

Name: David Basta

Affiliation: USC-Caltech MD-PhD Program, Keck School of Medicine of USC

For the love of science

“So, when are you going to graduate?”

It’s the Ph.D. student’s most dreaded question. I tended to oscillate between the classic answers: “not sure yet”, “we’ll see”, “maybe in a year?”. But as I neared the finish line of my Ph.D., I couldn’t tell whether the restless excitement I felt was due to a growing sense of personal accomplishment or because I could soon expunge that question from my conscious experience.

As I sat at my bench at 11 pm on a Friday night planning out my experiments, I realized that I needed technical advice to proceed. My defense was in two weeks, which meant these experiments had to start as soon as possible. Whom could I ask for advice at this hour? Fortunately, the office of the renowned biochemist Alexander Varshavsky was right down the hall. Based on years of coming into lab at all hours of the night and invariably seeing his office door open and his lights on, I figured the odds were pretty good I could find him there now.

I was first introduced to Alex through his course on *Methods in Biological Research*. There were only three students enrolled in that course, yet our lectures were held in one of the largest auditoriums on campus. Despite the incongruous setting, it was among the most enjoyable courses in my graduate career. As I sat with my two classmates in that spacious lecture hall, I quickly learned that Alex was equal parts brilliant scientist and captivating storyteller. His ability to seamlessly weave together both the science and social politics surrounding revolutionary scientific discoveries made for a delightful educational experience.

Alex is the epitome of a man possessed by his work; a man driven by a passion for discovery. This is a man whom David Baltimore helped smuggle out of the Soviet Union so that he could fully spread his scientific wings.¹ Despite having the means to live lavishly, Alex chooses to live in an unassuming apartment complex less than a block from the Institute. Part of me believes that he would happily live in the lab if the building codes allowed it. Truthfully, I don’t know whether it’s the pursuit of scientific glory that drives him or an unwavering fascination with the wonder and complexity of the natural world. My guess is that it’s a combination of both. Regardless of his motivations, however, his dedication to the craft has served as a source of inspiration throughout my own scientific journey.

As I approached his office that Friday night, I was relieved to find him at his desk. “Alex, I need some advice,” I stated bluntly (with Alex, there is never a need for superfluous greetings).

I explained to him my experimental challenges, and, naturally, he gave me sound advice on how to proceed. As we talked, our conversation drifted to more interesting subjects. He shared with me his developing ideas on the molecular basis for sleep. They were fascinating. Somehow I felt brazen enough to challenge him: “Alex, is it possible your hypotheses are a little far-fetched?”

“It’s possible,” he replied. “I’m happy to place a standing wager on them. How about a thousand dollars?”

I immediately backed down. There was no way I was betting against Alexander Varshavsky on matters of science. Plus, a thousand dollars was Lasker Award-winning scientist money, not graduate-student money. Still, I reveled in the impromptu moment we were sharing. We chatted about my plans after graduation and about projects on which we could collaborate. I checked my phone for the time. It was 2 am.

“Sorry, Alex, but I need to get these experiments started. Thank you for the advice and the lovely chat.”

“No problem, David, go finish your thesis. But don’t forget that this is all just a formality. The Ph.D. really doesn’t matter. What matters is the science.”

His words resonated with me. In a moment of introspection, I realized that while I was pleased to be on the cusp of earning my Ph.D., I was not doing it for fame or fortune. The prestige of having those letters behind my name never served as motivation. All the late nights working in the lab, the failed experiments, the countless hours spent thinking about my research—they were done out of passion, not obligation. I was doing science for the love of it, the way Alex did science for the love of it. What a privilege that was.

“So, when are you going to graduate?” Thanks to Alex, I finally learned that the correct answer was, “Who cares? I’m doing what I love!”

¹Varshavsky, A. (2006) Interview to Dr. I. Hargittai. In *Candid Science-VI*, by I. Hargittai and M. Hargittai, Imperial College Press & World Scientific Publishing Co., pp. 311-359.