

MEDIA RELEASE

Wednesday 16 September

Giant rats sniff out contaminated soil

African giant pouched rats could be a new way to detect petroleum-contaminated soil, potentially offering a faster and cheaper way to assess large or remote contaminated sites.

Professor Paul Nathanail, a contaminated-land specialist from Land Quality Management in England, is presenting the research carried out by not-for-profit APOPO, at the CleanUp 2026 conference in Adelaide this week.

APOPO have successfully trained and deployed rats to detect landmines and tuberculosis in the past.

The APOPO team and Professor Nathanail are now investigating whether the rats can detect petroleum hydrocarbons at the low concentrations needed to make decisions about contaminated land risks and remediation.

"The initial results are really exciting," Professor Nathanail said. "What we're doing now is looking at whether we can train the rats to work at investigation levels that are relevant to contaminated sites."

APOPO trains African giant pouched rats in Tanzania, with the animals needing only a few months to learn scent-detection tasks. Professor Nathanail said their incredibly sensitive sense of smell and trainability made them promising candidates.

If successful, the rats could help detect petroleum across large or remote contaminated sites where access to accredited laboratories is limited. In some instances, the rats could even assess remote areas more accurately than in a lab, because it is difficult to maintain the integrity of petroleum-contaminated samples when transporting them over long distances.

The rats could also potentially pinpoint leaks of volatile substances inside industrial facilities, enabling more targeted repairs and shorter shutdowns.

Professor Nathanail said it was critical to note that the rats' safety and wellbeing were never compromised throughout this work. "The rats are very well looked after," he said.

Researchers are now designing the next stage of the work, including determining which hydrocarbons to target and how low a concentration of the contaminants the rats can reliably detect. The researchers are also seeking a large remediation project site where they can test the rats alongside conventional analysis methods.

Professor Nathanail said he was excited to share this research on behalf of the APOPO team and that he hoped people would see "just how important it is to have innovative thinking outside the box."

CleanUp 2026 – the 11th International Contaminated Site Remediation Conference incorporating the 5th International PFAS Conference – is in Adelaide from 14 to 17 September. crcCARE is a partnership of organisations dedicated to developing new ways of deal with and prevent contamination of soil, water and air.

The conference program is available [here](#).

Media enquires

Alysha Huxley, Scientell, 0459 223 089, alysha@scientell.com.au
Simon Torok, Scientell, 0409 844 302, simon@scientell.com.au

Presentation: Sniffer rats for rapid screening of contaminated soil, 9:15am, Wednesday 16 September (City Room 3, Adelaide Convention Centre)

Media: Complimentary, free media passes are available for any accredited media personnel who wish to attend the conference in person.