

Beating the poppy seed defense: New test can distinguish heroin use from seed ingestion

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Heroin is one of the most widely used illegal drugs in the world, but drug testing has long been challenged by the difficulty in separating results of illicit heroin users from those who have innocently eaten poppy seeds containing a natural opiate. Research in *Drug Testing and Analysis* explores a new test which may present a solution to this so-called 'poppy seed defense.'

The team sought to identify an acetylated derivative which is known to be present in street heroin, but would not be found in either poppy seeds or medicines containing opiates. The authors identified a unique glucuronide metabolite (designated 'ATM4G') which could be used as a marker of street heroin use. A high frequency for the presence of ATM4G in urine strongly suggests that detection of this metabolite may offer an important advance in workplace [drug testing](#) and forensic toxicology, providing a potential solution to the poppy seed defense.

'This research report addresses a longstanding analytical problem in forensic toxicology and workplace drug testing, by identifying a urinary marker that differentiates street heroin users from those whom have ingested morphine present in poppy seeds,' said Dr Andrew Kicman, from the Department of Forensic and Analytical Science at King's College, London.

More information: P. Chen, R. A. Braithwaite, C. George, P. J. Hylands, M. C. Parkin, N. W. Smith and A. T. Kicman, 'The poppy seed defense: a novel solution', *Drug Testing and Analysis*, [DOI](#):

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