

MARTA CONCHEIRO-GUISAN

Assistant Professor in Toxicology
Department of Sciences
John Jay College of Criminal Justice
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EDUCATION

- 2002-2006 Ph.D. in Forensic Toxicology, Department of Anatomical Pathology and Forensic Sciences, University of Santiago de Compostela, Spain
Dissertation: "Liquid chromatography tandem mass spectrometry for the determination of amphetamine derivatives and other illicit drugs in biological matrices"
Honors: Outstanding Doctoral Award offered by the University of Santiago de Compostela; Eloy Diez Prize offered by the College of Pharmacists in Pontevedra
- 1997-2002 M.Sc. in Pharmacy (*Licenciatura de Farmacia*), University of Santiago de Compostela, Spain
Honors: Outstanding M.Sc. in Pharmacy Award offered by the University of Santiago de Compostela; Outstanding M.Sc. Award offered by the Regional Government of Galicia; National Award for the best Students of M.Sc. in Pharmacy

FELLOWSHIPS

- January 2009-December 2009 Postdoctoral INVEST Fellowship, National Institute on Drug Abuse International Program
- January 2008-December 2008 Postdoctoral Fellowship, *Fundación Española de Ciencia y Tecnología*.
- January 2003-December 2006 Graduate Student Fellowship, *Ministerio de Ciencia y Educación de España*
- October 2002-December 2002 Graduate Student Fellowship, *Consellería de Educación e Ordenación Universitaria da Xunta de Galicia*
- October 2001-June 2002 Research Assistantship, *Consellería de Educación e Ordenación Universitaria da Xunta de Galicia*

PROFESSIONAL EXPERIENCE

January 2015-Present	Assistant Professor in Toxicology Department of Sciences, John Jay College of Criminal Justice, City University of New York
March 2012-December 2014	Research Scientist Chemistry and Drug Metabolism Section, National Institute on Drug Abuse, National Institutes of Health
January 2010-March 2012	Researcher and Lecturer (<i>Investigador del Programa Isidro Parga Pondal</i>) Department of Anatomical Pathology and Forensic Sciences, University of Santiago de Compostela, Spain
January 2008-December 2009	Postdoctoral Fellow Chemistry and Drug Metabolism Section, National Institute on Drug Abuse, National Institutes of Health
January 2007-December 2007	Staff Scientist Cientisol S.L., Santiago de Compostela, Spain
April 2007-December 2007	Postdoctoral Fellow Department of Anatomical Pathology and Forensic Sciences, University of Santiago de Compostela, Spain

AWARDS

2018	Achievement Award from The International Association of Forensic Toxicologists (TIAFT) for her outstanding achievements in forensic toxicology.
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GRANTS

Cycle 49 PSC-CUNY Research Award	<i>Effective date:</i> July 1 st 2018 –July 1 st 2019 <i>Name of PI:</i> Marta Concheiro-Guisan <i>Project title:</i> "Determination of Pharmaceuticals in Biofilm Samples from the Hudson River". <i>Funding Agency:</i> The City University of New York. <i>Total costs:</i> \$3,500
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FY2016 Department of Defense Research and Education Program of Historically Black Colleges and Universities and Minority-Serving Institution Equipment/Instrumentation Program

Effective date: June 1st 2016 – June 1st 2017
Name of PI: Marta Concheiro-Guisan
Project title: “Liquid Chromatography Tandem Mass Spectrometry in Toxicology and Environmental Sciences Research and Education Programs”.
Funding Agency: Department of Defense.
Total costs: \$231,182.01

Cycle 47 PSC-CUNY Research Award

Effective date: July 1st 2016 – July 1st 2017
Name of PI: Marta Concheiro-Guisan
Project title: “Wastewater-based epidemiology of tobacco and illicit drugs in New York City”.
Funding Agency: The City University of New York.
Total costs: \$3,484

Center for Drug Use and HIV/HCV Research (CDUHR) Pilot Project Award

Effective date: February 5th 2016 – February 7th 2017
Name of PI: Marta Concheiro-Guisan
Project title: “K2 Impact in Antiretroviral Therapy Discontinuation”.
Funding Agency: Center for Drug Use and HIV/HCV Research (CDUHR) P30DA011041.
Total costs: \$5,000

Shimadzu Equipment Grants for Research 2014-2015

Effective date: August 3rd 2015 – August 3rd 2016
Name of PI: Marta Concheiro-Guisan
Project title: Equipment Grants for Research. Mass Spectrometry Program.
Funding Agency: Shimadzu Corporation
Total costs: \$190,000

Seed Money Program

Effective date: May 14th 2015 – May 14th 2016
Name of PI: Marta Concheiro-Guisan and Shu-Yuan Cheng
Project title: “Analysis of marijuana, prescribed narcotics and their metabolites in wastewater in New York City areas by LC-MS/MS”.
Funding Agency: Office for the Advancement of Research (OAR), John Jay College of Criminal Justice, CUNY.
Total costs: \$2,000

CLINICAL TRIALS

Intramural Research Program (IRP) NIDA

Protocol Number: 13-DA-N482

ClinicalTrials.gov Identifier: NCT01851473

Effective date: 05/09/2013-01/03/2015

Clinical trial title: "Pharmacodynamic and pharmacokinetic interactions between intravenous cocaine and acetazolamide or quinine"

Role: Associate Investigator

Intramural Research Program (IRP) NIDA

Protocol Number: 12-DA-N481

ClinicalTrials.gov Identifier: NCT01736332

Effective date: 11/27/2012-10/24/2014

Clinical trial title: "Evidence-based drug policy and legislation: amphetamines and opiates in blood, oral fluid and urine following intranasal l-methamphetamine and oral poppy seeds"

