Airborne particles beyond traffic fumes may affect asthma risk

September 15 2014

Researchers in Sydney and Newcastle, Australia have found that elements of dust, particularly those coarse particles that contain iron traces, stimulate the production of inflammatory molecules in cells from the airways of mice and healthy human volunteers.

Surprisingly, traffic fume pollutants did not cause these changes.

The findings are featured in a new *Respirology* study.

"These effects are likely to contribute to the development of asthma in childhood, as well as to worsening of asthma when pollution levels are high." said Dr. Rakesh Kumar, lead author of the study.

"Our findings emphasize that larger airborne particles derived from dust may have important adverse effects on human health."

More information: Kumar, R. K., Shadie, A. M., Bucknall, M. P., Rutlidge, H., Garthwaite, L., Herbert, C., Halliburton, B., Parsons, K. S. and Wark, P. A.B. (2014), Differential injurious effects of ambient and traffic-derived particulate matter on airway epithelial cells. Respirology. DOI: 10.1111/resp.12381

Provided by Wiley