AWBC MAGAZINE

March 2019

Talking With

Dr. Carla Pugh

A Genius In Our Midst

Women In Leadership Roles
Black Female Entrepreneurs
Education Starts At Home
Political Positioning

On The Cover

"Dr. Pugh is a pioneer in the use of sensor technology to objectively assess trainee performance in skill acquisition and we're thrilled to bring her back to Stanford. Her groundbreaking work has shed light on the shortfalls of our current training systems and how we can solve this challenge," said Department of Surgery Chair Dr. Mary Hawn. "We look forward to watching her take her program to the next level here at Stanford."

Pugh's research spans the fields of simulation, sensors, assessment, and big data. She has essentially created a new field of study on the science of touch as it applies to clinical skill acquisition.

"With sensors and simulation-based courses and curricula, Dr. Pugh is leading a revolution of medical education around the world," said School of Medicine Dean Lloyd Minor. "She is a pioneer as well as a gifted surgeon, a natural collaborator, and a trusted mentor. I couldn't be more thrilled to welcome her back to Stanford."

Pugh is the first surgeon to receive a PhD in education, which she earned at Stanford in 2001. Pugh completed her medical degree and residency at Howard University and, most recently, has worked as a professor of surgical education at the University of Wisconsin-Madison.

"I decided to join Stanford's Department of Surgery because it provides an unparalleled opportunity to collaborate with top researchers, clinicians and entrepreneurs who desire to make indelible and transformative contributions to the future of patient care," said Pugh.

Dr. Carla Pugh

Q: As an incredibly successful African American Woman, how are you feeling, about your success, at this time in our history?

A: I feel incredibly blessed. Passing on real passion aligns with my career. It's a perfect fit. It's not easy and perfect, but the disappointments don't ruin my day. My internal passion aligns with things that excited me as a young girl, a student, and as faculty. That's what the passion is rooted in. I've had great results, and implementation, with key pivotal groundbreaking results. Every 5-7 years a new discovery has been made.

Q: Do you recall, at what point in your life you made the decision to become a doctor?

A: I decided at 5 years old, I was going to be a doctor. Both my parents were delivered at home, by midwives. These midwives were my aunts. One of my parents was born in Mobile Alabama and the other in Mississippi. My parents told me the stories behind their births when I was a child, and the midwives who delivered them became super women to me. I began to think of myself as a doctor. Once, when I was very young, I tried to listen to a lady's ankle in the grocery store with a stethoscope my mom had bought me.

Q: What about later in your life? Your career is filled with innovation and creative genius regarding medical advances. How did this progression occur?

A: Most memorable, was the day I decided to become a surgeon. I was in 9th grade and our class was shown a video of a surgical technique. Ironically, later in my career, while in medical school, I got to operate with the actual surgeon who was in the career defining video that I watched in 9th grade. Destiny?

Q: How were you able to express your creativity, while still in high school? It seems that your interest in medicine became heightened during that period.

The creativity and desire for hands on learning was always there. I had a toolbox in high school, and I was always taking things apart. Currently, the term for that is "Maker". I would fix things such as bikes and radios. I was ultra curious about how things were made, beginning as far back as 7th and 8th grade. My mom gave me leeway and I had to show her I was responsible with tools and soldering irons. I even had a business plan, based on receiving Christmas presents. I wanted to receive the money spent on gifts so I could buy tools, yarn, thread, glue guns, and a wrench.

Q: Who was your early mentor?

A: My mom was my mentor, support, and my foundation. My mom started her own company at a young age, and she taught me to be fearless, and supported my creativity. She allowed my sister and I the freedom to be imaginative. Our house was like a piece of art, which was representative, of my mother's creativity.

Q: You grew up in California. What were the cultural influences for you, as a young African American girl?

A: I grew up in a very multicultural environment, in Berkeley California. We celebrated the cultures of many family and friends. I have never had issues revolving around different cultures or ethnicities. Berkeley was a wonderful place to learn about these things, and we did.

Q: You have many distinctions. What might be regarded as one you are most proud of?

A: I am ***the first*** surgeon period, in the US, to get a PhD in education. It was very organic. I knew there was a need for better enabling 3d visualization, of the human anatomy. Currently I have 3 issued patents, with 2 pending. I am most focused on how I teach my residents to partner with patients, in order to create health self-awareness. Sometimes, I think about it and it pains me, because some people don't get the care they need, because they don't have the knowledge that is needed to understand and navigate the healthcare system. I tell patients to ask their doctors for the information they will later need, in order to ask the right questions. I want the average citizen to know how to understand and get the most out of the healthcare system. Traditionally, healthcare providers have practiced ***passive medicine***, based on the doctor telling the patient what to do. We need a system in which patients can be full players, in their care. This is what fuels my passion. It's all about the education of physicians *and patients.* The technology can be used to teach patients, and not only doctors. Change takes time! I'm in it for the long haul. My endgame is partnering with patients and physicians, to use technology, in a way, that maximizes the human experience and greater knowledge for better health.