Role: Associate Investigator

PEER-REVIEWED PUBLICATIONS

1. **Concheiro M.**, Chesser R., Pardi J., Cooper G. "Postmortem Toxicology of New Synthetic Opioids." *Frontiers in Pharmacology*, 2018;9:1210.
2. Hanna J., Lendoiro E., de Castro A., González-Colmenero E., Concheiro-Guisan A., Peñas-Silva P., Macias-Cortiña M., Cruz-Landeira A., López-Rivadulla M., **Concheiro-Guisan M.** "Detection of in utero ethanol exposure via ethyl glucuronide and ethyl sulfate analysis in umbilical cord and placenta." *Forensic Toxicology*, 2018, <https://doi.org/10.1007/s11419-018-0439-4>.
3. **Concheiro M.**, Huestis M.A. "Drug exposure during pregnancy: analytical methods and toxicological findings." *Bioanalysis*, 2018, 10(8):587-606.
4. Paniagua-González L., Jiménez-Morigosa C., Lendoiro E., **Concheiro M.**, Cruz A., López-Rivadulla M., de Castro A. "Development and validation of an LC-SM/MS method for the determination of nicotine and its metabolites in placenta and umbilical cord." *Drug Testing and Analysis*, 2018, doi:10.1002/dta.2381.
5. Blandino V., Wetzel J., Kim J., Haxhi P., Curits R., **Concheiro M.** "Oral fluid vs. urine analysis to monitor synthetic cannabinoids and classic drugs recent exposure". *Current Pharmaceutical Biotechnology*, 2017; 18(10): 796-805.
6. Kim J., de Castro A., Lendoiro E., Cruz-Landeira A., López-Rivadulla M., **Concheiro M.** "Detection of in utero cannabis exposure by umbilical cord analysis." *Drug Testing and Analysis* 2017, doi: 10.1002/dta.2307.
7. **Concheiro M.**, Lendoiro E., de Castro A., González-Colmenero E., Concheiro-Guisan A., Peñas-Silva P., Macias-Cortiña M., Cruz-Landeira A., López-Rivadulla M. "Bioanalysis for cocaine, opiates, methadone and amphetamines exposure detection during pregnancy." *Drug Testing and Analysis*, 2017; 9(6):898-904.
8. Prego-Meleiro P., Lendoiro E., **Concheiro M.**, Cruz A., Lopez-Rivadulla M., de Castro A. "Development and validation of a liquid chromatography tandem mass spectrometry method for the determination of cannabinoids and phase I and II metabolites in meconium". *Journal of Chromatography A*, 2017; 1497:118-126.
9. Jacox A., Wetzel J., Cheng S.Y., **Concheiro M.** "Quantitative analysis of opioids and cannabinoids in wastewater samples", *Forensic Sciences Research*, 2017; 2(1):18-25.

10. Miller B., Kim J., **Concheiro M.** "Stability of synthetic cathinones in oral fluid samples", *Forensic Science International* 2017; 274:13-21.
11. Luchessi A.D., **Concheiro M.**, Germano J.F., Silbiger V.N., Bortolin R.H., Cruz A., Quintela O., Brion M., Carracedo A., Iñiguez A., Bravo M., López-Rivadulla M., Hirata R.D., Sousa A.G., Hirata M.H. "ABCC3 Polymorphisms and mRNA Expression Influence the Concentration of a Carboxylic Acid Metabolite in Patients on Clopidogrel and Aspirin Therapy". *Basic and Clinical Pharmacology and Toxicology*, 2017; 120(5):466-474.
12. Elmore J., Dillon-Carter O., Partilla J., Ellefsen K.N., **Concheiro M.**, Suzuki M., Rice K.C., Huestis M.A., Baumann M.H., "Pharmacokinetic Profiles and Pharmacodynamic Effects for Methylone and its Metabolites in Rats", *Neuropsychopharmacology*, 2017; 42(3):649-660.
13. Ellefsen K.N., **Concheiro M.**, Huestis M.A., "Synthetic cathinone pharmacokinetics, analytical methods, and toxicological findings from human performance and postmortem cases", *Drug Metabolism Reviews*, 2016; 1:1-29.
14. Champeil E., Cheng S.Y., Huang B.T., **Concheiro-Guisan M.**, Martinez T., Paz M.M., Sapse A.M., "Synthesis of Mitomycin C & Decarbamoylmitomycin C N² deoxyguanosine-adducts", *Bioorganic Chemistry*, 2016; 65:90-99.
15. Ellefsen K.N., **Concheiro M.**, Pirard S., Gorelick D.A., Huestis M.A., "Pharmacodynamic effects and relationships to plasma and oral fluid pharmacokinetics after intravenous cocaine administration", *Drug Alcohol Dependence*, 2016, 163:116-25.
16. Ellefsen K.N., **Concheiro M.**, Pirard S., Gorelick D.A., Huestis M.A., "Cocaine and benzoylecgonine oral fluid on-site screening and confirmation", *Drug Testing and Analysis*, 2016; 8(3-4): 296-303.
17. Swortwood M.J., Ellefsen K.N., Wohlfarth A., Diao X., **Concheiro-Guisan M.**, Kronstrand R., Huestis M.A. "First metabolic profile of PV8, a novel synthetic cathinone, in human hepatocytes and urine by high-resolution mass spectrometry", *Analytical and Bioanalytical Chemistry*, 2016; 408(18): 4845-4856.
18. Swortwood M.J., Carlier J., Ellefsen K.N., Wohlfarth A., Diao X., **Concheiro-Guisan M.**, Kronstrand R., Huestis M.A., "In vitro and in silico metabolic profiling of α -pyrrolidinopentiothiophenone, a novel thiophene stimulant", *Bioanalysis*, 2016; 8(1):65-82.
19. Marin S.J., Doyle K., Chang A., **Concheiro-Guisan M.**, Huestis M.A., Johnson-Davis K.L., "One hundred false-positive amphetamines specimens characterized by liquid chromatography time-of-flight mass spectrometry", *Journal of Analytical Toxicology*, 2016; 40(1):37-42.
20. Ellefsen K.N., **Concheiro M.**, Pirard S., Gorelick D.A., Huestis M.A., "Oral fluid cocaine and benzoylecgonine concentrations following controlled intravenous cocaine administration", *Forensic Science International*, 2016; 260:95-101.
21. Ellefsen K.N., Wohlfarth A., Swortwood M.J., Diao X., **Concheiro M.**, Huestis M.A., "4-Methoxy- α -PVP: in silico prediction, metabolic stability, and metabolites identification by human hepatocyte incubation and high-resolution mass spectrometry", *Forensic Toxicology*, 2016; 34:61-75.
22. Anizan S., **Concheiro M.**, Lehner K.R., Bukhari M.O., Suzuki M., Rice K.C., Baumann M.H., Huestis M.A., "Linear pharmacokinetics of 3,4-methylenedioxypyrovalerone (MDPV) and its metabolites in the rat: relationship to pharmacodynamic effects.", *Addiction Biology*, 2016; 21(2):339-347.
23. Ellefsen K.N., da Costa J.L., **Concheiro M.**, Anizan S., Barnes A.J., Pirard S., Gorelick D.A., Huestis M.A., "Cocaine and metabolites concentrations in DBS and venous blood after controlled intravenous cocaine administration", *Bioanalysis*, 2015; 7(16):2041-2056.
24. **Concheiro M.**, Castaneto M., Kronstrand R., Huestis M.A., "Simultaneous determination of 40 novel psychoactive stimulants in urine by liquid chromatography-high resolution mass spectrometry and library matching", *Journal of Chromatography A*, 2015; 1397:32-42.
25. Castaneto M.S., Barnes A.J., **Concheiro M.**, Klette K.L., Martin T.A., M.A. Huestis, "Biochip array technology immunoassay performance and quantitative confirmation of designer piperazines for urine workplace drug testing", *Analytical and Bioanalytical Chemistry*, 2015; 407(6):4639-48.
26. Newmeyer M.N., **Concheiro M.**, da Costa J.L., Flegel R., Gorelick D.A., Huestis M.A., "Oral fluid with three modes of collection and plasma methamphetamine and amphetamine enantiomer concentrations

