



# Research Directions

Office of Research Services

## ***Safe and Sound***

**Dr Sue Reed from the School of Natural Sciences is collaborating with Mr Kevin Hedges from the Queensland Government Department of Mines and Energy and Dr David Grantham from Workplace Health and Safety Queensland to explore exposure to airborne chemicals and noise in workplaces through funding from the Australian Government Department of Employment and Workplace Relations.**



'Exposure to hazardous chemicals in the workplace in the form of gases, vapours and particles and noise can cause serious short-term and long-term injuries to workers and significant financial and operational consequences for employers', says Dr Reed. 'Australia has standards in place covering safe usage and exposure levels to many hazardous materials, however, with some airborne chemicals it is difficult to measure daily workplace exposure and there is currently no single repository to hold any data which has been collected. This project will attempt to gauge exposure levels to airborne chemicals and noise in specific small, medium and large enterprises and design a data collection matrix and database that can be accessed by a range of health and safety and occupational hygiene professionals and employers.'

Working closely with employees and experienced occupational hygienists in selected printing, smash repair, mining, and construction and painting industry workplaces, the research team will ask employees to wear personal air sampling devices and noise dosimeters as they go about their regular work. Samples will then be analysed to determine levels of exposure of the individuals to specific pollutants being measured. Collection from the personal devices should reflect the levels of chemicals and noise that each participant is actually being exposed to during a regular work day, and will form the basis for the development and further testing of specific industry benchmark exposure levels.

This project will provide a consolidated database of information and standardised tools for assessing workplace safety with regard to presence and levels of exposure to dangerous airborne chemical and noise. In the long-term, it could lead to safer workplaces for employees, and allow employers, employees, workplace safety inspectors and policy makers to deal with potential hazardous chemical risks and noise appropriately.

**Project Title:** Benchmarking of airborne exposures in selected Australian workplaces

**Funding has been set at:** \$42,900

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