#### Accepted Manuscript

Title: Current status of non-targeted liquid chromatography-tandem mass spectrometry in forensic toxicology

Author: Herbert Oberacher, Kathrin Arnhard

 PII:
 S0165-9936(15)30132-1

 DOI:
 http://dx.doi.org/doi: 10.1016/j.trac.2015.12.019

 Reference:
 TRAC 14668

To appear in: Trends in Analytical Chemistry



Please cite this article as: Herbert Oberacher, Kathrin Arnhard, Current status of non-targeted liquid chromatography-tandem mass spectrometry in forensic toxicology, *Trends in Analytical Chemistry* (2016), http://dx.doi.org/doi: 10.1016/j.trac.2015.12.019.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## ACCEPTED MANUSCRIPT

### Current status of non-targeted liquid chromatography-

### tandem mass spectrometry in forensic toxicology

Herbert Oberacher\* and Kathrin Arnhard

Institute of Legal Medicine and Core Facility Metabolomics, Medical University of Innsbruck, Innsbruck, Austria.

<sup>\*</sup>Corresponding author: Assoc.Prof. Dr. Herbert Oberacher, Institute of Legal Medicine and Core Facility Metabolomics, Medical University of Innsbruck, Muellerstrasse 44, 6020 Innsbruck, Austria. Tel.: +43 512 9003 70639, fax: +43 512 9003 73600, e-mail: herbert.oberacher@i-med.ac.at

#### Highlights

- Non-targeted LC/MS/MS in forensic toxicological analysis
- Principles of non-targeted data acquisition strategies
- Principles of compound identification
- Performance of tandem mass spectral libraries
- Summary of available guidelines

A core task of any forensic toxicology lab is providing comprehensive information on the chemical composition of evidence. This mission can only be accomplished by combining efficient detection techniques with reliable identification procedures. A competent approach for the sensitive detection of a large variety of potentially toxic compounds is liquid chromatography/tandem mass spectrometry (LC/MS/MS). The

Download English Version:

# https://daneshyari.com/en/article/5141757

Download Persian Version:

https://daneshyari.com/article/5141757

Daneshyari.com