- after controlled intranasal l-methamphetamine administration”, *Drug Testing and Analysis*, 2015; 7(10):877-83.
27. Newmeyer M.N., **Concheiro M.**, da Costa J.L., Lodico C., Gorelick D.A., Huestis M.A., “Simultaneous plasma and oral fluid morphine and codeine concentrations after controlled administration of poppy seeds with known opiate content”, *Forensic Toxicology*, 2015; 33(2):235-243.
 28. Ellefsen KN, **Concheiro M.**, Suzuki M., Rice K.C., Elmore J.S., Baumann M.H., Huestis M.A., “Quantification of methylone and metabolites in rat and human plasma by liquid chromatography-tandem mass spectrometry”, *Forensic Toxicology*, 2015, 33(2): 202-212.
 29. Kwako L.E., Spagnolo P.A., Schwandt M.L., Thorsell A., George D.T., Momenan R., Rio D.E., Huestis M., Anizan S., **Concheiro M.**, Sinha R., Heilig M., “The Corticotropin Releasing Hormone-1 (CRH1) Receptor Antagonist Pexacerfont in Alcohol Dependence: A Randomized Controlled Experimental Medicine Study.”, *Neuropsychopharmacology*, 2015; 40:1053-63.
 30. **Concheiro M.**, Newmeyer M.N., da Costa J.L., Flegel R., Gorelick D.A., Huestis M.A., “Morphine and codeine in oral fluid after controlled poppy seed administration.”, *Drug Testing and Analysis*, 2015; 7(7):586-91.
 31. Concheiro-Guisan A., **Concheiro M.**, “Bioanalysis during pregnancy: recent advances and novel sampling strategies.”, *Bioanalysis*, 2014; 6(23):3133-53.
 32. Kuwabara H., Heishman S.J., Brasic J.R., Contoreggi C., Cascella N., Mackowick K.M., Taylor R., Rousset O., Willis W., Huestis M.A., **Concheiro M.**, Wand G., Wong D.F., Volkow N.D., “Mu Opioid Receptor Binding Correlates with Nicotine Dependence and Reward in Smokers.”, *PLoS One*, 2014; 9(12):e113694.
 33. Smith M.L., Nichols D.C., Underwood P., Fuller Z., Moser M.A., Flegel R., Gorelick D.A., Newmeyer M.N., **Concheiro M.**, Huestis M.A., “Methamphetamine and amphetamine isomer concentrations in human urine following controlled vicks vapoinhaler administration.”, *Journal of Analytical Toxicology*, 2014; 38(8):524-7.
 34. Ellefsen K.N., **Concheiro M.**, Beck O., Gorelick D.A., Pirard S., Huestis M.A., “Quantification of cocaine and metabolites in exhaled breath by liquid chromatography-high-resolution mass spectrometry following controlled administration of intravenous cocaine.”, *Analytical and Bioanalytical Chemistry*, 2014; 406(25):6213-23.
 35. Newmeyer M.N., **Concheiro M.**, Huestis M.A., “Rapid quantitative chiral amphetamines liquid chromatography-tandem mass spectrometry: method in plasma and oral fluid with a cost-effective chiral derivatizing reagent.”, *Journal of Chromatography A*, 2014; 1358:68-74.
 36. Smith M.L., Nichols D.C., Underwood P., Fuller Z., Moser M.A., LoDico C., Gorelick D.A., Newmeyer M.N., **Concheiro M.**, Huestis M.A., “Morphine and codeine concentrations in human urine following controlled poppy seeds administration of known opiate content.”, *Forensic Science International*, 2014; 241:87-90.
 37. Anizan S., Ellefsen K., **Concheiro M.**, Suzuki M., Rice K.C., Baumann M.H., Huestis M.A., “3,4-Methylenedioxypyrovalerone (MDPV) and metabolites quantification in human and rat plasma by liquid chromatography-high resolution mass spectrometry”, *Analytica Chimica Acta*, 2014; 827:54-36.
 38. Himes S.K., **Concheiro M.**, Scheidweiler K.B., Huestis M.A., “Validation of a novel method to identify in utero ethanol exposure: simultaneous meconium extraction of fatty acid ethyl esters, ethyl glucuronide, and ethyl sulfate followed by LC-MS/MS quantification”, *Analytical and Bioanalytical Chemistry*, 2014; 406(7):1945-55.
 39. Desrosiers N.A., Himes S.K., Scheidweiler K.B., **Concheiro-Guisan M.**, Gorelick D.A., Huestis M.A., “Phase I and II cannabinoid disposition in blood and plasma of occasional and frequent smokers following controlled smoked cannabis”, *Clinical Chemistry*, 2014, 60(4): 631-43.
 40. Desrosiers N.A., Lee D., Scheidweiler K.B., **Concheiro-Guisan M.**, Gorelick D.A., Huestis M.A., “In vitro stability of free and glucuronidated cannabinoids in urine following controlled smoked cannabis.”, *Analytical and Bioanalytical Chemistry*, 2014;406(3):785-92.
 41. Desrosiers N.A., Lee D., **Concheiro-Guisan M.**, Scheidwieler K.B., Gorelick D.A., Huestis M.A., “Urinary Cannabinoid Disposition in Occasional and Frequent Smokers: Is THC-Glucuronide in Sequential Urine Samples a Marker of Recent Use in Frequent Smokers?”, *Clinical Chemistry*, 2014; 60(2):361-72.

