It has been just a decade since Dr. Stacey Finley graduated summa cum laude from Florida A&M University (FAMU) with a bachelor's in chemical engineering. She has packed so much scholarship, research, teaching and service into those intervening years that today, at age 32, she might easily be considered a prodigy.

The tenure-track assistant professor earned a Ph.D. in chemical engineering five years ago at Northwestern University and proceeded to a postdoctoral fellowship at Johns Hopkins University School of Medicine, focusing her research on developing predictive mathematical models to study tumor angiogenesis, cancer metabolism and cancer immunotherapy.

Stacey D. Finley
Title: Assistant Professor, Department of Biomedical Engineering, University of Southern California
Education: B.S., chemical engineering, Florida A&M University; Ph.D., chemical engineering, Northwestern University; postdoctoral fellowship, Johns Hopkins University
Age: 32
Career mentors: Dr. Linda Broadbelt and Dr. Vassily Hatzimanikatis, Northwestern University; Dr. Aleksander Popel, Johns Hopkins University
Words of wisdom/advice for new faculty members: "To young researchers I would say: Find something that you enjoy doing where you can make an impact in your field and go for it full force."

PHOTO BY ED CARREON

No one had to push Finley toward STEM disciplines in Kansas when she was in high school, or elementary school for that matter. She was drawn to science and math at an early age and urged by her parents — her teacher mother and pastor father — to bring home top grades in all of her classes and to pursue whatever field she chose.

"My parents encouraged me to go after the things I was interested in, but I didn't have any direct role models [in the field] before college, so when I got to FAMU it was a really great environment for me because I could see faculty who looked like me. It was a great environment for me to grow and develop in engineering," she says, noting that her high school in Kansas only had about 30 percent people of color, so FAMU, an HBCU, "was a great environment for me."

"I applied to lots of undergraduate institutions," she recalls, "but someone from FAMU came up [to Kansas] and talked with me, and I went down for a visit and really fell in love with [the] campus and the atmosphere."

With a full academic scholarship, after completing her core courses in the first two years, she enrolled in the joint Florida A&M University-Florida State University School of Engineering where she studied chemical engineering.

"My work is in the area of cancer — there are lots of different driving factors that influence the growth and development of cancers, and two of those are the areas I am studying in my own research," Finley explains.

"One is called angiogenesis, [which] is the growth of new blood vessels, the blood vessels are the way in which the tumor gets the oxygen and nutrients it needs to grow and survive … and what we're looking at doing in my research is to understand the signaling pathways that lead to the growth of these new blood vessels in the tumors and how we can stop those blood vessels from growing."

In addition to co-authoring 12 peer-reviewed articles and making numerous presentations, Finley also has been an advocate for diversity in the academy. She was a member of the Diversity Leadership Council at Johns Hopkins University, and president of the Black Graduate Student Association at Northwestern University.

Finley says that, when time permits, she focuses on increasing the numbers of underrepresented minorities and women in STEM fields and in academia. She attends events where she can talk to college and high school students about how to succeed in STEM careers. Finley says her presence at these forums may make a difference.

"I think a lot of it is [having] exposure to different opportunities and seeing role models who look like them," she notes.

Mentor and former Northwestern adviser Dr. Linda Broadbelt calls Finley "the whole package," adding, "She is extremely smart, extremely rigorous, has very high standards, is very personable, is an excellent communicator, she writes well, and presents well, so on all the dimensions you want a good graduate student to be outstanding, Stacey was."

Today, she says, "Stacey is becoming, or already is, a star."

— Pearl Stewart