

UB Scientists Put "Allergy-Friendly" Hotel Rooms to the Test

BUFFALO, N.Y. – In partnership with industry, University at Buffalo researchers are conducting one of the first scientific air-quality tests of "allergy-friendly" hotel rooms.

Using new "allergy-friendly" guest rooms in the Buffalo Niagara Marriott in Amherst as their laboratory, the Industry-University Center for Biosurfaces at UB (IUCB) is testing how novel cleaning processes and air-purification devices developed by five Western New York companies affect indoor air quality.

"These companies are anxious to demonstrate and confirm the scientific basis for their techniques and so are we, so that they can take their products to the next step commercially," said Robert Baier, Ph.D., executive director of the IUCB and UB professor of oral diagnostic sciences in the School of Dental Medicine.

The companies and products involved in the testing are:

-- Anabec Systems (Clarence), which provides formulations for deep-cleaning carpet treatment and anti-microbial shields for the cleaned surfaces

-- VIGILAIR Systems (North Tonawanda), which installs germicidal ultraviolet lights in air-conditioning units to keep cooling coils free of fungi

From May 31 to June 2, the UB researchers measured more than 25 components of air quality inside each of four "allergy-friendly" rooms in the Buffalo Niagara Marriott, including large and small particles, volatile organic compounds, (chemical off-gassing), radon, ozone, carbon monoxide and viable and non-viable fungi. Continuous air monitoring on a minute-to-minute basis was conducted during the entire test period.

Analytical techniques used on the samples retrieved from the rooms include infrared spectroscopy, which provides a chemical fingerprint, respirable particle counts, ozone measurements and scanning electron microscope pictures that can characterize samples particle by particle.

In early analyses conducted in the treated rooms, breathable particle counts dropped by about 75%, from 2.5 million per cubic foot in one case to about 600,000, he said.

"Although the project is only in its early stages, preliminary results show that such dramatic reductions in suspended small particle concentrations can be attained and maintained in rooms outfitted with some of these devices and treatments," said Baier.

This is an excerpt from an article. [For the complete story, click here.](#)