42. **Concheiro M.**, Baumann M.H., Scheidweiler K.B., Rothman R.R., Marrone G.F., Huestis M.A., "Nonlinear pharmacokinetics of (\pm)3,4-methylenedioxymethamphetamine (MDMA) and its pharmacodynamic consequences in rat", *Drug Metabolism and Disposition*, 2013; 42(1):119-25.
43. **Concheiro M.**, Anizan S., Ellefsen K., Huestis M.A., "Simultaneous quantification of 28 synthetic cathinones and metabolites in urine by liquid chromatography-high resolution mass spectrometry", *Analytical and Bioanalytical Chemistry*, 2013; 405(29):9437-48.
44. Hahn B., Harvey A.N., **Concheiro-Guisan M.**, Huestis M.A., Holcomb H.H., Gold J.M., "A test of the cognitive self-medication hypothesis of tobacco smoking in schizophrenia", *Biological Psychiatry*, 2013; 74(6):436-43.
45. **Concheiro M.**, González-Colmenero E., Lendoiro E., Concheiro-Guisán A., de Castro A., Cruz-Landeira A., López-Rivadulla M., "Alternative matrices for cocaine, heroin, and methadone in utero drug exposure detection", *Therapeutic Drug Monitoring*, 2013; 35(4):502-509.
46. **Concheiro M.**, Lee D., Lendoiro E., Huestis M.A., "Simultaneous quantification of Δ (9)-tetrahydrocannabinol, 11-nor-9-carboxy-tetrahydrocannabinol, cannabidiol and cannabinol in oral fluid by microflow-liquid chromatography-high resolution mass spectrometry", *Journal of Chromatography A*, 2013; 1297:123-130.
47. Lendoiro E., González-Colmenero E., Concheiro-Guisán A., de Castro A., Cruz A., López-Rivadulla M., **Concheiro M.**, "Maternal hair analysis for the detection of illicit drugs, medicines, and alcohol exposure during pregnancy", *Therapeutic Drug Monitoring*, 2013; 35(3):296-304.
48. de Castro A., Díaz A., Piñeiro B., Lendoiro E., Cruz A., López-Rivadulla M., **Concheiro M.**, "Simultaneous determination of opiates, methadone, amphetamines, cocaine, and metabolites in human placenta and umbilical cord by LC-MS/MS", *Analytical and Bioanalytical Chemistry*, 2013; 405(12):4295-4305.
49. de Castro A., Lendoiro E., Quintela O., **Concheiro M.**, Lopez-Rivadulla M., Cruz A., "Hair analysis interpretation of an unusual case of alleged scopolamine-facilitated sexual assault", *Forensic Toxicology*, 2012; 30:193-198.
50. Lendoiro E., Quintela O., de Castro A., Cruz A., Lopez-Rivadulla M., **Concheiro M.**, "Target screening and confirmation of 35 licit and illicit drugs and metabolites in hair by LC-MSMS", *Forensic Science International*, 2012; 217(1-3):207-215.
51. **Concheiro M.**, Jones H.E., Johnson R.E., Choo R., Huestis M.A., "Preliminary buprenorphine sublingual tablet pharmacokinetic data in plasma, oral fluid, and sweat during treatment of opioid-dependent pregnant women", *Therapeutic Drug Monitoring*, 2011; 33(5):619-26.
52. **Concheiro M.**, Shakleya D.M., Huestis M.A., "Simultaneous analysis of buprenorphine, methadone, cocaine, opiates and nicotine metabolites in sweat by liquid chromatography tandem mass spectrometry", *Analytical and Bioanalytical Chemistry*, 2011; 400(1):69-78.
53. Gray T.R., Choo R.E., **Concheiro M.**, Williams E., Elko A., Jansson L.M., Jones H.E., Huestis M.A., "Prenatal methadone exposure, meconium biomarker concentrations and neonatal abstinence syndrome", *Addiction*, 2010; 105(12):2151-2159.
54. **Concheiro M.**, Gray T., Shakleya D.M., Huestis M.A., "High throughput simultaneous analysis of buprenorphine, methadone, cocaine, opiates, nicotine and metabolites in oral fluid by liquid chromatography tandem mass spectrometry", *Analytical and Bioanalytical Chemistry*, 2010; 398(2):915-924.
55. **Concheiro M.**, Jones H., Johnson R.E., Choo R., Shakleya D.M., Huestis M.A., "Umbilical cord monitoring of in utero drug exposure to buprenorphine and correlation with maternal dose and neonatal outcomes", *Journal of Analytical Toxicology*, 2010; 34:498-505.
56. **Concheiro M.**, Jones H., Johnson R.E., Choo R., Shakleya D.M., Huestis M.A., "Maternal buprenorphine dose, placenta buprenorphine and metabolite concentrations and neonatal outcomes", *Therapeutic Drug Monitoring*, 2010; 32(2):206-215.
57. **Concheiro M.**, Jones H., Johnson R.E., Shakleya D.M., Huestis M.A., "Confirmatory analysis of buprenorphine, norbuprenorphine, and glucuronide metabolites in plasma by LCMSMS. Application to umbilical cord plasma from buprenorphine-maintained pregnant women", *Journal of Chromatography B Analytical Technologies in Biomedical Life Sciences*, 2010; 878(1):13-20.
58. de Castro A., **Concheiro M.**, Shakleya D.M., Huestis M.A., "Development and validation of a liquid chromatography mass spectrometry assay for the simultaneous quantification of methadone, cocaine, opiates and metabolites in human umbilical cord", *Journal of Chromatography B Analytical Technologies in Biomedical Life Sciences*, 2009; 877(27):3065-3071.

