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This is how you leave academics, start a company, and then come back again

By Megha Satyanarayana @meghas

July 19, 2018

Molly Ferguson for STAT

Lessons Learned is STAT Plus' weekly column on careers in biomedicine. If you're thinking of jumping from academics to industry/business or vice versa, join us each week for useful tips. And if you've recently jumped, send me a note: meghas@statnews.com. Your experience might make a future column.

Who we talked to:

Omid Veiseh, 39. Assistant professor of bioengineering at Rice University. Co-founder, Sigilon Therapeutics. Foe of micromanaging.

Why you should listen:

After spinning a company out of his research and leaving academics to help run it, he decided to come back.

Omid Veiseh, Assistant professor of bioengineering at Rice University and Co-founder of Sigilon Therapeutics *Courtesy Omid Veiseh*

You started a company and then you decided to become a professor? What gives?

My training started off in cell biology — I love biology but most biologists spend their careers trying to, for example, understand a single pathway. I wanted to take it to the next step, so I moved to engineering. I like the practical aspect of product development.

I've always been excited about entrepreneurial opportunities so I wanted to go to the [Bob] Langer lab. We are always thinking about unmet needs and what could be transformative in how a certain disease is managed, so we started looking for a new therapy for type 1 diabetes and developed a bio-artificial pancreas. The hope is that the therapy could replace insulin injections, and people would be insulin independent for years, if not decades.

All along, I wanted to be a professor. In engineering, long postdocs are not as common, so when I first started in the lab, I was thinking I would transfer into an independent faculty position within a couple of years. As I got into this project, it became quite clear to have an impactful set of results, this was going to be longer than a one- or two-year postdoc. I thought about it a lot and made the decision to stay put and really dig deep and work hard on this project. I was excited about early-stage research and the concept of innovation. Once we got things going at Sigilon, it was great, it was fantastic, but then it becomes about execution, and I wanted to go back to screening ideas. Academic labs are where you can do that. So, that was the big catalyst.

Was jumping out worth it?

I have no regrets.

The time I got to spend in industry was unique and exciting and invaluable to my career. I learned so many skills when it comes to management. Now that I'm starting my own lab at Rice, I'm able to hit the ground running.

So, what has carried over from your entrepreneurial life back to your academic life?

When I was starting grad school, most people had this vision they were going to go off and be a professor. Now, with biotech doing so well, my group attracts a lot of grad students because "you've done it, you've been in industry."

At Sigilon, I was sort of the director of R&D. Nobody knew how to write a proper tech report. Or, the principles of having good IP protection. So, I'm thinking about all this as my students do their training. Our goal is that we try to develop a product — most of the students who are attracted to my lab share that same vision. When a new grad student joins my lab, I work with them and we develop a project that could be completed within a year. As they go through that, they get excited by it and they get a sense of accomplishment that they've done something.

I think part of the challenge of grad school is sometimes years go by before you have anything that works. That can be kind of deflating. So, we think about that — we try to have short-term goals along with long-term goals.

You had a big machine behind you in the Langer Lab. How can a postdoc in a small-to-no-machine lab do what you did?

Think about the big unmet need, where you are working on a project that could be transformational. In doing the research, really think about what are the key experiments that would be convincing. I think it's important to be critical of your own work. Think about patenting early on. Have good communication with your technology licensing office.

Really? Tech transfer? Can a postdoc do this?

At Rice, I sought out the technology transfer office early on. I wanted to tell [the officer] about my vision, what's the long-term vision. That way, she's not evaluating each thing in a one-off fashion, but more helping build a patent portfolio. They can be a big partner and ally for your work.

If you have a good relationship with your PI, he or she needs to understand what your goals are, too — if you are imagining that this could be a company. Maybe it's a combo [the postdoc and the PI] to talk to the licensing office, but I think typically, the PI should have a relationship with the TTO.

Is there anything you'd go back and tell Omid — first-year postdoc Omid?

I think one of the biggest, most valuable things you can do [in the lab] is talk to everyone and understand everyone's projects. Building that network is key — you need a network to be successful. It became clear to me in the middle of my postdoc, that I can't figure out how to do every one of these assays, and collaboration is really integral to success. Running a Western Blot can be tough, and we had people who were experts at it. If I find the person who knows how to do this really well, we can make progress and it's a win-win because they get to be part of this project.

What about work-life balance? Do you kick people out of the lab?

When I was in grad school, it was very common for people to come in at 11 [a.m.] and work until midnight, but I really don't know how many hours of that day you are productive. Having just come from industry, we sort of have industry hours — people come in at 8 a.m. and they may stay until 7 at night.

I'm not very micromanagerial. I think work-life balance is important. People are much more creative when they have both a happy home life and a happy work life.

This interview was edited for clarity.

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