

# Airway Cells and Air Pollution (ACAP) study in Schools

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The Airway Cells and Air Pollution (ACAP) study investigated the impact of air pollution on immune cells within children's lungs by combining research with school workshops.

The project set up mobile laboratories within primary and secondary schools over the course of two years where students aged between 8 – 14 years could provide samples, then take part in science activities and demonstrations.

This is the first time that a clinical research study has carried out its sampling within a school environment. It gives students a chance to understand the research process through real-life learning.

## Key results so far

- 38 recruitment sessions held at schools, organized by Centre of the Cell, reaching 900 children in total
- 433 students provided immune cells by offering sputum, saliva (DNA) and urine samples
- 60 sets of personal carbon exposure data over 24 hours, on journeys to and from school, were collected by students
- Established good relationships with participating schools; allowing for repeat visits to gather functional data in the coming year.

“ Combining the clinical study with educational workshops has allowed access to far higher numbers of participants than would have been possible using traditional recruitment policies. ”

## Future Steps

A further workshop will update students on progress of their samples through the Blizzard Institute laboratories. This will also be used to evaluate the impact of the project and ensure continuity of relationships between the research group and the public and schools.

This project can now be used as a model for future similar research ensuring a new generation are fully involved in research..