



Caldwell computers to play role in cancer research

The county's school system is the state's first to sign up with a U of L research project using computers' wasted capacity.

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PRINCETON, Ky.--Caldwell County High School sophomore Mary Rachel Ray doesn't spend much time thinking about the nighttime activities of her school.

"It's just an empty building," she said.

Ray said that may change as the school participates in a University of Louisville program called the Kentucky DataSeam Initiative, which allows scientists at the university's James Graham Brown Cancer Research Center to link with 70 Caldwell County school computers when the students aren't using them.

From 170 miles away, Brown Center research specialist John Trent can use the computers to compare the effects of drug compounds on a database of thousands of molecules. This may eventually lead to a drug to specifically target proteins found only on the surface of cancer cells and result in cancer treatments without side effects such as hair loss and nausea, Trent said.



MOLLY HARPER/The Sun *"These are our future mathematicians, scientists and researchers":* University of Louisville cancer researcher John Trent explains to Caldwell County High School sophomores how their school computers will help his search for a cancer treatment be more efficient.

DataSeam founder Brian Gupton compared the search process to having 30 computers in a room with one computer managing the network. The computers are given a huge math problem and the managing machine gives each computer its own small piece of the problem to solve.

"Then they send it back to the machine that's in charge, which puts the puzzle together and spits out an answer," Gupton said, adding later that the addition of Caldwell's computers nearly doubles Trent's search capacity.

A team of university staff and representatives from DataSeam visited Caldwell County High on Friday to explain their efforts to the students and talk about the importance of math and science studies.

Caldwell County is first school district in the state to participate in the DataSeam Initiative, but Gupton said he hopes for participation from schools all over Kentucky.

"It's great because nearly 80 percent of a computer's life-span is sitting unused," he said. "It's a value to the taxpayer because we're putting those machines to great use."

Gupton noted that his company has helped make the school computers run faster and more efficiently, which will save the district money. To bring the effort full circle, he said, university representatives will continue to visit the students to talk to them about careers in technology.

Caldwell computers to play role (cont.)

"We want to inspire and motivate them," he said. "These are our future mathematicians, scientists and researchers. We have to get them early and get them excited ... This isn't about the machines. When you get past the technology and the politics, it's really about educating the next generation and finding ways to fight cancer. It's truly a win-win situation."

Sophomore John Schirtzinger said he's looking forward to updates on Trent's research.

"I just think it's really interesting that they're working to fix a problem that affects so many people and we can feel like we're playing a part in it," he said. "We can watch what they're doing and know that they're helping to ease the suffering of people everywhere."

Ray said there seems to be a lot of cancer patients in Princeton, which makes the school's participation special.

"It's kind of an honor," she said. "We're a small town and we're the first school to do this. It's really interesting what they can do with computers. And it's not like we're using them while they're doing this. They might as well use them."