

Presidential Inauguration Presentation

Slide 1: Hello, I'm Rachel Ende, a senior biology major here at IWU and I'm here today to talk about how individualized research and a liberal arts education have combined to help me reach my goals

- Being from Colorado I get asked a lot about how I chose Wesleyan and it is always the same answer...
 - 1) small school
 - 2) a strong science program
 - 3) great opportunities to do undergraduate research

Slide 2:

- I came to college with a strong desire to do undergraduate research and have been fortunate enough to do just that. My research involves the photosynthetic bacterium *Anabaena*. While it doesn't have the quadrillion cells and numerous cell types an elephant does, it does have a couple of hundred cells and 2 different cell types. It is these qualities, its combination of simplicity and complexity, which make it such an intriguing organism to study. Throughout the past two years I have been able to describe novel gene functions and their place within a larger genetic network.

Slide 3:

- In addition to knowing that I wanted to do research, I also knew that I was going into a strong science program. Naturally, I was under the impression that you learn to be a scientist by taking science courses. Thus, I imagined a course load full of science labs and math based classes. I had not yet considered how going to a liberal arts university would change much of this previous understanding.

Slide 4:

- Throughout my time at Wesleyan I have taken a wide variety of courses outside of the sciences, including: Jazz History, the Greek and Roman Studies course Atoms Gods and Monsters, Shakespeare's Shrews, and the may term course Russian Culture and Society Through Film. I did not realize it at first, but these classes have been an integral part in shaping who I am as a student and as a scientist
- While my science classes have been integral in developing my scientific abilities, the additional exposure to a diversity of subject matter and ideas has also provided me with many tools. Tools I can apply both to how I interact with the world, and to the way I approach scientific research in the future. These courses have reinforced and instilled in me several important principles that I carry with me into my research.

Slide 6:

- My philosophy class was full of discussions and readings that were constantly challenging me to look at a problem or idea from multiple perspectives. This skill is a great asset in research

situations such as designing a new experiment, or attempting to problem solve when inevitably you don't receive the results you expected or wanted.

Slide 7:

- Throughout my Shakespeare class I learned to look for the alternate meaning behind what I was reading. A principle that applies directly to research, for just as the same picture can be seen as a rabbit or a duck, the same data can be interpreted in different ways.

Slide 8:

- In my jazz history class, I was struck by the fact that jazz becomes about so much more than the individual musician, it is the work of talented musicians coming together to improvise and play together as a whole. In the same way, scientists and scientific disciplines must collaborate for new discoveries and growth.

Slide 9:

- This idea of collaboration is at the heart of a liberal arts education with a wide range of academic disciplines coming together to create a holistic and diverse learning environment. As I have begun to reflect on my time here at IWU and realize what I have gained from these classes and many others, I have come to realize the truth of Albert Einstein's words when he says—READ QUOTE--.

Slide 10:

- I would be remiss if I spoke about IWU and did not mention the incredible mentoring that goes on here. The mentoring that I have experienced here at IWU has helped me grow as both a person and as a scientist. This mentoring has taught me to trust my own instincts and abilities, allowing me to work with increasing independence, and greatly improving my scientific writing. I truly believe the mentoring and well-rounded education I have received has enabled me to pursue a career as a microbiologist.

Slide 11:

- After graduation I will be attending graduate school at the University of Virginia to get a PhD in Microbiology, with a specific interest in molecular biology. Beyond graduate school I would like to continue with scientific research and teach as a professor, as I truly love the idea of being able to mentor the next generations of future scientists.

Slide 13:

- Even though I have chosen to follow a path to graduate school, and am a proud mini-me of Dr. Cozy, the inherent beauty of the individualized research opportunities and liberal arts education I have been given is that students are prepared for a wide variety of career paths. Examples of such career paths will be identified in the following responses from Megan and Christina.