

Dr. Jennifer (Joyce) Young



Sept. 5, 1981 – June 19, 2012

Dr. Young was scheduled to join the Department of Mathematical Sciences at Clemson University as an assistant professor in the fall semester of 2013. However, on June 19, 2012, during the 2nd year of a three year postdoc at Rice University, she was tragically killed in an accident in Houston, TX along with her baby (she was 7 months pregnant at the time). Both families, along with the University communities of Rice, North Carolina, Delaware, and Clemson were shocked and devastated. Dr. Young's parents decided to honor and commemorate her life of accomplishment by creating a scholarship for mathematics students at Clemson.

It was obvious at an early age that Jen was extremely near sighted. When she was 7, she had a series of surgeries in Wilmington, DE for a detached retina. The amazing skills of Dr. Charles Wang, a brilliant and gifted surgeon, gave her the best possible vision and his extraordinary care and devotion continued throughout her life by finding her the best eye care possible in Chapel Hill and Houston. Although Jen was legally blind, she never gave it a second thought. She excelled in school and at many of the activities she tried, including youth league slow pitch softball and the high school band flaggers that she captained as a senior. Jen traveled extensively with her family in the US and Europe. The European travel included annual visits to her mother's home town in the Veneto Region of Italy, and she spoke the language fluently.

University of Delaware (UD) B.A. Mathematics 2004



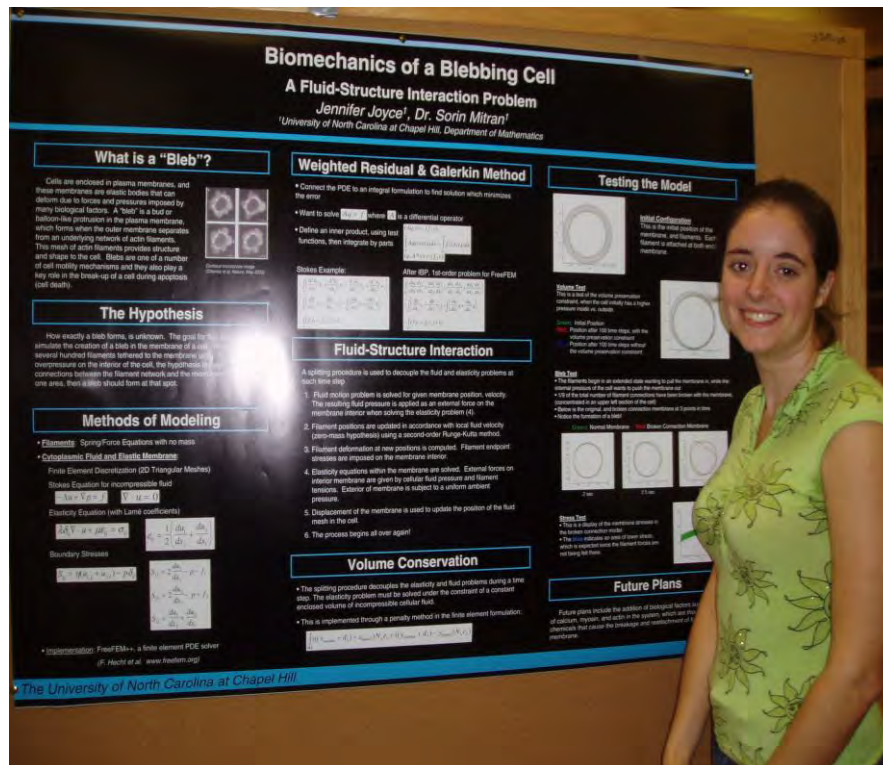
When Jen started at Delaware, her major was elementary education (probably because her mom was a high school teacher). After freshman year, however, she decided to switch to mathematics. It took an extra year to catch up on the missed courses, but she graduated from the University of Delaware in 2004 (summa cum laude) with a B.A. degree in mathematics

[Jen and Gavan (husband) at UD graduation 2004]

University of North Carolina (UNC)

M.S. Mathematics May 2008

Ph.D. Mathematics May 2010



Jen presenting her UNC research on the “blebbing cell” at a conference

After graduation from Delaware in 2004, Jennifer wanted to continue her studies in graduate school, and it looked like UD was the best option until a last minute invitation from the University of North Carolina arrived. After a visit to Chapel Hill, she fell in love with the area and accepted the UNC offer. During the spring semester of her first year, she met Dr. Sorin Mitran in a numerical linear algebra class that he was teaching. He was very impressed with her attitude and performance, so he offered her a summer research project. Subsequently, she asked Dr. Mitran for research ideas for her thesis. He suggested looking at problems arising in the mechanics of micro-structured media. The initial fluid structure interaction work was the subject of her master’s thesis (“Mechanics of a Blebbing Cell”). For her doctoral thesis (“Continuum-Microscopic Modeling of the Cytoskeleton”), the model was then extended to include cytoskeleton formation from disperse acting filaments advected and diffused within the cytosol. When Jen entered UNC she thought she could complete a Ph.D. in four years but it ended up taking six because she underestimated the research necessary to complete the task. Her determination, perseverance, and never-give-up attitude served her well, and Dr. Mitran’s expectancy of excellence was just what she needed. They became great friends, and his guidance and recommendation was a key factor in the postdoctoral appointment at Rice University following the completion of her Ph.D. degree at UNC in 2010.



Dr. Young at Rice University with (left to right) Thomas Callaghan, VIGRE Pfeiffer Instructor Paul Pfeiffer and Professor Steve Cox

Rice University

Three-year Postdoc 2010-2013

Jen was the Pfeiffer-VIGRE Postdoctoral Instructor of Computational and Applied Mathematics (CAAM). Her interests included biomechanics, multi-scale modeling, scientific computing, and math education. Professor Steve Cox, who was responsible for bringing Jen to Rice, stated that he had never seen such an ardent junior faculty member. She was accomplished, well rounded, mature, confident, and yet gracious. Associate Professor Beatrice Riviere (Jen's postdoc advisor) said she was an exceptional researcher with a passion for mathematical biology. Jen was a true collaborator and a key partner in establishing a relationship with scientists at the Texas Medical Center. She also greatly enhanced the Department's teaching and mentoring roles. Her bonding with students was amazing and led to some of the best teaching evaluations in CAAM history. At Rice, she was frequently invited to speak and present her research in the US, Canada, and Europe. As an associate one of the residential colleges, Jen spent many hours sharing her wisdom with undergraduates. She also participated in outreach activities and taught Houston high-school students the basics of computational neurosciences. In a very brief time, Jen had a great impact on many Rice students, staff, and faculty.

In fall 2011, Jen applied for a faculty position at Clemson University and was selected on a campus interview January 26-27, 2012 (Thursday & Friday). Gavan accompanied Jen to Clemson for the interview, and their stay extended through the weekend. A tour of housing possibilities in Clemson on Saturday morning by Jen and Gavan and a trip to waterfalls and the high mountains north of Clemson with two faculty members and their wives were particularly enjoyable for everyone. A formal contract of a faculty position in the Department of Mathematical Sciences was rendered a few weeks later and accepted by Jen a few days after receipt with the provision that the starting date be August 2013 so that she could remain at Rice for the third year of her postdoctoral appointment. Clemson Department Chair Bob Taylor reported that Jen was a very promising research mathematician with a genuine interest in teaching who would have been a very good faculty member.