

Interview with Dr. Alla Zamarayeva



**Dr. Alla Zamarayeva
(ChE BE '14) CEO and
Co-founder of CellFE**

How are you, Alla?

I'm doing great, thank you! We're busy deploying our product to the market. Despite the fast pace, I'm excited about everything that is happening in the company.

Please, briefly introduce your start-up company and what your current involvement is.

I'm the CEO and co-founder of CellFE, a biotech start-up based in the San Francisco Bay Area. CellFE innovates in the cell therapy manufacturing space.

Cell therapy is a new treatment paradigm that can defeat life-threatening diseases. Unlike mass-produced pills, cell therapy involves taking a patient's own cells, genetically modifying them to fight disease, and returning them to the patient. This "one batch per patient" manufacturing approach is complex and extremely costly—often around \$400K per dose. As a result, fewer than 5% of eligible patients can access these treatments.

CellFE's mission is to drastically reduce the manufacturing complexity and cost—so that cell therapies become the standard of care for hundreds of thousands of patients worldwide.

How did it all start?

I was working toward my PhD at UC Berkeley, when I came across a publication from Georgia Tech describing a microfluidic technology capable of efficiently delivering gene-editing materials to cells for cell engineering. I was immediately drawn to how elegant and impactful this technology could be in transforming the manufacturing process for these emerging treatments. I simply couldn't ignore its potential. So, I flew to Georgia, met with the professors who had developed the technology, and convinced them to join me in founding the company.

What's the next goal that you are working toward?

Since the recent introduction of our product to the market, we've gained significant traction with pharmaceutical companies that have evaluated our technology and provided very positive feedback. Our big milestone for the coming year is to see those pharma clients use our technology in drug manufacturing and, ultimately, to treat the first patient using our solution. It's an incredibly exciting step forward for us.

Any advice you have for our undergraduate students who want to become entrepreneurs?

-Learn to Embrace Change and Failure

Entrepreneurship often means facing failure, ambiguity, and the need to pivot quickly when circumstances change. While I handled ambiguity and pivoting fairly well, I initially took failures very personally—and it was incredibly stressful. Learning to view mistakes as learning opportunities helps you recover faster and stay focused on innovating.

-Build Your Network Early

Start connecting with professors, alumni, and industry experts now. Attend entrepreneurship events on campus and take advantage of any start-up competitions or accelerator programs offered. These connections can provide guidance, feedback, and sometimes even funding.

-Learn from Real-World Experiences

If possible, intern or volunteer at a start-up, where an entrepreneurial mindset is weaved into day-to-day behavior and decision making, and you can learn multiple aspects of building a business.

Anything else you would like to share?

Never underestimate the value of your experiences at CCNY—they can spark the path to your future ventures. I was able to start a company based on microfluidic technology precisely because of my undergrad research at CCNY, as my PhD research was on an entirely different topic. I'm incredibly grateful for all I learned there and can't wait to see what the next generation of CCNY innovators will accomplish. Thank you again for reaching out, and I look forward to staying connected with our alma mater!