

UIUC Convocation Address. May 15, 2022

Faculty, staff, family, friends, and most importantly graduates of the Class of 2022, I am humbled to share this important day with you.

In thinking about what to say today, I decided to share my continued love for chemistry and especially my love for carbon. That little atom that makes up everything around us, including us, has now become the enemy. And indeed, it is certainly that if the chemists in this room cannot help redefine and completely overhaul our existing carbon economy.

How we source, use, and dispose of carbon will define our generations and, importantly, will define our ability to live comfortably on this planet.

While I did not come to this conclusion while at the University of Illinois, 40 years later, it is clear that the University prepared me to lead a company at the edge of the energy transition. I was born in Colombia. And like many kids growing up at that time, I wanted to become an astronaut. I moved to Los Angeles when I was nine the same year Neil Armstrong stepped foot on the moon. While attending public school, I fell in love with chemistry and realized science and math were not just for getting to the moon; I could use them to launch even more incredible discoveries.

Today I lead a team that turns pollution into fuel, fabric, fragrances, and products we use in our everyday lives. It may not be rocket science, but the process involves a little bit of synthetic biology, artificial intelligence, engineering, and a lot of chemistry. The science is state-of-the-art, but the idea is simple. We use nature to heal nature. First, we capture carbon emissions. Then we feed them into bioreactors where trillions of carbon-hungry microbes go to work. These tiny dynamos eat the pollution and output valuable raw material commodities. Pure enough to be resold, repurposed, recycled, renewed, re-everythinged — from sustainable jet fuel to yoga pants. We are using those microbes to drive to a post-pollution world.

Our goal is to keep fossil carbon below ground and capture what carbon we can above the ground to create the products we use in our daily lives – and we are doing it. Virgin Atlantic flew a plane from Orlando to London using our fuel. Unilever sells dish soap and laundry detergent made from carbon emissions in Europe and Asia. Coty will soon sell fragrances made from carbon waste, and over the holidays, Zara sold dresses made from carbon gases.

After 15 years, a thousand patents, and millions of hours of pioneering scientific inquiry, I have had the pleasure of working with and leading a team that has invented a technology big enough to meet the moment. One that transforms pollution into profit and helps to ensure that humans continue to prosper far into the post-pollution future.

Despite our success, it was not an easy journey. Nothing so big and so great can be easy. I have spent my career doing things everyone tells you "Can't be done." My answer to them has always been, "Watch me!" Personally, and professionally, I am not afraid of failure, and neither should you. The only downside to failure is not trying. Throughout your life, you will hear people say no to you; they will say it over and over and over again. Ignore them.

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Aristotle said, “To avoid criticism say nothing, do nothing, be nothing.” Indeed, the person in the arena has always had to listen to the person on the couch tell them what is or is not possible. Creating change means being first, and while not easy, it is what you must do. We need to find the people who share our vision to overhaul our carbon economy; people that see the massive change that is required and that are willing to work to make a difference.

There is one other important element that has helped me throughout life. That is the company I keep. I am surrounded by friends and family that have supported me and lifted me through challenges and opportunities. I have also surrounded myself with a community of doers in various industries and fields where together, we have challenged the status quo. Today I welcome you into that community, a community filled with passion for the change that must come and the empathy to care enough to create that change.

This is our moment. I believe that carbon will define your generation, all our generations. We will be defined by how we treat carbon, where we find it, and how we deal with it. Every day, I work with scientists, engineers, and business executives working to trap carbon and turn it into products we regularly use. This is an exciting time, and every day gets better.

That is why I am excited about the challenges you face and the problems you will soon solve as an educator, scientist, journalist, investor, entrepreneur, executive, or whatever path you choose. The degree you receive today is your foundation for solving today's problems and preventing tomorrow's crises. The knowledge you have learned and the things you have experienced have taught you to look at science and data to solve problems, small ones, and monster ones.

Regardless of the path you take or the career you choose, be smarter than the problems you face. Don't shy away from risk, don't be afraid to fail, and expect often, someone will tell you 'No.' If you work hard, keep your conscience, stay focused on what gets you excited, and surround yourself with a supportive community, you will succeed.

That also means listening to people. But what they see as your trajectory and what you see as the best path for you do not have to be the same. Only you will truly appreciate the potential of your work while being aware of the risks. Know that good ideas aren't enough; you need to execute if the idea is to have any impact. Always focus on the prize! If you fail, course correct, learn, and move on!

I am excited for the opportunities you face, and I am comforted that you will soon work on solving today's challenges to build a better world.

To quote Muhammad Ali, “Impossible is just a big word thrown around by small men who find it easier to live in the world they've been given than to explore the power they have to change it. Impossible is not a fact. It's an opinion. Impossible is not a declaration. It's a dare. Impossible is potential. Impossible is temporary. Impossible is nothing.”

Congratulations and go get them!
