Blind UF grad student determined to succeed

Mona Minkara has a dedicated "team" that's helping her work on her doctorate in chemistry

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Post-doctoral associate Mike Weaver helps Mona Minkara, a legally blind Ph.D. student, with some chemistry work in her office at the University of Florida on Dec. 20. More than 20 UF faculty, students and staff are helping Minkara with her studies. Erica Brough/staff photographer

When Mona Minkara was a girl, a doctor said she was losing her sight and told her mother that it wasn't worth spending a penny on her education.

He was right about her vision, but wrong about the trajectory of her life.

Minkara, now 23 and legally blind, just finished her first semester as a University of Florida graduate student. She's seeking a doctorate in chemistry, a subject that includes equations and other visual material that pose a particular challenge.

"I really love the material," she said. "There's no way I would be able to do this if I didn't love it."

The equations require a high level of understanding to translate into words, complicating efforts to find people to assist her. Yet more than 20 UF faculty, staff and students — who have dubbed themselves "Team Mona" — have joined the effort to help her seek her degree.

The group includes a chemistry Ph.D. who serves as Minkara's eyes in class, students who make digital recordings of her texts and others who help in a variety of ways.

"That's the miracle of this story: the number of people who offered to help and get involved," said Russ Bowers, a chemistry professor who teaches Minkara.

At age 7, Minkara was diagnosed with macular degeneration and cone-rod dystrophy. Every six years, she loses one-half of her sight. Today, 98 percent of her light reception is gone. She's totally lost sight in her right eye and only has peripheral vision in her left eye.

"I presume I live in a much dimmer world," she said.

The daughter of Lebanese immigrants, Minkara was raised in the Boston area. A devoted Muslim, she decided in the sixth grade to start wearing a hijab head cover. She said some people who are blind are angry about it, but she credits her faith with helping her overcome such feelings.

"It gave me strength to be able to even get here," she said.

Minkara had an interest in science when she was a girl, fueled in part by Stephen Hawkings' audio books. But when she went to Wellesley College, an all-women's college outside Boston, she switched majors several times before choosing chemistry and Middle Eastern studies.

Minkara said the sciences pose a particular challenge for the blind, due to the lack of technology to allow them to process the material.

"There's just no technology. ... It makes me sad to see people warned about going into the sciences because they're blind," she said.

Minkara was believed to be Wellesley's first legally blind graduate in the sciences. She delivered the college's commencement address last June, sharing a story about an

experience in the Denver airport. After she asked a woman to direct her to a drinking fountain, the women bought her a bottle of water.

She presented Wellesley's president with a bottle of water at the commencement speech, using the story to illustrate the need to look out for one another.

"It definitely stuck in my mind. You don't see it that much in today's world," she said.

Her experience at UF again illustrates the lesson. She left behind her family, including a sister who attends Wellesley and also is legally blind, to move to unfamiliar Gainesville. She said her transition was difficult until Mike Weaver, who had just finished a post-doctorate National Institutes of Health fellowship, entered the picture.

Weaver is called Minkara's reader, but the job entails much more than that. He goes over notes, coordinates exams and serves as a mentor. He said taking the position gave him the opportunity to stay involved in chemistry while taking time to find a permanent job.

He essentially acts as her eyes in class, describing graphs and other visual elements of her lessons.

"I help her get as much out of the classes as she can," he said.

Minkara also uses a machine in classes that serves as an electronic magnifier, giving her some visual information about the lesson. But the core of Minkara's work is assisted by people — not technology — who make digital recordings of her texts that she can access online.

"I'm very grateful (but) sometimes I feel a little ashamed that that many people need to be involved to help me function," she said.

This semester marks just the beginning of a long journey. It can take five years or more to earn a doctorate. Kenneth Merz Jr., a chemistry professor and supervisor of Minkara's research, said she's off to a good start.

"I think she's incredibly capable," he said. "In terms of work ethic, she's off the charts."

While her studies keep Minkara busy, she's also learning Cuong Nhu martial arts. She's focused on earning her doctorate, hoping to one day have a laboratory and conduct research.

She would also like to get involved in helping other blind students.

"I never would have been able to get here without so many individuals helping me along the way. I want to give back," she said.

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