

Health and Wellness for All

By Kevin M. Briscoe

When Portia Singh was an undergraduate student at Grambling State University, she made a decision that changed the course of her career and placed health and wellness near the center of her life.

“My advisor encouraged me to apply to a program that was (designed to get) minority students interested in pursuing a Ph.D. in biological sciences,” she says. “I was a computer science major and hadn’t really thought I could apply computer science to biology.”

Later, while enrolled in the Ph.D. program in biomedical engineering at Carnegie Mellon University, she started doing research at the school’s Quality of Life Technology Center. The center focuses on developing “intelligent systems” that enable elderly adults and people with disabilities to live more independently. Intelligent systems are high-tech machines that perceive the world around them and respond to it.

“I fell in love with the field of research, as it allows me to combine many skills and interests together to provide solutions to help people,” says Dr. Singh, who is now a researcher and engineer at Philips Research North America, in Cambridge, Mass., and a member of NSBE’s Boston Professionals Chapter.

“When an elderly person, like your grandmother or grandfather, begins to age, many family members and friends work together to help that person keep a good quality of life. My current work looks at using mobile smartphone technology and mobile apps to provide tools for family and friends to organize the help they provide to the elderly person. Additionally, we provide technology, like tablets and easy-to-use apps, to the elderly, to assist them in taking care of their health at home.”

To accomplish her work, Dr. Singh uses science, technology, engineering and math (STEM) tools such as signal processing, statistical modeling, machine learning, wearable sensing technologies and mobile technology.

Dr. Singh is a fitness enthusiast as well as an engineer. In her off time, she leads a women-only dance fitness program called the “Boss Chick Dance Workout,” which is a “hip hop-inspired workout that hopes to give women a safe place

to have fun, work out and get support from other women to better their health.”

“This is a hobby of mine that is not directly related to my work at Philips,” Dr. Singh explains. “However, it does bring into focus...the importance of exercise to future health and well-being.”

She is also learning skills to be certified to provide exercise training to the elderly.

Besides her involvement with NSBE, Dr. Singh is a member of Alpha Kappa Alpha Sorority, Inc. and the Institute



Portia Singh, Ph.D.

“... We provide technology, like tablets and easy-to-use apps, to the elderly, to assist them in taking care of their health at home.”

– Dr. Portia Singh, Philips Research North America

of Electrical and Electronics Engineers (IEEE). She enjoys working with all of these organizations to participate in social activities as well as community service, including mentoring young men and women who are applying to graduate school and helping them secure graduate school funding and engage in STEM research. ■

