

# Fitchburg teen tackling some heavy science

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FITCHBURG -- School is out, but not for Michaela Wakefield, a rising junior at Fitchburg High School.

The 16-year-old aspiring genetic counselor is one of 20 students state-wide taking part in the High School Health Careers Program at the University of Massachusetts Medical School in Worcester.

"I think its really cool to get exposed to medical professions early on so that way you can have an easier decision about your career," she said.

The competitive four-week program -- which involves science and math classes, a clinical internship and group-based research project on community health disparities -- is a continuation of her interest in biology.

While many have tried to find the cure for cancer, Wakefield, 16, is interested in preventing it.

Her grandfather died after a pancreatic cancer diagnosis and Wakefield watched as doctors tried to help him.

"I was thinking, while a lot goes into trying to treat the cancer, not a lot goes into prevention," she said.

This observation was the focus of research she presented at Worcester Polytechnic Institute's Science Fair this spring.

Wakefield looked at HeLa cells, an "immortal" cell type often used in research taken from a cervical cancer patient named Henrietta Lacks. She hypothesized that by altering the cell, they could be injected into a new patient similar to the way the vaccine for human papillomavirus works.

Now, during the summer program, Wakefield said she is working on a group research project that looks at the prevalence of eating disorders among the LGBT community.

"Eating disorders are a disparity for that specific community," she said. "In LGBT people it's more prevalent."

She plans to present the findings with possible solutions before the program's close next week.

Though Wakefield doesn't know which college she hopes to attend, the summer program has reaffirmed her interest in genetics, something she first started looking into in eighth grade at Memorial Middle School.

She found she likes interacting with patients and hopes to work as a genetic counselor, someone who reviews risks of inherited diseases with patients.

"It's definitely helped me decide what I want to do for a career," she said.

Robert Layne, director of the summer program at UMass, said the program was created for "academically talented" students from groups underrepresented in biomedical research, such as low-income or first generation college students.

"Each summer there's a new group with new dynamics, but every year they're focused," he said.

Layne said he has worked with Wakefield in several classes.

"She's very analytical, she's very mature and she takes things seriously," he said.

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