

## **Personal Exposure Monitors Show Pharmacy Workers Inhale Drugs When Using Air Pressure-Activated Dispensing Machines**

— **Scientist Calls for Federal Review of Exposure Issue** —

For Immediate Release

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Drexel, MO – AlburtyLab released a report on its comprehensive evaluation of health risks for workers in pharmacies using air pressure-activated drug dispensing machines. The study tested pharmacy workers wearing personal exposure monitors (PEMs) while using the two leading types of air pressure-activated dispensing technologies – the McKesson/Parata Max and the McKesson/Parata RDS. This is the third major study conducted by AlburtyLab examining the issues relating to pharmacy worker exposure.

The study found that workers were exposed to particles in the size range subject to the most health concerns – 2.5 microns or smaller (characterized by EPA as PM-2.5), and that the particles contained active pharmaceutical agents. It finds that a wide range of pharmaceuticals are inhaled and reports the concentrations observed, again raising serious health concerns.

“What’s most concerning is that these particle sizes are known to penetrate the lungs deeply and rapidly enter the bloodstream,” said David Alburty, President of AlburtyLab and lead researcher. “We don’t know what the effects will be of inhaling the pharmaceuticals every workday over years of employment.”

In accordance with best research practices, the AlburtyLab study utilized PEMs, which are small, self-contained sampling systems worn in the breathing zone of staff while working. The PEMs collected samples of airborne particles for analysis.

According to Alburty, “This is the third study we have done on this subject. The first two studies focused on air sampling and showed that airborne drug particles were being generated by these machines in significant concentrations. This latest study focused on what is actually being inhaled by a worker in the course of a day on the job. As an aerosol scientist-researcher, I became concerned about exposure for pharmacy workers to the pill dust that is very visible around these machines. Air pressure-activated dispensing causes a great deal of agitation to the pills, and pills are not engineered to absorb the impact. The studies prove that agitation of the pills by pressurized air causes pharmaceutical compounds to be released into the air, creating PM-2.5 pill dust which is then inhaled by pharmacy workers.”

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The AlburtyLab studies are the first to unveil risks to workers and customers in pharmacies arising from pill dust. Previous extensive air quality studies have been performed with respect to personnel safety in coal mines, cotton mills, etc., and those studies have been useful in the development of workplace standards.

Alburty recommends that further studies be conducted by federal regulatory agencies to assess human health risks, set guidelines for these types of machines, and establish procedures to monitor the health impact on pharmacy workers.

The report also suggests that a federal review determine if it is necessary to conduct a human health risk assessment in pharmacies using PEMs on pharmacy workers (as were employed during this phase of testing) and conducting ongoing health and/or blood and urinalysis monitoring of exposed workers.

<http://www.alburtylab.com>

### **About AlburtyLab, Inc.**

*AlburtyLab is an independent laboratory located in Drexel, Missouri that serves the aerosol research, development, and instrumentation communities. AlburtyLab has conducted independent studies for a range of agencies and companies, including Boeing/US Navy, Boston Scientific, Northrop Grumman, US Postal Service, US Department of Homeland Security, and the US Army Research Laboratory.*

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*The Executive Summary and the final report can be found at [www.alburtylab.com](http://www.alburtylab.com)*