Thank you Dean Fleddemann – Good Morning

When I started at UNM, I would have never believed my graduate career would culminate on this stage, speaking to all of you today. After all, there is nothing particularly unique about my situation, I am not a valedictorian, and my research has yet to be considered for a noble prize (but then again I didn't invent the internet or do a movie about global warming). The truth is, I am just like every other graduate here today: enthusiastic about science and engineering and excited to be moving on to my next challenge.

I must admit, when I was offered this opportunity to speak I was a little nervous -- not due to the large audience, but because in some way I would be representing my 2007 school of engineering colleagues, all of whom are talented and accomplished.

Faced with this responsibility, I began reflecting upon my graduate career. I was struck by the realization that many of the lessons with which I am leaving graduate school are contrary to my original expectations. Hence, this speech is titled “my 3 big myths of graduate school.” It is my hope that these observations will both strike a chord with the postgraduates in the audience and provide some advice for those currently pondering an advanced degree.

Myth #1: Graduate school provides the opportunity to work on high-profile problems.

High-profile issues like climate change, stem cell research, and alternative fuels are plentiful in the news today. However research directions are often dictated by the funding agency, not the researcher. As a result, the preponderance of problems that students find themselves working on are often obscure,... and infinitely harder to explain to one's parents. For example, my dissertation area is reconstructing phylogenetic networks and I've been working on it for four years. I figure it will take another four to explain to my family exactly what I have done and why it is important. On the bright side, I've found that these lesser-known problems can be just as challenging and intriguing as high-profile ones. Often they are equally complicated, demanding creativity and insight, and yielding a similar sense of satisfaction when solved.

Myth #2: The duration of one's graduate career is dictated primarily by intellect.

Most new grad students learn early on -not- to ask how long another student has been in the program. Instead, there are three politically correct categories: “those who started before you,” “those who started with you,” and “those who started after you.” Although finishing with “those who started before you” is a noble goal, the real pressure is not to finish later than the majority of “those who started after you.” And although raw intellect can make the graduate experience easier, course requirements, comprehensive examinations and conference presentations all provide unique challenges, and have time-lines of their own. In the end, I have found that graduate school is more a test of one's endurance, not intellect.
Myth #3: The path for earning an advanced degree is well established and leads to a predictable graduate experience.

Because the graduate progression is so well understood, new students often feel their quest will advance according to plan. The common formula usually includes: course work, comprehensive exam, technical proposal, research, writing, defense, and publication. However, as many of us have come to appreciate, research interests change, funding may push new directions, curricula are revamped, new professors are hired, and others may retire. Simultaneously, the students themselves change – how many of us can say we are the same as we were just a few years ago? In my case, 6.917 years ago – not that I was counting – I never would have imagined my graduate career would include getting married and starting a family. I certainly never pictured myself defending a bioinformatics dissertation on a conference call with my committee in four different time zones, over two continents – let alone be asked to give a convocation speech. Looking back, I have learned not to underestimate the importance of adaptability.

So, for the undergraduates in the audience – if you truly enjoy technical research, your endurance level is higher than your IQ, and you are ready for change, you will be a step ahead if you choose to pursue an advanced degree. And for all of us postgraduates – although our parents may not fully understand the work we have done, we can look back at our accomplishments with pride, -- and look forward with excitement to tackling those great problems that remain unanswered.

Thank you.