59. de Castro A., **Concheiro M.**, Shakleya D.M., Huestis M.A., "Simultaneous Quantification of Methadone, Cocaine, Opiates, and Metabolites in Human Placenta by Liquid Chromatography Mass Spectrometry", *Journal of Analytical Toxicology*, 2009; 33(5):243-252.
60. **Concheiro-Guisan M.**, Shakleya D.M., Huestis M.A., "Simultaneous Quantification of Buprenorphine, Norbuprenorphine, Buprenorphine Glucuronide, and Norbuprenorphine Glucuronide in Human Umbilical Cord by Liquid Chromatography Mass Spectrometry", *Forensic Science International*, 2009; 188(1-3):144-151.
61. **Concheiro-Guisan M.**, Shakleya D.M., Huestis M.A., "Simultaneous Quantification of Buprenorphine, Norbuprenorphine, Buprenorphine Glucuronide, and Norbuprenorphine Glucuronide in Human Placenta by Liquid Chromatography Mass Spectrometry", *Analytical and Bioanalytical Chemistry*, 2009; 394(2):513-522.
62. Kacinko S., Jones H., Johnson R.E., Choo R., **Concheiro-Guisan M.**, Huestis M.A., "Urinary Excretion of Buprenorphine, Norbuprenorphine, Buprenorphine-glucuronide and Norbuprenorphine-glucuronide in Pregnant Women Receiving Buprenorphine Maintenance Treatment", *Clinical Chemistry*, 2009; 55(6):1177-1187.
63. **Concheiro M.**, Cruz A., Mon M., de Castro A., Quintela O., Lorenzo A., Lopez-Rivadulla M., "Ethylglucuronide Determination in Urine and Hair from Alcohol Withdrawal Patients", *Journal of Analytical Toxicology*, 2009; 33(3):155-161.
64. Kacinko S.L., **Concheiro-Guisan M.**, Shakleya D.M., Huestis M.A., "Development and validation of a liquid chromatography-tandem mass spectrometry assay for the simultaneous quantification of buprenorphine, norbuprenorphine, and metabolites in human urine", *Analytical and Bioanalytical Chemistry*, 2008; 392(5):903-911.
65. de Castro A., **Concheiro M.**, Quintela O., Cruz A., López-Rivadulla M., "LC-MS/MS method for the determination of nine antidepressants and some of their main metabolites in oral fluid and plasma. Study of correlation between venlafaxine concentrations in both matrices", *Journal of Pharmaceutical and Biomedical Analysis*, 2008; 48(1):183-193.
66. **Concheiro M.**, De Castro A., Quintela O., Cruz A., López-Rivadulla M., "Determination of illicit and medicinal drugs and their metabolites in oral fluid and preserved oral fluid by liquid chromatography tandem mass spectrometry", *Analytical and Bioanalytical Chemistry*, 2008; 391(6):2329-2338.
67. **Concheiro M.**, De Castro A., Quintela O., Cruz A., López-Rivadulla M., "Determination of illicit drugs and their metabolites in human urine by liquid chromatography-tandem mass spectrometry including relative ion intensity criterion", *Journal of Analytical Toxicology*, 2007; 31(9):573-580.
68. **Concheiro M.**, Simoes S.M., Quintela O., de Castro A., Dias M.J., Cruz A., López-Rivadulla M., "Fast LC-MS/MS method for the determination of amphetamine, methamphetamine, MDA, MDMA, MDEA, MBDB and PMA in urine", *Forensic Science International*, 2007; 171(1):44-51.
69. **Concheiro M.**, De Castro A., Quintela O., Cruz A., López-Rivadulla M., "Confirmation by LC-MS of drugs in oral fluid obtained from roadside testing", *Forensic Science International*, 2007; 170(2-3):156-162.
70. Cruz A., Bouzas C.A., **Concheiro M.**, De Castro A., Quintela O., Bermejo A.M., Pereiro Gómez C., "Drogas y Teratogenia", *Adicciones*, 2006; 18(1):1-18.
71. **Concheiro M.**, De Castro A., Quintela O., López-Rivadulla M., Cruz A., "Determination of drugs of abuse and their metabolites in human plasma by liquid chromatography-mass spectrometry. An application to 156 road fatalities", *Journal of Chromatography B*, 2006; 832(1):81-89.
72. De Castro A., **Concheiro M.**, Quintela O., Cruz A., López-Rivadulla M., "Detección de Fluoxetina y su metabolito activo Norfluoxetina mediante LC-MS en plasma y saliva", *Revista de Toxicología*, 2005; 22(Suplemento 1) ANA 03.
73. López-Rivadulla M., Cruz A., Quintela O., De Castro A., **Concheiro M.**, Bermejo A., Jurado C., "Sumisión química: antecedentes, situación actual, y perspectivas. Protocolos de actuación para estudios multicéntricos", *Revista de Toxicología*, 2005; 22(Suplemento 1) FOR 03.
74. **Concheiro M.**, De Castro A., Quintela O., López-Rivadulla M., Cruz A., "Estudio comparativo de dos técnicas cromatográficas de líquidos para la determinación de anfetaminas y derivados en sangre y orina: CLAR-Fluorescencia vs. CL-EM", *Revista de Toxicología*, 2005; 22(Suplemento 1) ANA 02.
75. **Concheiro M.**, Villain M., Bouchet S., Ludes B., López-Rivadulla M., Kintz P., "Windows of detection of tetrazepam in urine, oral fluid, beard and hair, with a special focus on drug-facilitated crimes", *Therapeutic Drug Monitoring*, 2005; 27(85):565-570.

