

“Making Life Even Better: Building a 21st Century Company”

Presented by Gregory T. Lucier ('86 I E)

Penn State College of Engineering Commencement

May 15, 2009

Dean Wormley, esteemed faculty, graduates, families of the graduates, it is a great pleasure and honor to join you to celebrate this fantastic accomplishment. Now, I've been told this day also marks the 100th anniversary of the industrial engineering program from which I graduated – I think that is even longer than Joe Paterno has been running the football team!

But more seriously, Coach Paterno and the engineering program share an important distinction: They have both adapted to changing times to remain relevant and highly respected.

Twenty-three years ago I was sitting where you sit now wondering what fate had in store for me. Today, as Dean Wormley told you in his introduction, I am chief executive officer and chairman of the board of one of the largest biotechnology companies in the world. Have I been lucky? You bet. Chance plays a role in everyone's life, but we are not helpless playthings of fate. Tonight, I want to tell you about three episodes that decisively shaped my career and taught me that you can turn chance, and even failure, in your favor.

The first episode is titled “Stepping Out.”

In 2003, I was working at General Electric, a company where I had spent most of my career working up the ladder. As one of the youngest corporate officers in recent history, I was running one of the fastest growing units in the entire corporation, and making a very good living. Then one day in May I up and quit. I had decided to move out to sunny California to run a struggling, smallish biotechnology company. All of my professional colleagues thought I was crazy, and when I told my plans to Jeff Immelt, the Chairman and CEO of GE, his jaw dropped.

Now, partly my move was prompted by a growing desire to run my own show. But more important than that, this new show was in biotech. You see, in my last position at General Electric, I had the good fortune to be assigned to the medical business where we were dealing with a dazzling array of cutting edge technologies – CT scanners, MRIs, electronic medical records, you name it. In my exposure to the medical industry I came to understand the very thing it centered on: Fighting disease. And while our equipment made a world of difference in the treatment of sickness, I realized it failed to get at the root of the problem, which is stopping the disease from ever starting. That was something that would have to happen at the molecular level, where the life-controlling functions of the body really take place.

So when the chance came to get into biotech, I really didn't care that I was leaving a far bigger and more prestigious job at GE, or that I had spent my entire professional life running engineering organizations, not ones based on science. Nor was I overly concerned that I knew comparatively little about this new science of DNA; I'd been thrust into that kind of situation

many times before. What I could see, and feel in my gut, was that biotech stood on a new frontier, and that where there is the most uncertainty, ambiguity and unanswered questions, there you will find the most opportunity.

In your life you will come upon moments when you have the chance to step out of the familiar path you are on. It will be risky, it will be scary, and you may feel pressure from others to play it safe. Don't. Inertia is the mortal enemy of a fulfilling life. If the moment feels right, I encourage you to act. You will be making the ultimate bet on your own abilities, and while success is never assured, having the courage to step out will re-define you in your own eyes and bring you a step closer to achieving your own true identity.

My second episode is titled "Becoming the Sculpture."

By 2006 that smallish biotech company I had joined three years earlier wasn't so small anymore. We had doubled in size, acquired 10 companies along the way, and our stock was doing great. All was well, or so it seemed. Suddenly everything changed; life is like that. We started having serious problems integrating all those new companies into the fold. Implementation of our new information systems was crashing and we weren't getting reliable information from the field. Results started to go bad; really bad. In a few short days after we missed an earnings projection the stock dropped 40 percent, and when that happens they want your head. At age 42 I faced the very real possibility that my rather brief career as a CEO might end in failure.

My father once shared with me an interesting metaphor for life. He said that we are all born as an unformed ball of clay and that it's not so much life's ups and downs that shape our fate but rather how we deal with them. We can end up as a beautiful sculpture, or remain an older, worn out lump. Now, as an aside: My father won a Pulitzer Prize so he usually employs a bigger collection of words to make a point than I have used here. In any event, facing personal disaster as I was, the simple but forceful imagery of my father's advice showed me what I had to do.

In my despair – and trust me, I was really bummed out – I realized the problems the company faced all emanated from me. It was an awakening. I had to change, and the change was going to be very visible and humbling because it would take place in front of the entire organization. But change I did, and then worked my tail off fixing what was broken. In time we came roaring back and have been on a tear ever since.

Now, whenever I interview someone for a job with Life Technologies, I pose one essential question: "Tell me about your biggest failure and how it has changed you." More often than not, I find that the best leaders are those who have had an experience that created real scar tissue, where they went left and should have gone right. Somehow they seem more real, with a good perspective on things, and you know what, people want to follow them versus someone who has led the "perfect" life. As you move forward from here, don't overly worry about making mistakes; instead focus your strength on how you bounce back from them.

My last episode is titled “Dream Big.”

The title of my address is “Making Life Even Better: Creating a 21st Century Company.” If I were to tell you everything we are doing inside the company to achieve that goal it would be a real snoozer. But in fact those words are really my dream. Let me explain.

If you look back to the middle part of the 20th Century, it was our understanding of the physical and engineering sciences that led to remarkable developments that changed our lives – the transistor, the semiconductor, and ultimately the information technology explosion that is now redefining the very nature of how humans communicate. I believe unequivocally that in the 21st century our understanding of the life sciences will have a similar impact. We’ll see a sharp increase in life spans: a complete redefinition of how we obtain our energy, including biofuel production, and we will be able to address climate change with biological solutions yet to be imagined. And I can say with certainty that this life sciences century will affect you not just as individuals living through it, but as engineers working in it. Here’s an example: my company was one of the major contributors to the original federal government genome project completed back in the year 2000. One genome was decoded – well, kind of – and the project cost billions. Today, only nine years later, a Life Technologies system decodes a genome for about \$10,000 in two weeks time. More interestingly, we’re working on a breakthrough solution that will cut the price to one thousand dollars and the scanning time to a few hours.

You might be surprised to learn that our lab has as many electrical and mechanical engineers, computer scientists, and mathematicians as it does biologists and chemists. This is not an isolated example. In the world’s great research centers, the war on cancer is being waged by a cross-section of professionals – biologists, engineers, and computational experts. What I’m saying is that this century will be about the convergence of the life sciences with engineering, and it will unleash a wave of innovation bigger than the one we lived through in the 20th century.

In the midst of all this, my dream is to build a company as defining of its age as Intel and IBM were to the electronics/information technology explosion. Now, my wife says I may be getting a little bit carried away, and my mother tells me, “Gregory, don’t be disappointed if it doesn’t happen.” Of course I love them both, but the truth is I don’t really listen to them on this one. I am passionate about what I see ahead, and every day I work to make my dream happen.

So I ask you, what is your dream? Where are you 5, 10, 20 years from now? In response I realize you may be grumbling under your breath, “Buddy, I just need to get a job.” Look, I understand. These times are tough. But you know what, the great thing about Penn State is that sometimes ordinary grads, people like you and me, get to do extraordinary things. Like most of you, I’m sure, I came from a working-class place – mine was Norristown, Pennsylvania – and my parents struggled financially to put me through here. I worked hard to get decent grades, but I had some serious fun, too.

What I hope I have convinced you of tonight is that you can't let anyone define you but yourself. And in that same spirit, don't let these times limit your ambition. Leave here not just with a desire to get your career going, but with zeal to find that special place in life that makes work an adventure, where your dreams come alive. And because we're the same kind of people, separated only by time, I can say with confidence: The best is yet to come.

Thank you for letting me be a small part of your very big day.

Congratulations.