

June 21, 2023

Re: Women of Achievement Award

Dear Selection Committee:

It is a pleasure and a privilege to provide a letter of support for the nomination of Dr. Heather Allen for the Women of Achievement Award. Heather was an amazing woman who was taken from us far too early. In her short life, she achieved great things and had a positive impact on so many people. She is a perfect example of the type of role model that young girls and women can look up to for inspiration.

I met Heather when she was an undergraduate student at the University of Iowa. She performed Honors Research in my laboratory, working on a project related to how human papillomavirus (HPV) causes cancer. Heather was an outstanding student and researcher. Part of her research involved collecting specimens from the clinic. Everyone there adored her because she was always professional and positive, with a bright smile on her face. In the lab, she was pleasant to interact with and often provided inspiration to my often-sullen graduate students. Heather was an absolute pleasure to mentor. Her undergraduate work resulted in a peer-reviewed publication, something that is uncommon for undergraduate students. She did a stellar job in writing her thesis and graduated with Honors.

After college, Heather went on to earn her PhD at the University of Wisconsin-Madison, where she performed studies to identify genes in bacteria in the wild that confer anti-microbial resistance, an extremely important area of research, as antibiotic resistant bacteria have become an enormous problem in medicine and agriculture. Not surprisingly, Heather breezed through graduate school with many publications in top-notch journals in her field.

When her PhD was completed, Heather decided to come back to Iowa where she continued with her career at Iowa State and the USDA looking at how bacteria develop antibiotic resistance. Heather's research provided novel insight into how viruses of bacteria called phage are important for antibiotic resistance in bacteria in pigs. Understanding this process is critical for developing the means to overcome the resistance, and her work continues to have long-lasting impact in the field. Not long before her death, Heather won the very prestigious Presidential Early Career Award. This is a testament to how experts in the field not only were amazed by Heather's achievements but were also confident that she would continue to achieve great things if given the opportunity.

Heather's accomplishments are even more incredible when you know that she was undergoing a long and hard battle with breast cancer for almost a decade before she succumbed to it. Her blog "Some Girls Prefer Carnations" became an inspiration to many. Her scientific background and knowledge of cancer allowed her to explain some very difficult concepts to her audience. Her ability to do this, along with her positivity attracted a wide and dedicated readership. I am sure that her writing is still read by many to this day.

Heather's death was a hard thing to accept. She was such a wonderful person who did so much with the time she had. I can only wonder how much more she would have accomplished if she hadn't died at

such a young age. The results of her research live on so that others can build upon them. Her messages and stories from her blog can still be read by others who need inspiration. Heather exemplifies what it means to be a role model. Recognizing her with the Woman of Achievement Award will provide inspiration to young girls and women who are interested in pursuing a career in science. It is for these reasons that I believe that she is a perfect candidate for this award, and I give my full and enthusiastic support to help make this happen.

Sincerely,

A handwritten signature in cursive script, reading "Al J. Klingelhutz". The signature is fluid and elegant, with a prominent initial "A" and a long, sweeping underline.

Al J. Klingelhutz, PhD
Professor, Microbiology and Immunology