76. Villain M., **Concheiro M.**, Cirimel V., Kintz P., "Screening method for benzodiazepines and hypnotics in hair at pg/mg level by liquid chromatography-mass spectrometry/mass spectrometry", *Journal of Chromatography B*, 2005; 825(1):72-78.
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81. Quintela O., Cruz A., **Concheiro M.**, De Castro A., López-Rivadulla M., "A sensitive, rapid and specific determination of midazolam in human plasma and saliva by liquid chromatography – electrospray mass spectrometry", *Rapid Communications in Mass Spectrometry*, 2004; 18:2976-2982.
82. **Concheiro M.**, De Castro A., Quintela O., Cruz A., López-Rivadulla M., "Development and validation of a method for the quantitation of Δ^9 tetrahydrocannabinol in oral fluid by liquid chromatography electrospray-mass-spectrometry", *Journal of Chromatography B*, 2004; 810:319-324.

BOOK CHAPTERS

1. Baumann M.H., Bukhari M.O., Lehner K.R., Anizan S., Rice K.C., **Concheiro M.**, Huestis M.A., "Neuropharmacology of 3,4-Methylenedioxypyrovalerone (MDPV), Its Metabolites, and Related Analogs". *Current Topics in Behavioral Neurosciences*, 2017; 32:93-117. Editors: Baumann M.H., Glennon R.A., Wiley J.L. Publisher: Springer.
2. **Concheiro M.**, de Castro A., Lopez-Rivadulla M., "*Psicoestimulantes: Cocaína, Anfetaminas y Éxtasis*", chapter 73 in "*Tratado de Medicina Legal y Ciencias Forenses*", Ed. Bosch, 2012, ISBN-13-9788497905695.
3. de Castro A., **Concheiro M.**, Lopez-Rivadulla M., "*Intoxicaciones originadas por opiáceos*", chapter 72 in "*Tratado de Medicina Legal y Ciencias Forenses*", Ed. Bosch, 2012, ISBN-13-9788497905695.
4. Lopez-Rivadulla, **Concheiro M.**, de Castro A., M., "*Análisis toxicológico: técnicas de extracción de los analitos según el tipo de muestra y sospecha diagnóstica*", chapter 66 in "*Tratado de Medicina Legal y Ciencias Forenses*", Ed. Bosch, 2012, ISBN-13-9788497905695.
5. Lopez-Rivadulla M., de Castro A., **Concheiro M.**, "*Toma de muestras en los diversos casos de intoxicación para su ulterior remisión a los laboratorios con fines analíticos. Legislación. Cadena de custodia*", chapter 65 in "*Tratado de Medicina Legal y Ciencias Forenses*", Ed. Bosch, 2012, ISBN-13-9788497905695.
6. López-Rivadulla M., Cruz A., Quintela O., de Castro A., **Concheiro M.**, "Evaluation of roadside oral fluid drug testing devices in Spain". ROSITA-2 Project. Final report. A. Verstraete & E. Raes (Ed.). Belgium, 2006.

PEER-REVIEWED CONFERENCE PRESENTATIONS

1. Centazzo N., Frederick B.M., Korostyshevsky D., Wanders L., **Concheiro-Guisan M.**, "Fast and simple creatinine determination in wastewater by liquid chromatography-mass spectrometry, Poster presentation at the 2018 meeting of the Society of Forensic Toxicologists (SOFT) Minneapolis, MN, October 7-12, 2018.

