

Alfred University student spending summer in labs helping perform tests for COVID-19, antibodies

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Ryan Elliott '21

NORTHPORT, NY - Testing for the COVID-19 virus and virus antibodies are two of the most important and effective tools in the fight against the global pandemic. Alfred University student Ryan Elliott is at the forefront of both in his summer jobs at a Long Island laboratory and urgent care facility.

Elliott, a biology major (minor in chemistry) set to begin his senior year this fall, has been working as a specimen accessioner at Acutis Diagnostics in East Northport, NY, since shortly after the spring semester ended in May. Early this month, he began work as a phlebotomist at Medicenter, an urgent care facility in Huntington Station, NY. The work at both facilities is key in the response to COVID-19, not only in the Greater New York City area, a virus hotspot for most of the pandemic, but throughout the United States.

Acutis is one of the first mass diagnostic laboratories in the country to test for COVID-19, releasing its test under a Federal Drug Administration emergency authorization in March. The test involves analyzing specimens taken from nasal swabs, which are delivered to Acutis from across New York State and locations all over the country.

"Our largest percentage of specimens come from nursing homes. We also get them from walk-in urgent care facilities," said Elliott, who as a lab employee is himself tested twice weekly.

Elliott works approximately 50 hours a week at Acutis. A typical day sees him arrive for work at 3 a.m., taking delivery of the specimens and logging information for each-patient's name, the physician who ordered the test, when and where the specimen was taken, i.e. "There is a lot of data recording," noted Elliott, who handles and processes about 200 specimens daily.

Once the data has been entered, the specimens, along with reagents, are combined and mixed in a vortex device, which prepares the sample for further testing by laboratory technologists and clinicians. Lastly, a doctor will examine the test results to determine if the specimen is positive or negative for the virus.

Elliott said he often drove past the Acutis laboratories, which are located near his home in the Long Island community of Northport, and inquired about working there. "I have experience working in labs at Alfred, and am a registered phlebotomist, so they were interested. I received some training on Zoom and was offered a position," explained Elliott, whose contract with Acutis ends when he leaves in August to return to Alfred.

"This has been a great experience," added Elliott, who is a captain and starting defensive back on the Saxon football team. He credited his biology and chemistry professors for instilling in him the value of proper laboratory protocol. "Working in the labs at Alfred, it has been reinforced in us the importance of being clean and sterile and paying attention to detail. My training at Alfred really helped prepare me for this job."

The job at Acutis is not the only one taking Elliott's time this summer. For nearly a month, he has been working as a phlebotomist at Medicenter urgent care facility, assisting in testing for COVID-19 antibodies. The serology testing determines if a person has had the virus.

Elliott said that over the last winter break he learned of a four-week phlebotomy course and decided to take it. After completing the course, he applied for work at several urgent care facilities and Medicenter offered him a position. He works about 10 hours a week at Medicenter, drawing blood, running the samples through a centrifuge, and sending them to a lab for further analysis, which determine the presence of antibodies. Antibody testing is key to the response to coronavirus, as it helps determine how many people have been infected with, and recovered from COVID-19.

After he graduates from Alfred next May, Elliott hopes to earn an advanced nursing degree before pursuing a career as a nurse practitioner. The experience he has received at Acutis and Medicenter will serve him well in pursuing his professional goals.

"One common question I have noticed on applications (for postgraduate school) is, 'What did you do to help during the pandemic?' Wanting to enter the medical field, I feel this is an essential opportunity for me because of the experience I am gaining while helping fight against an illness that is affecting the entire world."

Elliott sees the experience as being personally rewarding, as he is helping to achieve a greater good by contributing along with countless other health care workers in the response to COVID-19.

"I see the pandemic as an opportunity to help since I have been fortunate enough to be in very good health, with a lot of energy, and can help those who have fallen ill or who are at a greater risk of becoming sick," he said. "That is very important to me. I know many people who can't work because of this. It is rewarding being able to tell people, you can go back to work or, if they test positive, you need to stay home and stop the spread. It is gratifying being part of the process of getting back to normal."