



LOWELL SCHOOLS FUND

Interview with Alejandro Montoya

Tiana: Can you introduce yourself and share a bit about your journey from Lowell to your current role at Corning Life Sciences?

Alejandro: I'm a biomedical scientist by trade and a businessman by choice. At Corning Life Sciences, I focus on connecting the needs of researchers with the capabilities of our solutions portfolio in the cell culture space. My role involves collaborating with customers, sales teams, and product leaders to identify opportunities for scientific solutions and support the adoption of innovative tools for advanced discovery in the life sciences. It's really about turning insights into action and creating value for the scientific community. I focus on personalized and regenerative medicine, leveraging my expertise to develop strategies and build partnerships that align innovative solutions with market needs.



I'm originally from Colombia and I moved to the United States when I was 14 years old. I also have a long history with Lowell and the Lowell community. I attended Lowell High School starting my sophomore year, then transitioned to Middlesex Community College, where I earned my Associate's Degree in biotechnology. Through their transfer program, I had the opportunity to move to Boston University, where I completed my Bachelor's Degree in biomedical sciences.

During college, I was working at a few different companies, both as part of my internship to graduate with my associate's and as part of building my experience within the industry. A few years later, after taking about a one-year hiatus, I decided to pursue my Master's Degree at UMass Lowell, also in biomedical sciences. As you can tell, I really fell in love with the life sciences and the biomedical field—learning about cells, cancer, oncology, microbiology, and anything related to the cellular aspect of biology.

Many people tend to group scientists into chemistry, but that's not my forte. I'm definitely more of a cell biology person. I like to think of science at a higher level—beyond chemicals, compounds, atoms, and even proteins—and focus more on how everything comes together to make cells function, both in the human body and in disease. That's what really attracted me to this field.

While earning my master's, I was able to work with Corning through a partnership with UMass Lowell. This allowed me to complete my thesis while working on a project for the company, which I used as the basis for my research. It's been a very interesting and rewarding journey, challenging at times, but full of valuable lessons and it has ultimately brought me to where I am today.

Tiana: Were there any classes, teachers, or experiences at Lowell High that had a lasting impact on your career path?

Alejandro: There wasn't one specific person, but rather a group who pitched in and gave me something along the way, something that said, "Don't limit yourself."

All challenges can be temporary and can be as challenging as you want them to be. That's really what I took from those experiences. Coming from a Spanish-speaking country and arriving here with only a basic understanding of English was probably the first barrier I had to overcome. Then there was also the cultural piece—adapting to a new culture and making new friends. You have to have a support group and people who can tell you what the next step can be.

I'm a person who learns best by absorbing information. I have to admit that I didn't always love doing homework, but I love learning. That's something that has helped me, in the sense that, you learn from books, you learn from people, and you learn from experiences. I try to do a little bit of everything, put my own spin on it, and then digest it and learn from it, while also gaining different perspectives and points of view.

There are definitely specific people who come to mind, but I think it was a group effort. That includes guidance counselors who helped with scheduling, selecting classes, and guiding me toward things that were suitable for me. They helped create the next stepping stone as I grew and discovered my interests and the things I was good at or the things I wasn't as strong in. Those experiences helped shape my path and guide me toward what was more suitable for my interests, personality, and goals. Two people that I really remember, though, are Mrs. Jaime, who was my science and biology teacher, and Mr. Santana. I would summarize all of them as people who showed me opportunities and avenues I could pursue.

I think that's going to be a key theme during this conversation: take things day-by-day, and when

opportunity comes knocking, you go and investigate it. Maybe you learn something and move on to something else, or maybe you find yourself on a path that takes you through your entire life. Sometimes it's just about following those opportunities and allowing them to unfold. Those are really the people who helped shape my career path—each of them showed me an opportunity or an avenue that I could pursue.

Tiana: Looking back, when did you first become interested in the life sciences field?

Alejandro: I'm the type of person who has always enjoyed learning—from people, from books, and from history, but it became much more vivid that I wanted to follow and pursue this career when I was at Middlesex. I think that really had to do with having a director for the biotech program there who was able to simplify things and make them very relatable. She made things feel real, like something you could actually have an impact on, and that played a key role for me.

It became even more evident when I started spending time in the lab and seeing the way cells grow and behave. What do they need to grow? What happens if I do this? Why do they die, or why do they turn into something unhealthy? Then seeing the different types of cells, and moving from bacteria to viruses to cells. Those are the things that simplified it and made it more relatable for me, and they helped me realize that this was something I wanted to do for life. I also realized that you don't always have to be in the lab. There are different avenues you can take without necessarily leaving the area you enjoy or your area of expertise.

I would say it was the people who made it very simple, attractive, and interesting. Plus getting to do this work hands-on and understanding that this is not just a concept, but actual work, made it tangible and relatable. That is what helped me choose this path.

Tiana: What lessons from growing up and living in Lowell have stayed with you throughout your career?

Alejandro: Being a minority or just staying within your own group or ethnicity is not always the best thing you can do. I've always really enjoyed learning from other people, seeing their perspectives, and learning about their cultures and religions. That has really helped me in life.

Lowell is a melting pot of different ethnicities, cultures, and perspectives. I think that allowed me to be open-minded about all the different things I could do, see, taste, and learn about. I take that in and then put it into different activities or areas where I want to grow and expand. That can be a strong foundation that then helps you diversify and start getting a bit more granular. I like having that perspective of, "let me step out of my shoes and try to understand where things come from and how they come about."

