Simplifying the Screening Workflow for Forensic Toxicology

With the increased use of novel psychoactive substances, the identification of compounds in a forensic toxicology investigation can be a complex and time-consuming process. Waters® **UNIFI® Scientific Information System** (UNIFI) provides simple workflows for targeted screening and unknown compound structural elucidation that will enable you to keep up with an ever changing illicit drug scene.

www.waters.com/FTUNIFI

1. ALL THE DATA ALL THE TIME

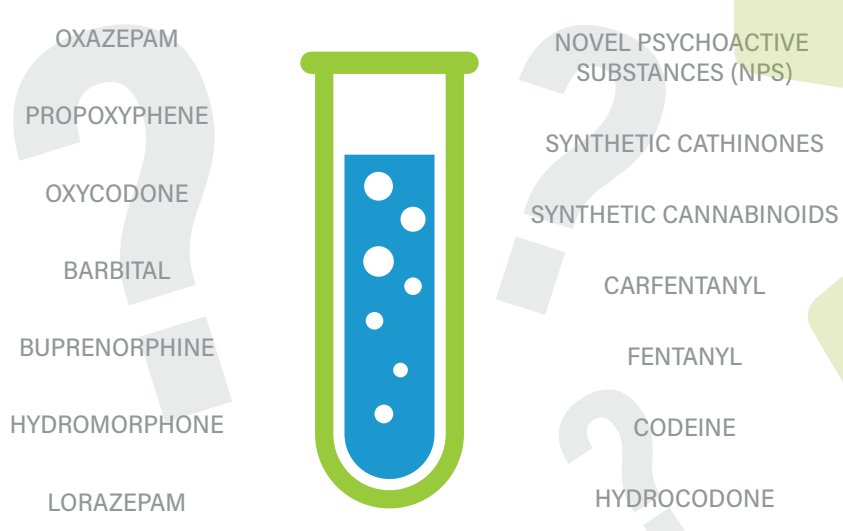
With high resolution mass spectrometry and UNIFI, you have all the data all the time to look for known and unknowns. The raw data is always accessible to interrogate later for new emerging drugs.

2. TARGETED SCREENING

UNIFI uses a well characterized library of over 1300 compounds. Retention time, precursor, and fragment ion accurate mass data is used to identify compounds. Identified compounds can also be quantified without having to re-process the raw data or change software platform. New compounds can easily be added to the library.

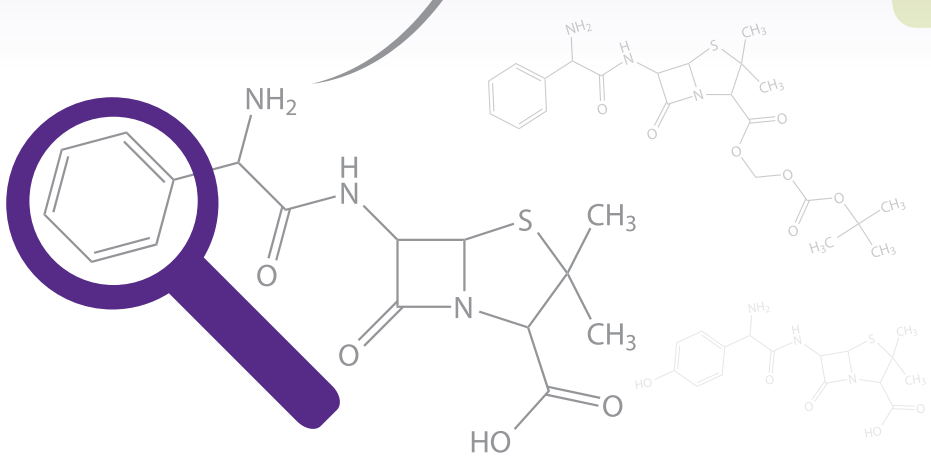
3. NON-TARGETED SCREENING/ WHAT ELSE IS IN THE SAMPLE?

UNIFI can automatically look for characteristic fragments and use theoretical or *"in-silico* fragmentation" information to detect and identify new emerging psychoactive substances such as cathinones, synthetic cannabinoids and fentanyl derivatives.



4. IDENTIFYING UNKNOWN COMPOUNDS

UNIFI automatically derives the elemental composition of unknown compounds and searches against on-line libraries. Predicted fragment ions from these libraries are automatically compared to detected ions to further aid the identification of unknown compounds.



5. REPORT

A customized report can be generated that includes analysis methods, processing parameters, chromatograms, spectra, and identified compound summary tables.