

Fingerprint drug screen test works on the living and deceased

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A revolutionary drug test developed from research carried out at the University of East Anglia can detect four classes of drugs in traces of sweat found in a fingerprint. And the technology works on both the

living and deceased.

New research published in the *Journal of Analytical Toxicology* shows how the Intelligent Fingerprinting Drug Screening System enables the detection of amphetamines, cannabis, cocaine and opiates from a single fingerprint [sample](#) in just ten minutes.

The technology also works when used by UK coroners to detect drugs in the sweat of fingerprint samples gathered from deceased individuals.

Founded in 2007, Intelligent Fingerprinting is a spin-out company from UEA. The Drug Screening System works by analysing the sweat from a fingerprint sample.

Unlike conventional screening methods which require the collection of saliva or urine samples, the technique is non-invasive, dignified and non-biohazardous.

Its use in coroner mortuaries demonstrates the value of the system, which is also being used in drug rehabilitation centres and workplaces. Studies are also underway for its use in airport screening and for offender management applications within prisons and probation services.

Emeritus Prof David Russell, from UEA's School of Chemistry, was a co-author of the research and is Intelligent Fingerprinting's Founder and Chief Scientific Officer.

He said: "This new research highlights how our lateral flow [drug screening](#) cartridge can screen rapidly for drug use in individuals using a fingerprint sample with a sample collection time of only five seconds, and a total analysis time of ten minutes.

"Our study also showed how our technology is being used by coroners to

assist in gaining early understanding of the possible cause of death, and to inform potential further post-mortem activities or quickly facilitate police investigations.

"We matched the coroners' drug test results obtained using our fingerprint drug screen with a second sample tested in laboratory conditions, achieving excellent correlation in terms of accuracy," he added.

"We also compared our results with toxicological analysis of blood and urine samples, with a good correlation of results."

"This important research demonstrates how there is sufficient sweat present in a subject's fingerprint, regardless of whether the person is alive or dead, to enable our fingertip-based drug screening system to detect the presence of four major drugs of abuse at the same time," added Intelligent Fingerprinting's Dr. Paul Yates.

"The results from our coroner service trials also clearly demonstrate how our non-invasive fingerprint screen is simple to use, hygienic and offers an ideal complementary screening approach for the growing number of sectors that require a rapid and flexible drug test."

"Drug screening using the sweat of a fingerprint: lateral flow detection of Δ^9 -tetrahydrocannabinol, cocaine, opiates and amphetamine' is published in the *Journal of Analytical Toxicology*.

More information: Mark Hudson et al. Drug screening using the sweat of a fingerprint: lateral flow detection of Δ^9 -tetrahydrocannabinol, cocaine, opiates and amphetamine, *Journal of Analytical Toxicology* (2018). [DOI: 10.1093/jat/bky068](https://doi.org/10.1093/jat/bky068)

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