I think that diversity and learning from other people—which is a big part of what represents Lowell as a community—really made an impact on my life. That’s certainly something I carry with me. I continue to travel, see the world, learn, and interact with people in the Lowell community. I try to keep that learning active and make it a central part of how I live and grow.

Tiana: From your perspective, how can Lowell High better support students interested in STEM or biotech careers?

Alejandro: I would say that they already do a pretty good job. I’m actually really pleased to see all the improvements they’ve made to the building. I hadn’t been there in a while, but I happened to be in the area the other day, so it was great to see it.

I think students probably feel more encouraged and feel like they’re being invested in when these kinds of things happen. I mentioned earlier how important having hands-on lab experiences was—being able to relate to the concepts of cell biology, like stem cells, the way cancer works, and all these different things that we don’t always fully understand but can make simple enough. I would say that having hands-on experiences like seeing what bacteria look like, how they grow and change, or how a cell processes nutrients and what these cells are actually able to do—could be very powerful for students.

There is so much cutting-edge technology now that has already been simplified, like CRISPR and the way you can do gene editing. These are things I think are going to become very critical. You can either do it organically, which would be awesome—giving students this opportunity directly in school. But we also have a biotech hub here in Boston, so these collaborations are really valuable. If there’s an option for students to have more hands-on, real-world experiences that show them what actually happens in industry or at a more advanced academic level, I think it could really help students who might be interested in STEM or biotech careers.

I would say continue doing what they’re already doing, but keep collaborating and making things simple for students, so they don’t get discouraged from pursuing STEM just because people have this misconception that it’s complicated—when it really doesn’t have to be.

Tiana: How do you see students from communities like Lowell contributing to the future of healthcare and innovation?

Alejandro: Science is made by everyone—it’s not something only a certain type of person can do. When you have a personal purpose, which I think we see a lot in the local community, that can really drive you.

From a human perspective, we've all lost someone to a disease, or we wish for something better for society. Many underdeveloped countries still suffer from problems that make you wonder, "Why do we still have to deal with this?" I think Lowell really has all the right ingredients, and that gives people a sense of purpose. Then it's just about helping people find the opportunities and giving them the tools they need. I think Lowell does that as well. Having these different pathways and opportunities helps them understand that, "hey, when I graduate from Lowell High, I can go straight into an Associate's Degree program at Middlesex."

When I was still in high school, I started taking classes at Middlesex before I even graduated. That really helped me immerse myself in the community college culture, which required more intensity and more responsibility. It was very similar to the transition I later made from my Associate's to my Bachelor's degree. Having those stepping stones, or having someone show you the way and put the right tools in place, is going to help the local community continue to grow. It can also help people insert themselves into the biotech field.

We probably have one of the largest biotech hubs in the world right here in the United States, especially in Massachusetts. It's a very rewarding path to choose. We just need to make sure people understand that these opportunities are there, and that they're not reserved for anyone special or different—anyone can do it.

Tiana: What skills do you think are most important for students who want to pursue careers in science, business, or technology?

Alejandro: First, find your purpose. Second, don't drown in what the future might bring; that's a problem for tomorrow. Try different things and find what you actually enjoy. Then just take it step by step, day-by-day. Enjoy what you're doing, deal with the challenge that's right in front of you, and make sure you follow the different opportunities when they come knocking at your door. Anyone can do just about anything. I believe that the majority of careers and paths you get to choose in life only require understanding, logic, and creativity. So that would probably be my biggest piece of advice: don't box yourself into anything.

I am a scientist by education and by trade, but I ended up going into business and innovation. Who knows where I'll be tomorrow? At the end of the day, my roots are with science, I still work with scientific products and still try to solve scientific challenges and issues—but I'm not boxing myself into one label. Life changes, but keep being logical, creative and innovative, and make sure you always keep your mind open to learning new things.

Tiana: What advice would you give current Lowell High students as they think about their own futures and how they might create impact after graduation?

Alejandro: Things are changing rapidly, so don't let it be overwhelming. At the same time, don't sit back and wait for things to happen. Knowledge is at the tip of your fingers. Experiment, learn, understand, try to simplify things, then build on that and make connections. Impact will come. It may not come on day one. It may take a while, or it may actually happen sooner than you imagine. But, like I said, that's a problem for tomorrow. Today, just focus on understanding and learning. Know what the problem is and then be creative about what possible solutions are out there. Come up with ideas, try different things, and see what happens. Sometimes you need to break things to fix them.

That would be my advice, try different things and learn from those who have done it before. Sometimes you don't have to reinvent the wheel— you just have to take it and make it a little bit better. If you take it day-by-day and do the best you can, impact will come—both as a personal reward, and also for society, which I think is ultimately what we all want to do.

Tiana: When you look ahead, what kind of legacy do you hope your work will leave for the city of Lowell and its students?

Alejandro: I think we all want some sort of legacy. Sometimes it can be within your own circle, or it can have a big impact on society. As long as you're a good person and do good things, you'll have a beautiful legacy. Obviously, there are areas where we need to be a little more creative because society and the way we interact with the world and each other is changing.

I would say I want to make sure I share my experiences to be a source of hope—or even a kind of path—for somebody else. I have an opportunity to look back at what I've done and understand that this might be helpful for other people. And, of course, continue to put myself into my work and keep in mind that we can come up with life-changing solutions.

There's a big motivation behind that, and I'm proud to say that, wherever I go, I'm always going to be that "Lowell kid" from around Lowell High and Lowell streets, someone who rode a bicycle there and gradually became more immersed in American culture within the city. I still have very good friends and a lot of memories. That's something I'm always going to take with me. I'm going to do my best, and hopefully that's going to be a legacy—a legacy of being remembered in a way that might help other people.