EDUCATION
An early look at bioinformatics

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RONALD J. COLLERAN/Buffalo News
University at Buffalo undergraduate David Walia works with Shannon D'Arcy, right, and Jaclyn Shaw to demonstrate the "Next Generation Scientists" program.

For most of Darcy Brown's educational career, science classes have been instructive but somewhat abstract. They've been steeped in theories and ideas that she left behind in the classrooms.

But that's not the case anymore for the senior at Mount St. Mary Academy. The world of science has come alive and is practical.

She's in her second year of a University at Buffalo Center for Computational Research bioinformatics program geared to high school students. And when she studies DNA in biology class, she can bring that lesson to life by writing a DNA program.

The innovative and rigorous pilot program, called "Next Generation Scientists: Training for Students and Teachers," merges life sciences and computational science. It is being taught at Mount St. Mary's, Orchard Park High School and City Honors School. About two dozen students are involved in the program; they work on smaller versions of the computers used at the research center which were donated by Hewlett-Packard.

Brown and the three other students in the program demonstrated and spoke about the program Thursday at Mount St. Mary's. Attending were officials from UB and Verizon, which funded the program with a $50,000 grant.

"When you take science in school, it's really not practical," Brown said. "Bioinformatics has shown me how to apply science in real life. It has really opened doors for me."

E. Bruce Pitman, associate dean for research and sponsored programs at UB, said the program aims to bring bioinformatics to high schools by developing a curriculum and training teachers. It will expand into other schools in upcoming years.

The students work with a couple of selected teachers in their schools who also are receiving training, and three UB undergraduate students.

Because they are all graduating, Brown said they are trying to recruit students for the program.

"Bioinformatics is really a different experience," she said. "You think of computers and computer programs and the way they are, and now you know the work that goes behind them."

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