

Akshay Sethi

How did you gain the skills you needed to lead Ambercycle?

I learned about entrepreneurship independently through online sources and worked hard to seek out mentors. To find people who could help guide our project, I started talking to faculty at UC Davis, made many phone calls, and sent a ton of emails to other technology entrepreneurs. Fortunately, many of my professors are connected with the technology community and most have experience either consulting or developing technology for an early stage ventures. Their vast network of relationships helped me make the connections I needed to get advice about leading my own project.

How has your experience with Ambercycle influenced your perspective?

Risk taking, awareness of the future, and openmindedness are attributes of successful entrepreneurs that I've come to recognize. Openmindedness is especially important when navigating corporate partnerships which are often murky and filled with counterintuitive conventions. Additionally, I have more confidence in my technical skills after producing good technology that really works. Now that I know how the startup scene really operates, I can sift through the noisy startup hype which circulates in mainstream media.

What are some resources that could have made the process easier for you?

A standardized set of rules about intellectual property ownership and transferability from universities. Every university has its own technology transfer office and its own legal forms and rules about ip ownership which makes it more difficult to collaborate or negotiate a research license with other research labs. Additionally, more incentives for student groups to continue their research after iGEM. Most every team brings really cool technology to the competition and it's a shame that most of it is shelved and not further developed.

Freedanz Ferdinand

What got you involved with technology entrepreneurship?

The biochemical engineering program at University College London focused on teaching entrepreneurial skills and forced students to spend time thinking about how to commercialize their scientific skills. My first UCL biochem engineering lecture discussed commercialization and I was assigned to write a business plan for a technology I was developing in just my second year. This consistent emphasis on entrepreneurship in the UCL curriculum plus my experience working with other students on projects for the Abbott University Challenge cemented my desire to be an entrepreneur.

What did you do with your codon optimizing software after presenting it at the iGEM competition?

After receiving positive feedback at iGEM, we decided to pitch our idea to investors like BioVita. At these investor meetings, we convinced people that our idea of automating syn bio with software was good, but we couldn't secure any financial commitments because, due to over lack of experience, investors thought our team did not have the skills to realize our idea in the marketplace. In Europe, it's very difficult to get funding for a technology startup without PH.D. scientists on the development team.

This was very disappointing but my team and I decided to launch a two year plan in which we would develop our individual skills to gain experience and credibility as well as continue to market our ideas. So far this work is paying off. The two biologists on the team are scheduled to finish their PHDs next year, our software engineer has learned techniques from working in investment banking that he would like to translate to synthetic biology, and I am in the process of transitioning from business consulting to venture capital. We are working with a consultant who has twenty plus years of experience in the pharmaceutical industry on launching our first product and have already secured our first customer.

What experiences have contributed the most to your entrepreneurial skill set?

My participation in the Bioeurope Conference allowed me to learn a lot about business psychology. I even took classes in which I analyzed film of myself giving a presentation to work on my posture, mannerisms, and delivery. My work at a management consulting firm allowed me to meet many pharmaceutical representatives and gain experience managing projects to expand or optimize a pharmaceutical firm's operations. Finally, I also worked with for the German government screening proposals for public funding. This taught me how to write grants and successfully navigate the public funding application process.

David Brown

How did you transition from iGEM participant to founding your own biotech company, Mycotev?

After winning the 2012 iGEM e competition with Upcycle Aeromatics, I took a job with a large biotech company. The idea for Mycotev came to me while I was working when I realized I could devise a process for making chitosan (a very useful biopolymer) from fungi instead of crustacean shells. My iGEM experience and time in large biotech provided all the experience I needed to get my own firm up and running.

How do you think the existing intellectual property regime could work better for student entrepreneurs?

I think its important for universities to give up their rights to technology developed by students and faculty. After the University of New Brunswick killed a deal to develop "Black Magic" (a grease cutting hand soap product developed by students and funded by the Canadian version of Shark Tank) by asserting its intellectual property rights after investors were ready to make commitments, many universities in Canada have pledged to not to assume any intellectual property rights in technologies developed by students and some professors. This type of stance on ip from universities makes it easier for student projects to receive support and is overall better for the economy considering most university developed technology is not licensed and sits on the self undeveloped once it arrives at the tech transfer office. Additionally, it makes it easier for students to see their university as a place were their ideas can incubate, grow, and transition to a commercial enterprise.