

## **Chemistry Commencement Address**

**Spring, 2018**

**Dr. Peter K. Dorhout**

Students, faculty, staff, family, and friends – thank you for the welcome.

Thank you, Ken, for the introduction – I'm glad you left out some of the details in the interest of time. Professor Gruebele – thank you for the invitation to be here today – 33 years since I marched forth from Noyes Lab with my Bachelor's degree in hand, or at least the assurance of one after reconciling my accounts. Technically, I had received my degree in January – after my 9<sup>th</sup> semester, not my 7<sup>th</sup> – but I was compelled to go through commencement in May, 1985, by my wife, Carolyn.

My invitation to be here today was mostly by virtue of my recent election to the role of President of the American Chemical Society – I am the 28<sup>th</sup> person to be elected to lead ACS who has had an association with this department – more than any other that I know. That is a testament to what I am about to share with you.

When I was asked to speak, I wondered what others had shared with recent graduating classes – Prof. Girolami pointed me to a web site that

maintains a list of speakers and copies of their addresses for nearly the past 20 years. That list includes Marinda Wu (the 27<sup>th</sup> ACS president from Illinois), my undergraduate and graduate school classmate, Cathy Murphy, and other notables like one of my undergraduate mentors, Steven Zumdahl, and former president of the University of Arizona, John Schaefer. While reading through the addresses posted online, one message was clear: nearly everyone commented that they remembered nothing about what their own commencement speaker shared. I thought back about my speaker – Nobel Laureate Prof. E. J. Corey – and, I admit, that I remembered nothing he said.

So, I was inspired to help you, by ensuring that you would remember my address...by making the theme of my address: nothing.

Most of you are too young to remember the first run of a television show about nothing: Seinfeld, which ran from 1989-1998. Ostensibly a comedy show about everyday life in New York, the show's main character and co-writer, Jerry Seinfeld, often made reference to it being a show about nothing. He and Larry David made a killing over nothing.

I plan to leave you with three keys to remembering nothing from my address. The first of those is: Nothing has prepared you better to be a professional in the chemical sciences than the education and experiences you received here. The Illinois land-grant heritage that began 150 years ago has focused on an important mission to prepare the citizens of Illinois and beyond with exceptional and accessible education. Improving the lives of the people and the economy of the state is deeply rooted in what this university does.

When I arrived on campus in 1980, I had come off a win at the state science fair with my project in physics, I had a 1520 on the SAT and a 36 on the ACT, and I knew nothing about being successful in college. My parents – music teachers – knew nothing about how to help me through my chemistry, calculus, and physics classes. I barely survived my first semester.

The best part about my first year saga was that Steve Zumdahl, my Chem 107 professor, knew nothing about my problems other than I was crashing in his class. Realizing that he had a chance to convert a physics major into a chemistry major, he offered me salvation through his advising and

mentoring. On top of that, he found me a job in the department that would lead to three undergraduate research experiences and a co-op opportunity with DuPont – it was a very good thing that he knew nothing about my grades, but he did understand my work ethic, and that's what saved me.

When I arrived in Madison, Wisconsin to begin my PhD studies, I felt that familiar anxiety about being overly confident and underprepared in my studies. Nothing was further from the truth. I discovered that among students who had studied chemistry at some of the very best schools in the country, I was well prepared for the rigors of graduate school. Illinois, this program, had prepared me to be competitive.

Yes, I had, mostly, outstanding and indefatigable faculty teaching me; I had outstanding faculty and graduate students mentoring me in research, and I had outstanding friends who, today, are all shocked about what I have accomplished professionally. I'm sure some would reflect that I was probably going to amount to nothing.

Nothing has prepared you better to be excellent than this department.

The corollary to being prepared for success is this important consideration: Nothing is more important than learning how to fail. As I shared earlier, I was developing a real talent for this early on, when several faculty mentors helped me realize that it's one thing to learn how to fail, it's another to perfect this skill. My research experiences with John Shapley (I'm sorry I broke the quartz reactor tube), Walter Klemperer (I'm sorry about the crystal structure ball drill), and Ken Suslick (there isn't enough time to cover everything...so let me just ask for a blanket of forgiveness)... my lab experiences enabled me to learn to be an accomplished researcher, and that means to learn from the experiments that didn't succeed. That's what hypothesis-driven science is all about – test your ideas to failure, learn from that failure, and propose a new hypothesis to generate a new research proposal. It's the only perpetual motion machine that actually works! The best part of being a scientist is coming up with the next idea. Nothing is more satisfying!

Nothing prepares you for success than learning to fail.

Now, my final point in this nihilistic disquisition: Nothing is more important than friends and family; nothing helps you conquer adversity like them.

Many of you are here today because your friends and family were behind you, supporting you, and advocating for your success. If you do nothing else today, take a moment to thank them right now. (APPLAUSE)

When you are being challenged later in life, your friends and your family will be there to help see you through it again. I have come to realize that I met many of those people who are still part of my life right here in Champaign-Urbana, including my wife of 33 years. Colleagues in my labs and classes still stay connected with me through various virtual friend sites and through the American Chemical Society. Here's my one plug for ACS – I've got to do this, it's in my contract, which, by the way pays me nothing: networking at meetings has enabled me to form successful research collaborations, find graduate students and postdocs to join my research team, and develop leadership skills that launched me into new jobs. There are many professional organizations out there, but nothing like ACS.

Today marks an important transition for you graduates. You have accomplished much and should be proud. Whether you are heading to graduate or professional school, off to start a new job, or are still searching for that next opportunity, I wish you well and congratulations! I am so

fortunate to be able to join with your family, friends, and faculty mentors in recognizing your accomplishments today. Remember to take time to be with family and friends – they are your biggest fans – and take time to refresh yourself.

Remember: Nothing...

Nothing has prepared you better to be excellent than this department.

Nothing prepares you better for success than learning to fail.

Nothing is more important than friends and family

With your Illinois degree, nothing should prevent you from following your passion – whatever that may be.

I hope you will find nothing memorable about my address today –

Congratulations!!!