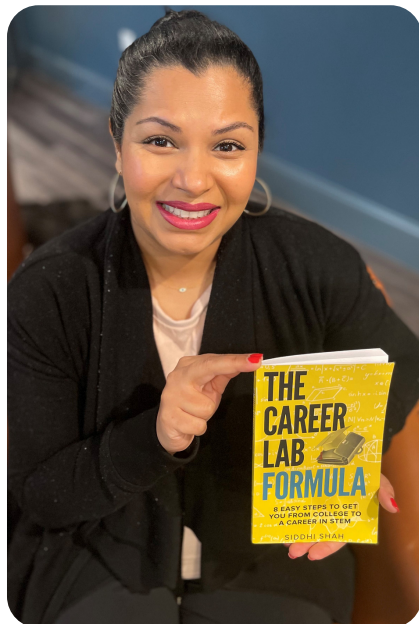

November 2021 Alumni Donor Spotlight: A Conversation with Siddhi Shah

To fuel innovation, a company must pulse on their customers' challenges and invest in resources and technologies that benefit customers in a meaningful way, while also staying in line with the company's mission. That's where Corporate Strategists, like Siddhi Shah Chhoeng (Lowell High '98), come into play. At MilliporeSigma, Siddhi uses her knowledge in STEM and communication to help effectively position the company so they can solve the toughest problems in life science.



Prior to Siddhi's successful career in STEM, she was a top student at Lowell High, where she was an active member of the Science Club, participated in the annual science fair, and even had the chance to work with Boston University's City Lab before she graduated. Today, Siddhi credits the experiences that she had there as a major part of her success in the STEM world.

Earlier this month, our Alumni and Programs Coordinator, Madelaine, sat down with Siddhi to discuss her work at MilliporeSigma, her new book, *The Career Lab Formula*, and to share stories about Lowell High, alumni to alumni.



FUN FACT #1

The year Siddhi graduated, the top 3 students in her class, April Gleason, Mikalya Reed, and Siddhi herself, were all Carney Medalists and went on to attend Harvard & MIT after graduation.

Madelaine: I'd love to learn more about your work at MilliporeSigma.

Siddhi: I work for MilliporeSigma, which is the life science arm of Merck KGaA, located in Darmstadt, Germany. MilliporeSigma, specifically, is headquartered in Burlington, Massachusetts.

What I do for them, essentially, is the business of science. I'm a corporate strategist. I have the wonderful job of understanding



FUN FACT #2

While back in the 90s you may have gone looking for her in the Pollard Library, today Siddhi finds herself stopping Bambu on Plain Street for a delicious bubble tea when she's in Lowell!

the unmet needs in pharmaceutical and academic research. I get to be at the forefront of up-and-coming technologies and think about how they address the challenges that we have in society or science right now and explore new tools to tackle those challenges to then bring them into the market.

An example that I have been using recently is the COVID vaccine, mRNA vaccine research has been at the forefront of our minds with the COVID 19 pandemic. So, in this sense, my job would be to think about what challenges researchers are facing while making an mRNA vaccine, and then to think about the tools that MilliporeSigma currently has that could help address those challenges to bring more novel technologies and mRNA technologies out into the market.

Madelaine: Your current role at MilliporeSigma involves a lot of communications and marketing, am I right?

Siddhi: I feel like my position involves a little bit of everything. I have to understand the science behind what I am pitching to be able to convey it to scientists, but I also have to be able to convince the stakeholders within the company of the technology's value too. To do this, I need to convey the process development to both parties, to show that this is the right tool for them to solve their problem.

So, communication is always going to be a huge factor. Being able to speak the lingo, whether it's to a science community, to stakeholders, or someone else. It also really helps me to understand the business acumen and what is going to be of value in the long run.

Madelaine: So fascinating! How does the kind of work that you do at MilliporeSigma tie into your book, The Career Lab Formula?

Siddhi: What propelled me to write this book was my experience mentoring STEM graduates, which I did for quite some time. I had met these phenomenal graduates who had really strong STEM degrees but were still having a difficult time transitioning into the workplace. Part of it was because they were just overwhelmed by the job-hunting process. There are so many resources out there, but nothing specifically targeting STEM students. I wrote The Career Lab Formula in a way similar to how I approach the work that I do at MilliporeSigma. I saw that there was this challenge, that STEM graduates had an unmet need, and I set out to solve it.

As I was mentoring folks, I realized there were a handful of steps that needed to be followed in a specific order to be successful in job searching, and that it did not have to be so complicated. Job searching is hard. I'm not going to de-emphasize that part, but, I think there are things that we can do to make sure that it doesn't become overwhelming, so it doesn't become your identity during that time, and so that you don't crash and burn.

I've written a concise, but comprehensive, step-by-step guide to help the next generation of STEM graduates as they transition into the workforce. I know I have gotten to where I am today because of the amazing mentors that I've had. So, this is my way of giving back and inspiring the next generation of STEM grads.

Madelaine: Sounds like a book that all recent and future STEM graduates need to get their hands on! Without giving away too much, is there a certain tip or piece of advice that you think might surprise your readers?

