turnerlab.yale.edu