2. Hanna J., de Castro A., Lendoiro E., Cruz-Landeira A., López-Rivadulla M., **Concheiro M.**, "Determination of EtG and EtS in umbilical cord to detect alcohol exposure during pregnancy", Oral presentation at the 2018 meeting of The International Association of Forensic Toxicologists (TIAFT), Ghent, Belgium, August 26-30, 2018.
3. Centazzo N., Frederick B.M., Jacox A., Cheng S.Y., **Concheiro M.**, "Wastewater-based epidemiology of tobacco, prescription opioids and drugs of abuse in New York City", Oral presentation at the 2018 meeting of the American Chemistry Society (ACS) in Boston, MA, August 19-23, 2018.
4. Jacox A., Centazzo N., Frederick B.M., Gayle J., Cheng S.Y., **Concheiro M.**, "Wastewater Analysis for Tobacco and Drug Detection in New York City", Oral presentation at the 2018 American Academy of Forensic Sciences (AAFS) meeting, Seattle, WA, February 19-24, 2018.
5. Kim J., de Castro A., Lendoiro E., Cruz-Landeira A., Lopez-Rivadulla M., **Concheiro M.**, "Detection of neonatal cannabis exposure by umbilical cord analysis", Oral presentation at the 2017 joint meeting of the Society of Forensic Toxicologists (SOFT) and The International Association of Forensic Toxicologists (TIAFT), Boca Raton, FL, September 9-14, 2017 (*Rescheduled on January 7-11, 2018*).
6. Blandino V., Wetzel J., Haxhi P., Curtis R., **Concheiro M.**, "Oral fluid vs. urine analysis to monitor synthetic cannabinoids and classic drugs recent exposure", Poster presentation at the 2017 joint meeting of the Society of Forensic Toxicologists (SOFT) and The International Association of Forensic Toxicologists (TIAFT), Boca Raton, FL, September 9-14, 2017 (*Rescheduled on January 7-11, 2018*).
7. Lendoiro E., de Castro A., Gonzalez-Colmenero E., Concheiro-Guisan A., Peñas-Silva P., Macias-Cortiña M., Cruz A., Lopez-Rivadulla M., **Concheiro M.**, "Umbilical cord and placenta for drug exposure detection during pregnancy", Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting, Brisbane, Australia, August 28-September 1, 2016.
8. Miller B., Kim J., **Concheiro M.**, "Stability of synthetic cathinones in preserved oral fluid specimens", Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting, Brisbane, Australia, August 28-September 1, 2016.
9. Jacox A., Wetzel J., Cheng S.Y., **Concheiro M.**, "Quantitative Analysis of Licit and Illicit Drugs in River and Wastewater Samples", Oral presentation at the 2016 Middle Atlantic Regional Meeting, Riverdale, NY, June 9-12, 2016.
10. **Concheiro M.**, Lendoiro E., de Castro A., González-Colmenero E., Concheiro-Guisan A., Peñas-Silva P., Macias-Cortiña M., Cruz-Landeira A., López-Rivadulla M., "Alternative Biological Samples for Drug Exposure Detection during Pregnancy", Poster presentation at "The addicted brain and new treatment frontiers" Sixth Annual Aspen Brain Forum, New York Academy of Sciences, New York, NY, May 18-20, 2016.
11. **Concheiro M.**, Castaneto M., Kronstrand R., Huestis M.A., "Simultaneous determination of 40 novel psychoactive stimulants in urine by liquid chromatography high-resolution mass spectrometry and library matching", Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting, Florence, Italy, August 30-September 4, 2015.
12. **Concheiro M.**, Baumann M.H., Scheidweiler K.B., Huestis M.A., "Nonlinear plasma pharmacokinetics of MDMA and major metabolites in rats and accompanying short-term pharmacodynamic effects". Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting, Orlando, FL, October 28-November 1, 2013.
13. **Concheiro M.**, Lee D., Lendoiro E., Huetis M.A., "Simultaneous Quantification of delta-9-Tetrahydrocannabinol (THC), 11-nor-9-carboxy-THC, Cannabidiol and Cannabinol in Oral Fluid by MicroFlow-Liquid Chromatography-High Resolution Mass Spectrometry". Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting, Funchal, Madeira, Portugal, September 2-6, 2013.
14. **Concheiro M.**, Jones H.E., Johnson R.E., Choo R., Huestis M.A., "Sweat as Alternative Matrix to Monitor Buprenorphine Compliance, and Opioids, Cocaine and Tobacco Use in Opioid-Dependent Pregnant Women". Oral presentation at the American Academy of Forensic Sciences (AAFS) meeting, Washington, DC, February 18-23, 2013.
15. **Concheiro M.**, Jones H.E., Johnson R.E., Choo R., Huestis M.A., "Oral fluid as an alternative matrix to monitor buprenorphine compliance, and opioids, cocaine and tobacco use in opioid-dependent pregnant women". Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting, Boston, MA, July 1-6, 2012.
16. **Concheiro M.**, Gonzalez-Colmenero E., Lendoiro-Belio E., Concheiro-Guisan A., de Castro A., Cruz-Landeira A., Lopez-Rivadulla M., "Alternative matrices for cocaine, opioids and methadone in utero drug-

- exposure detection". Oral presentation at the Society of Hair Testing (SoHT) meeting, Toronto, Canada, June 25-28, 2012.
17. **Concheiro M.**, Jones H.E., Johnson R.E., Choo R., Huestis M.A., "Buprenorphine sublingual tablet pharmacokinetics in plasma, oral fluid and sweat during treatment of opioid-dependent pregnant women". Poster presentation at the International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT) Meeting 2011, Stuttgart, Germany, October 2-6, 2011.
 18. Lendoiro E., de Castro A., Cruz A., López-Rivadulla M., **Concheiro M.**, "Target screening of 35 licit and illicit drugs and metabolites in hair by LC-MSMS". Oral presentation at the Society of Hair Testing (SOHT) meeting, Chamonix, France, March 21-25, 2011.
 19. **Concheiro M.**, Jones H.E., Johnson R.E., Choo R., Shakleya D.M., Huestis M.A., "Umbilical Cord monitoring of in utero drug exposure to buprenorphine, and correlation with maternal dose and neonatal outcomes". Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting, Richmond, Virginia, USA, October 18-22, 2010.
 20. **Concheiro M.**, Shakleya D.M., Huestis M.A., "Simultaneous analysis of buprenorphine, methadone, cocaine, opiates nicotine, and metabolites in sweat by liquid chromatography tandem mass spectrometry". Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting, Bonn, Germany, August 29 – September 2, 2010.
 21. **Concheiro M.**, Gray T.R., Shakleya D. M., Huestis M. A., "High Throughput Simultaneous Analysis of Buprenorphine, Methadone, Cocaine, Opiates, Nicotine, and Metabolites in Oral Fluid by Liquid Chromatography Tandem Mass Spectrometry". Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting, Oklahoma City, OK, October 18-23, 2009.
 22. **Concheiro M.**, Jones H. E., Johnson R. E., Shakleya D. M., Huestis M. A., "Placenta for monitoring in utero drug exposure to buprenorphine and correlation with neonatal outcomes". Oral presentation at the International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT). Montreal, Canada, October 3-8, 2009.
 23. **Concheiro M.**, Shakleya D.M., Huestis M.A., "Comparision of placenta, umbilical cord, and meconium for detection of fetal buprenorphine exposure". Poster presentation at the NIDA International Fórum, Reno, Nevada, USA, June 19-23, 2
 24. **Concheiro M.**, Shakleya D.M., Huestis M.A., "A Novel Method for Simultaneous Quantification of Buprenorphine, Norbuprenorphine, Buprenorphine Glucuronide and Norbuprenorphine Glucuronide in Human Placenta by Liquid Chromatography Tandem Mass Spectrometry". Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting, Phoenix, Arizona, USA, October 26-31, 2008.
 25. **Concheiro M.**, Mon M., Cruz A., de Castro A., Quintela O., López-Rivadulla M., "Determinación de Etilglucurónido en orina y pelo mediante LC-MS/MS. Aplicación en pacientes a tratamiento de deshabituación alcohólica". Oral presentation at the XVII Congreso Español de Toxicología, Santiago de Compostela, Spain, September 26-28, 2007.
 26. **Concheiro M.**, de Castro A., Quintela O., Cruz A., López-Rivadulla M., "Alcohol, illicit and medical drugs involved in fatal accidents in the northwest of Spain". Poster presentation at the Joint Meeting of The International Association of Forensic Toxicologists (TIAFT and the International Council on Alcohol, Drugs and Traffic Safety (ICADTS), and featuring the 8th Interlock Symposium (IIS), Seattle, Washington, USA, August 26-30, 2007.
 27. **Concheiro M.**, de Castro A., Quintela O., Cruz A., López-Rivadulla M., "Confirmation by LC-MS of drugs in oral fluid obtained from road side testing". Oral presentation at the The International Association of Forensic Toxicologists (TIAFT) Meeting, Ljubljana, Slovenia, August 26 – September 1, 2006.
 28. **Concheiro M.**, de Castro A., Quintela O., Cruz A., López-Rivadulla M., "Estudio comparativo de dos técnicas cromatografía de líquidos para la determinación de anfetaminas y derivados en sangre y orina: CLAR-Fluorescencia vs. LC-MS". Oral presentation at the XVI Congreso Español de Toxicología, Cáceres, Spain, September 28-30, 2005.
 29. **Concheiro M.**, Villain M., López-Rivadulla M., Kintz P., "Fenêtres de détection du tétrazépam dans les urines, la salive, la barbe et les cheveux, avec une attention particulière pour les cas de soumission chimique ». Oral presentation at the XIIIe congrès annuel de la Société Française de Toxicologie Analytique, Pau, France, June 8-10, 2005.
 30. **Concheiro M.**, Cruz A., De Castro A., Quintela O., López-Rivadulla M., "Methology and laboratory results". Oral presentation at the ROSITA II Mid-Project Meeting, Santiago de Compostela, Spain, November 12-13, 2004.

