

Regional

Shabangi wants to excite young about science

Mention the word scientist and most people conjure images of people in lab coats conducting experiments. While this picture is certainly accurate for many, some scientists are now putting their experience and expertise to an even greater cause – attracting young people into careers in science to help ensure that they can make their own contributions to society.

“I had a very good professor of chemistry in college. I admired the way he was teaching and helping us and that inspired me,” said Masangu Shabangi, an associate professor in the department of chemistry at Southern Illinois University Edwardsville. “And I said that maybe one day I could also help a student like myself as that teacher had been helping us.”

Born in the Democratic Republic of Congo, he obtained his bachelor’s degree in chemistry from Asbury College in Kentucky and his doctorate in analytical chemistry from the University of Toledo in Ohio. Like many other college professors, Shabangi decided on a career in academia after seeing a good teacher in action. Today he works to instill his passion for science in students from underrepresented groups.

“In summer camps on campus, kids from East St. Louis, for example, come and sometimes just pass by the class where I am teaching,” Shabangi said. “They look at me and say, ‘Wow, we didn’t know that an African or African-American can also be a science teacher.’ Those are things that kids need to see, especially at young ages. I tell them that they can do this, and when they do that they will be seen as an example that other minorities can follow.” He also said that he believes that we need to change the way we teach science to kids in schools, and that schools should be charged with guiding students into science careers.

“They need to be able to push students,” he said. “I think the mentality here is don’t push them, don’t force them, let them choose. There is a time to let stu-



Dr. Masangu Shabangi with his two young children

dents choose and there is a time when we as a society, institution or school need to choose what’s best for our students.”

That’s the way many kids in Asian cultures are taught. Discipline and demanding goals are considered the norm in many Asian countries. That is one of the explana-

tions given as to why kids of Asian descent do better than any other ethnic group in the sciences.

“I think discipline and setting high standards is missing,” Shabangi said. “Today, even if you think about schools like MIT and Harvard, people know they are great

schools. But they don’t realize how life is for students on campus. They don’t babysit their students. It’s only the smartest that survive. It is tough and very competitive. You need to push your students if you want them to be the best.” Of course, the great scientists work on important projects. In

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his own research, Shabangi has worked on what are known as water-soluble vitamins, basically the different types of vitamin B and vitamin C.

“Vitamins are very important to understanding human health,” he said. “It is interesting in the sense that the body doesn’t know how to synthesize the vitamin, so we get the vitamin from food or supplements. If you get more than what you need, the body doesn’t know how to store the excess. It doesn’t know how to synthesize, so it’s kind of using it as it comes, as it’s needed.”

“Vitamin B1 is important in a sense that is a co-enzyme,” Shabangi said. “What a coenzyme does is sort of allow the enzyme to be ready to work. If an enzyme doesn’t have a coenzyme, it would just be a big protein molecule, not able to catalyze a reaction. You have to have the coenzyme in place. I did studies with vitamins, looking at the mechanisms by which thiamine-dependent enzymes catalyze reactions. I was trying to make a correlation between the steps within the mechanisms.”

Regardless of the research topic, Shabangi said that young people should be shown that the work of scientists is both valuable and exciting. “It’s enjoyable, challenging in a good way,” he said. “It allows me to understand other non-scientific subjects. It’s kind of central to many fields out there.”

Aldemaro Romero is the Dean of the College of Arts and Sciences at Southern Illinois University Edwardsville. His show, “Segue,” can be heard every Sunday morning at 9 a.m. on WSIE, 88.7 FM. He can be reached at College_Arts_Sciences@siue.edu.

Photo courtesy of Lea Shabangi