Trajette Jackson

- Her life's journey has been a series of people, programs, timing and luck
  "Life reveals itself as it is traveled"
- Participated in high school in MSHP (Math and Science Honors Program) at Arizona St. which introduced her to 100 students who looked like her – African Americans, Indian Americans and Hispanics. This program has won awards for mentoring. This was a defining moment
- Director of Program was Dr. Joaquin Bustoz, Jr. who talked her into attending ASU; 2 ½ years later Dr. Bustoz asked her why she was majoring in engineering.
- In college, she heard a lecture by Dr. James Murray on "How the Leopard Got His Spots" which uses a mathematical formula to explain how the leopard's pigmentation develops. This was her first experience with the collision of math and other subjects. Discovered that math could be used in the biological sciences to make important advances. Decided this is what she wanted to do.
- MARC started the same year she heard Dr. Jackson's lecture. Mathematics was considered part of biomedical research which allowed her to participate. Through this program she was able to explore applications and scientific parts of being a mathematical scientist.
- ASU provided a nurturing environment for her. The faculty there had an attitude for mentoring. No one tried to mold or shape her, they allowed her to discover and find her own way. She was given the freedom to just be there, learn and grow. "Walk beside me and let's figure it out together".
- Out into the World – Trajette thought she could go to grad school and "knock them dead". Thought she was well prepared. She had acquired confidence at ASU. Confidence is one of the most important things to succeeding in graduate school
- In Graduate School her confidence was shattered. She chose Washington because of Professor Jackson in Dept of Applied Mathematics. She concluded that she was not as prepared as the rest of the 6 students who were accepted into the grad program, all of whom had come from top undergraduate schools: Oxford, Harvard, Swarthmore, Cal Tech. She realized she had become too comfortable at Arizona St. and realized she had not delved deeply enough into the mathematical sciences as she could have. Her support system was miles away. She started buying into the myth that she was not as strong academically as the others. When she first started showing up for study group there was some awkwardness among other students. She realized she was probably projecting that lack of confidence to others.
- She had to make the decision to succeed. Had to ask herself if this was as important to her as she originally thought. Learned a lot about herself. She realized that the other classmates had not lost confidence in themselves because they had the expectation that they could be successful. She realized that she had lost connection with the purpose that brought her to grad school. She worked harder.Realized she as much ability as the other students; she just needed more training and application. Decided to use the support system she had back at ASU.
- 2nd year of graduate school, she decided to knock on some doors. She introduced herself to Dr. James Murray. She asked if he would train her to be a mathematical biologist. Gathering the confidence to approach him was the beginning of her regaining

her overall confidence in herself. Dr. Murray became her PhD advisor. She began to do research on how tumors grow and how to best treat them.

- Realized she had to leave math department to do more cross scientific research. Met Dr. Peter Senter from Seattle Genetics. He was working on building strategies to deliver medications to tumors. His team became her collaborative research team. She worked on her dissertation in drug delivery strategies.
- 2 Post-Docs 1) Institute for Math and Its Applications – allowed her to expand her research breadth. 2) Duke University – helped her become better teacher and introduced her to a broader base for research collaboration
- University of Michigan offered her a position in her 2nd year at Duke. She initially wanted to turn it down because it was outside of her comfort zone but with counseling, took the position.
- Academia – the academic culture was a culture shock to her. It is easy to stay below the radar as a professor because of the school's size. She made a decision to not be invisible, to be an active part of the community
- Building a Research Program – worked on drug delivery systems, tumor responses and progression of treatment of cancer research. Began mentoring graduate students and post docs
- Advice – Own your rarity; own excellence in yourself. Find your dream and relentlessly pursue it.

Q&A

It would have been helpful if professors had pointed out her homework deficiencies so she would know what she was lacking.

Research experience as an undergraduate is invaluable. It would be great to let first year students know how difficult the first year was going to be.