

NEWS

Three biologists slain on campus

Professor's arrest sends shock waves around the University of Alabama in Huntsville.

The close-knit biology community in Huntsville, Alabama, is reeling after a professor allegedly turned a 9-millimetre pistol on her colleagues in a 12 February faculty meeting at a University of Alabama campus. Three professors were killed and three other people wounded.

Amy Bishop, a neuroscientist who earned her PhD at Harvard University in Cambridge, Massachusetts, was denied tenure by the University of Alabama in Huntsville (UAH) last spring. She allegedly opened fire in a meeting of a dozen people in a small conference room. The three people killed were Gopi Podila, the biology department's chairman; Maria Ragland Davis, an expert in plant pathology; and Adriel Johnson, a cell biologist.

Luis Cruz-Vera, a molecular biologist, was wounded but discharged from hospital a day later. Microbiologist Joseph Leahy remained in critical condition from the shooting as *Nature* went to press, and Stephanie Monticciolo, a staff assistant and the departmental linchpin, was in a serious condition. Bishop is in police custody, charged with murder.

The shootings stunned the Huntsville campus, where many of the 7,400 students read science or engineering. The tragedy effectively halved the biology department's full-time faculty. "When you look at the fact that there are 13 professors and half have passed away or are in the hospital or in jail, and the other half witnessed the shootings, I just don't know how we pick up the pieces," says a departmental graduate student, who asked not to be identified. University president David Williams called the shootings "a terrible tragedy".

The shock waves extended beyond the campus in a city where biotechnology has thrived in the past decade, and where the links between university and off-campus research are unusually tight. "They are our colleagues, our friends. And this is devastating," says Richard Myers, president and director of the HudsonAlpha Institute for Biotechnology, a non-profit academic centre that opened its doors in 2007 some 5 kilometres from the UAH. Myers, a former chair of genetics at the Stanford University School of Medicine in Palo Alto, California, is also an adjunct professor at the UAH.

The university's biology department was built in recent years by Podila, whom colleagues and students described as an affable



Students paid tribute to the professors who died.

man with an easy-going nature coupled with a deep devotion to his department and to the broader biology community in Huntsville. Podila was a pivotal member of the Partnership for Biomedical Research, a group that works to support and draw research to the area.

Colleagues remembered

Chris Gunter, director of research affairs at the HudsonAlpha Institute, an adjunct biology professor at the UAH and a former senior editor at *Nature*, recalls Podila presenting a seminar at the institute last June on his speciality: symbiosis between fungi and tree roots. "He gave a great analogy about the fungi and roots seeking each other out and how this was like dating," she says. "You could tell he was very gifted at teaching undergraduates."

All three professors "cared about students, and they cared about producing good researchers and good scientists", another graduate student in the department says.

Gunter attended a 5 February biology faculty meeting with Bishop, Podila, Davis, Johnson and others to talk about the interdisciplinary graduate programme that also involves the chemistry and chemical engineering

departments. "They were trying to invest in the students and make this programme work," she says. Davis in particular was trying to figure out ways to answer complaints about the programme's qualifying exam.

Davis "was always very passionate about her research and very enthusiastic for students to be involved", adds the second graduate student.

Johnson was remembered as a teacher who was excellent because he was exacting. One student recalls him counselling people to be ready for bumps in the academic road: "I'll give you a Kim Wipe to wipe your tears and then we're going to move forward," he would say. Johnson also required students in a once-weekly lab to come in for extra nights each week, encouraging them to design their own experiments and "get their money's worth".

Bishop had garnered local attention after she and her husband, computer engineer and biologist James Anderson, co-invented a device that is essentially a sealed Petri dish. Bishop had grown frustrated with repeated contamination of the plates on which she was growing nerve cells. The device drew US\$1.25 million from local angel investors, and is expected to make it to the market this summer. A local company, Prodigy Biosystems, was founded to commercialize the invention.

Prodigy Biosystems chairman Dick Reeves calls Bishop "extremely smart" and outspoken: "You never had any doubts about where Amy was on an issue." He says that Bishop often got involved in issues beyond her laboratory, such as helping the family of a Huntsville entrepreneur whose son has amyotrophic lateral sclerosis understand the disease.

Reeves says that Bishop was "frustrated" by her failure to receive tenure and that she felt the university's decision was unfair. Anderson told media outlets over the weekend that he had no hint the shootings were going to occur.

In 1986, Bishop shot and killed her teenage brother in Braintree, Massachusetts. The death was deemed accidental. *The Boston Globe* newspaper has also reported that Bishop and Anderson were questioned in the 1993 investigation of a mailed pipe-bomb received by Paul Rosenberg of Boston Children's Hospital, where Bishop worked in the human-biochemistry lab. No one was ever charged.

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