Siddhi: There absolutely is! Here's one: putting yourself on a schedule. As simple as that sounds, people forget to do that. I'm talking about putting in your phone calendar that, Monday, Wednesday, Friday, from one to three, are job searching hours. That means you are either going to work on your resume, apply for jobs, network, whatever it may be. It's a commitment to yourself, and that should be something you don't change. This creates a balance and flexibility where you can pace yourself. Like you said earlier, it's a little bit of self-care so you don't get overwhelmed.

Madeline: You're right. The power of putting yourself on a planned schedule can be overlooked as something that just happens naturally. Now I'm curious, what inspired you to want to work in the STEM field while you were at Lowell High?

Siddhi: Really, it was the clubs and collaborations that Lowell High School had to offer, like the Science Club, that set me up for success and helped get me to where I am today.

When I was in high school, there was a collaboration with Boston University City Lab and even the Early College opportunities that are still available to students today, being offered to us. These clubs and collaborations not only exposed me to the many different scientific fields that exist but also helped drive my curiosity about learning how to harness the power of science and how to drive inventions. This curiosity is what truly fuels what I do today.

Madeline: You mentioned collaboration with a place called the Boston University City Lab. Was that something you participated in when you were at Lowell High?

Siddhi: I did and it was amazing. The collaboration was between Lowell High School and the Boston University Medical Center, they have a City Lab. This was the late 90s and the buzz at that time was on topics such as the human genome, sequencing DNA, and understanding how to engineer DNA to do different things.

The City Lab was set up to expose students to these ideas and a group of students from Lowell High went once a week. While we were there we worked on hands-on experiments to learn about DNA and plasmids and things like how to cut DNA, put them together, and how to know if our genome sequence had worked. It was so cool. That was what spurred me to get into bioengineering and biology, and ultimately got me to where I am today.

Madelaine: That is very interesting! DNA and genetic research are sometimes thought of as having always existed, but it is still very new. It is so cool that you were just breaking into the field when it was all happening.

Siddhi: Yes! The 90s was when we really saw the forefront of biological engineering come to light. Even in mainstream media and culture, movies like Jurassic Park were a huge hit! There was this idea about cloning dinosaurs in Jurassic Park and I still remember that little DNA helix in the movie that talks about how they ended up engineering dinosaurs.

I did my high school science fair project on whether or not the science behind the movie was real, I even got to collaborate with the Boston University City Lab on it.

We created a project that took this idea of engineering a dinosaur and put it in a light that was concrete and meaningful enough to say, “does science allow us to do something like this?” It was at the forefront of so many people's minds, but the biggest question was, how is it possible to harness this technology for human good?

Madelaine: I think it is so important to point out that, even while you were still a student at Lowell High, you were already trying to solve problems and gain answers to “harness [this] technology for human good.” Was there a certain teacher at Lowell High that stood out to you, or had a big impact on your future in STEM?

Siddhi: Actually, I had four!

I'll start with my freshman year English teacher, Dr. Halsey. Her class was all about analytical thinking and reading comprehension, and being able to distill complicated information down into a concise and simple manner. She is really the one who taught me reading comprehension

During my sophomore and junior years, I took AP US History with Dr. Davis. In her classes, we learned how to form a thesis statement and then break it down into an organized flow of what you're trying to convey. Even though it was US History, we did a lot of writing, but what I learned from Dr. Davis was so important to the growth of my writing skills.

I also took Chemistry with Dr. Woodward during my sophomore year. It was in her class that I designed the *Jurassic Park* science fair project with the Boston University City Lab. Dr. Woodward sparked a love for science and curiosity in me and made me want to study biology at MIT.

Finally, Dr. Letsou, who was in charge of the Science Club and also the AP Chemistry teacher, had a huge impact on me. I also credit Dr. Letsou with fueling my passion for science. She introduced me to the different branches of science and to all of these other fun areas that existed within the STEM field.

Madelaine: I love that you can still remember their names and their classes all so clearly! It goes to show that your high school education does support you throughout the rest of your life. After your four years at Lowell High, and after all of these amazing experiences and lessons, where did you go? What came next for you?

Siddhi: After graduation, I went to the Massachusetts Institute of Technology (MIT) in Cambridge. Truly, it was what I learned at

Lowell High that got me into MIT, and it was the dedication and knowledge that my teachers provided me that ignited my love for the sciences and made these future experiences possible. I even had the chance to have Eric Lander as a professor my freshman year at MIT. He was the head of the Human Genome Project. My time there was just a phenomenal ride, and to be a woman of color who was graduating from a very urban school, getting into MIT was phenomenal.

Madelaine: I'm really glad that you talked about that last part because I'm sure that there are so many students at Lowell high who can put themselves in your shoes and can identify with you. What piece of advice would you give to current Lowell High Students?

Siddhi: One question that I always get is, "What can I do with my degree?" What I want to share with students is that a STEM degree can be leveraged in so many ways beyond just the first few roles that come to mind! In my book, I have an entire Appendix dedicated to what you could do with your degree, it's a great starting point.

There are so many non-traditional ways of maximizing your STEM degree, careers where you still need to know and understand the science, but where there is so much more than you can do beyond being in a lab. My advice to Lowell High students is to talk to people, ask questions, and find out what alumni are doing with their STEM degrees. It will surprise you where their passions have taken them.

