Scientists looking into effects of Sept. 11

Published in the Home News Tribune 9/11/02

By RAVEN HILL
STAFF WRITER

In the flurry of activity at Ground Zero one week after the Sept. 11 terrorist attacks, researcher Paul Lioy realized the site was simultaneously a crime scene, a military operation, the location of a massive fire followed by a building collapse and a health hazard.

"I was affected profoundly," said Lioy, associate director of the Piscataway-based Environmental and Occupational Health Sciences Institute, a joint program of Rutgers University and UMDNJ-Robert Wood Johnson Medical School. "It made my desire to be of some national service stronger because of the heinous nature of the event."

In June, Lioy and other scientists at the EOHSI received $700,000 in federal grants to continue research on the human health-effects of the terrorist attacks on the World Trade Center complex.

Lioy and Panos Georgopoulos received $150,000 to construct models of the dust and smoke plumes that formed on 9-11 and estimate exposure levels. Michael A. Gallo received $563,000 to study the potential impact of Sept. 11 on pregnant women and their babies and the long-term psychological effects.

"The kinds of situations we have to address has expanded significantly," Georgopoulos said. "A lot of the projects that we had already been working on before Sept. 11 now had to partially refocus on issues related to homeland defense and appropriate emergency response."

Georgopoulos said the researchers are trying to synthesize data collected by various agencies.

"My career direction didn't change, but obviously my focus of attention changed. It was directed very clearly toward the environmental and occupational health issues that were associated with the aftermath," said Lioy.

Since the attack, Lioy has been involved with assessing problems and designing effective clean-up strategies for nearby houses and office buildings.

"The collapse was so immense and powerful that everything was pulverized to tiny particles," Lioy said. "The major issue was the vast quantity of materials people inhaled that was derived from cement and glass fibers, both of which can irritate the lungs. There was a whole host of combustion products that created an unhealthy aerosol for..."
people to breathe."

There have been important lessons learned, he said.

"We have to develop standards that deal with acute-exposure issues rather than long-term issues," said Lioy. "We don't have the right kinds of standards for very short-term events. This is a major addition in terms of research and policy that will continue for years."

The nature of the research is not substantially different, Lioy said, but it underscores the need to keep one's skill levels sharp.

"You never know in a world that's shrinking like ours when an event will occur that will challenge our ability to deal with an environmental health problem on the magnitude of this event," he said. "Hopefully we'll never have to use our skills in this way again."

Raven Hill: (732) 565-7321; e-mail rhill@thnt.com

Subscribe to the Home News Tribune.