Sniffing the Air for Mold

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Although it resembles nothing so much as a UFO, the metal contraption atop the Deming Pavilion on Tulane's downtown campus is actually part of serious science. Tulane University epidemiologist Felicia Rabito and her team are using a spore trap to collect air samples in New Orleans to find out if there is a relationship between environmental exposure and mold allergies in city residents.



Felicia Rabito, left, of the Tulane School of Public Health and Tropical Medicine, confers with colleague Estelle Levetin, right, of the University of Tulsa about a trap that collects spores on a rooftop at the Tulane campus in downtown New Orleans. (Photos by Frank Aymami)

The Burkard trap is one of four in the area provided by Rabito's collaborators in allergy and immunology at Ochsner Medical Foundation, which will be collecting air samples during this year and 2009.

Rabito and colleagues also have access to slides of air samples collected between 2005 and 2007.

"To account for seasonal variation in pollen and spore counts, the outdoor levels will be continuously monitored for one week in December, April, July and October," says Rabito, a clinical associate professor of epidemiology at the Tulane School of Public Health and Tropical Medicine.

The samples will be sent to the Aerobiology Lab at the University of Tulsa, a certified pollen and mold counting station of the National Allergy Bureau. The RAND Gulf States Policy Institute is funding the study.



View of New Orleans from atop the Deming Pavilion.

Air analysis is one half of the effort, Rabito says. For the other half, the team is surveying between 1,200 and 1,500 people who have gone to allergy clinics at Ochsner for post-Katrina allergies.

The team is particularly interested in people who were diagnosed with mold allergies and who have been living in or renovating flooded structures.

"We have developed a home, occupational and ambient exposure profile for allergy patients between December 2005 and January 2009," explains Rabito.

"The research question is whether we are seeing an increase in mold sensitization in those exposed to a greater amount of mold." The science taking place on the downtown rooftop should pass without notice, says Rabito, other than the occasional researcher venturing up to change the filters.