

## Regional

# Cuban scientist discusses exchange with SIUE

Last year, Southern Illinois University Edwardsville signed an agreement with the University of Havana to develop exchange programs for faculty and students of the two institutions. Mayra Heydrich, a professor of microbiology at the University of Havana, is in charge of facilitating these programs for foreign students. She recently visited SIUE. When asked to compare American and Cuban universities, she said that she finds both similarities and differences.

"For me, in my field especially, the main difference is the fact that you have a lot of good infrastructure, high technology here that we really don't have in Cuba," Heydrich said. "That's why we consider it so important to make joint research projects, to do academic exchanges that allow us to take advantage of these technologies and equipment."

Born in New York City, Heydrich grew up in Cuba. She received a bachelor's degree in biology and a master's degree in microbiology from the University of Havana and her doctorate in biology from the Eötvös Loránd University in Budapest, Hungary. As a microbiologist, Heydrich has been studying bacteria associated with a number of food staples, such as sugar cane, rice and corn.

"These bacteria live associated with the roots of the plant, so you can isolate those bacteria and then prove if they are able to produce some kind of substances that enhance their production," she explained. That ranges from plant antibiotics to substances that enhance their growth. She is quite aware, she said, of the importance of corn to the Illinois economy.

Among the discoveries made by Heydrich and her colleagues are substances and microorganisms that not only improve the length of the roots, but also can control pathogens that are damaging agricultural products. She has also been looking at the relation between bacteria and pollution.

"There is pollution in the urban waters (of Cuba)," she said. "It's true that we don't have big industries, but sometimes the waste water goes to the river and we don't have a lot of



SIUE photo

Dr. Heydrich while recently being interviewed for the radio show Segue by Dr. Aldemaro Romero during her recent visit at SIUE.

plants for adequate treatment. Industries create some of the products that lead to chemical pollution, but the main source of pollution comes from houses that go directly to the river." When asked in what areas of the sciences she feels Cuba has advanced the most, she is unequivocal.

"Biotechnology, health, and biology are very strong in Cuba," she said. "In general the natural sciences have made great progress in Cuba, and people who work in these fields are very well prepared thanks to international cooperation. Not only because we receive the knowledge in our country, but

also because we have had the possibility to visit and even to work in different institutions." It is this type of cooperation that SIUE will soon embark upon with the University of Havana. Heydrich said she thinks that this initiative will include short-time courses for undergraduates and graduate students on

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both campuses.

"Another possibility could be for us to receive professors from SIUE who can give some lectures and in that case we can invite different people from different institutions in Cuba and take advantage of this possibility," she said. "Also, to send our faculty here to stay for one, two or even three months conducting research as we have done with institutions in other countries."

This summer SIUE students will be traveling to Cuba for the first time to study Cuban society, history, politics, geography and culture. More courses are being planned for the next academic year. Just how different will SIUE students find their experience at the University of Havana?

"It will be very different, but it will be a great experience," said Heydrich. "Cuba is a country that has very nice and warm people. We are a small country with a lot of economic problems, but people are very well prepared. For students it will be a big change because they won't be connected the whole time to the Internet like here." She also said that Cuba is a very safe country that warmly welcomes foreign visitors, even with the political tensions that exist between Cuba and the United States.

"We always have the hope that the economic embargo will stop someday and that we will be able to have the relationship that we used to have before," Heydrich said. "I think that in the academic world, we have to fight very hard so that in the near future we can have normal relations."

*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\_Sciences@siue.edu.*