WPI professor impressed with Cuba’s progress in life sciences

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WORCESTER – A Worcester Polytechnic Institute professor who was part of a life sciences delegation for the U.S. that traveled to Cuba last month said he was impressed by the robust biotechnology industry he saw in the country.

Kamal Rashid, director of WPI's Biomanufacturing Education and Training Center, said he also believes the thawing relationship between the two nations could produce significant medical advances in the U.S., as it gains access to Cuba's research and products.

Mr. Rashid was a member of a delegation that also included representatives from the Massachusetts Biotechnology Council, Harvard Medical School, the Massachusetts College of Pharmacy and Health Sciences, and Takeda Oncology. The group accompanied U.S. Reps. Seth Moulton and James McGovern to Cuba the week of Feb. 20, staying in the country four days.

"I had great interest (in attending the trip)," Mr. Rashid said, adding that his university was invited by the biotechnology council to send a representative. "I've been in the area of biotechnology for 31 years, I had known a little bit about the Cuban field of biotechnology, but I had interest in seeing what their progress was."

According to Mr. Rashid, the delegation met with Cuban officials at the nation's Ministries of Public Health and Foreign Affairs, where the hosts presented the advances made by the country's biotechnology industry. Mr. Rashid acknowledged those presentations might have had political motivations, given the communist government's control over much of the country's industry.

But he said he and other members of the U.S. delegation were impressed by their meeting with officials from BioCubaFarma, a biotechnology and pharmaceutical organization that oversees 31 centers and institutes and 62 production facilities in Cuba. Their data, Mr. Rashid said, "didn't look like fabricated data," and he believes the 850 life sciences products Cuba said it exports to 44 countries were further evidence the country's accomplishments in the field were not a nationalistic exaggeration.

"They were very proud of their achievements. You could see it in their faces, and in their presentations," he said. "We were very impressed by that."

Mr. Rashid said he was also surprised by the advances the country was able to make in its biotechnology research and development. Cuban scientists have been tackling major worldwide health threats like dengue fever and the Zika virus, for example, and have also developed a vaccine for lung cancer, he said.

"They have done a lot of work ... that would save the U.S. a lot of time, effort and money in these areas they (Cuba) have already made leaps in," Mr. Rashid said, adding the Cubans have already reached phase two clinical trials for some of their more ambitious medical products. "That takes a lot of time and a lot of money (to get to that point)."

Cuba would also benefit from getting access to the Unites States' biotechnology resources, particularly those in Massachusetts, which Mr. Rashid said is a national leader in the field. He marveled that Cuba's life sciences sector was able to do as much as it did without that access.

"Considering the size of the country and the limitations they have, I think they've done much more than the other Latin American countries," he said, adding that his impressions were that the country did a "lot of in-house work" to come up with its current level of technology and research. "I think Cuba's way ahead."

The next step in the potential relationship between the life sciences industries of the U.S. and Cuba, he said, will be for the U.S. delegation to expand to include other scientific institutions from around the country. Mr. Rashid said there were also talks during the trip for Cuba to assemble its own delegation, which in time could visit Massachusetts.