31. **Concheiro M.**, Teixeira H., de Castro A., Quintela O., Cruz A., López-Rivadulla M.. "Determinação de delta9- THC en fluido oral por LC-MS con electrospary positivo, após previa extracção em fase sólida". Poster presentation at the 2º Congreso Nacional de Medicina Legal, Lisbon, Portugal, November 14-15, 2003.
32. **Concheiro M.**, Cruz A., Punín E., Quintela O., Bermejo A.M., López-Rivadulla M., "Determination of the designer drugs MDMA, MDA, MDEA and MBDB in whole blood, urine and saliva using HPLC system with native fluorescence detection". Poster presentation at the 40th Meeting of The International Association of Forensic Toxicologists (TIAFT), Paris, France, August 26-30, 2002.

INVITED PRESENTATIONS

1. "Databases in Forensic Toxicology". Invited talk at the Master of Forensic Sciences Seminar Series, John Jay College, CUNY, New York, NY, February 13, 2018.
2. "High Res Orbitrap MS for detecting new psychoactive drugs, a user's perspective". Invited talk at the Thermo Scientific seminar at the 2017 joint meeting of the Society of Forensic Toxicologists (SOFT) and The International Association of Forensic Toxicologists (TIAFT), Boca Raton, FL, September 9-14, 2017 (*Rescheduled on January 7-11, 2018*).
3. "Current Applications and New Trends of Liquid Chromatography-Mass Spectrometry in Forensic Toxicology". Invited talk at CPSA (Clinical and Pharmaceutical Solutions through Analysis) meeting, Langhorne, PA, October 24, 2017.
4. "The Challenge of New Psychoactive Substances in Forensic Toxicology". Invited talk at Queensborough Community College, New York, NY, October 30, 2015.
5. "Drugs of Abuse Bioanalysis During Pregnancy: Recent Advances and Novel Sampling Strategies". Invited talk at the Metro Women Chemists Seminars, Pace University, New York, NY, April 2, 2015.
6. "Toxicology Research on Drugs and Traffic Safety". Invited talk at the Master of Forensic Sciences Seminar Series, John Jay College, CUNY, New York, NY, February 24, 2015.
7. "Liquid Chromatography-High Resolution Mass Spectrometry Confirmation Methods". Invited talk (workshop) at the Society of Forensic Toxicologists (SOFT) meeting, Orlando, FL, October 28-November 1, 2013.
8. "Liquid Chromatography-High Resolution Mass Spectrometry Confirmation Methods". Invited talk at the Symposium "Applications of Higher Resolution Mass Spectrometry in Drug Testing" conference organized by the New York State Division of Criminal Justice Services, Albany, NY, September 23-24, 2013.
9. "In utero drug exposure. Basic aspects and analytical methods". Invited talk (workshop) at the International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT) Meeting 2011, Stuttgart, Germany, October 2-6, 2011.
10. "Analytical advances in oral fluid drug testing. Confirmation Testing". Invited talk (workshop) at the Society of Forensic Toxicologists (SOFT) - The International Association of Forensic Toxicologists (TIAFT) joint Meeting 2011, San Francisco, CA, September 26-30, 2011.
11. "In utero drug exposure. Analysis of Maternal and Fetal biological matrices". Invited talk (workshop) at *Jornadas Ibéricas de Toxicología*, Covilhã, Portugal, March 10-12, 2011.

INVITED REFEREE IN PEER-REVIEWED JOURNALS

- Analytical and Bioanalytical Chemistry
- *Analytica Chimica Acta*
- *Addiction*
- Alcohol and Alcoholism
- Analytical Methods
- Bioanalysis

- Clinical Toxicology
- Current Pharmaceutical Design
- Drug Design, Development and Therapy
- Drug Testing and Analysis
- Forensic Science International
- Forensic Sciences Research
- Journal of Pharmaceutical and Biomedical Analysis
- Journal of Chromatography A
- Journal of Chromatography B
- Journal of Forensic and Legal Medicine
- Journal of Forensic Sciences
- Rapid Communications in Mass Spectrometry
- The Journal of Pediatrics
- Revista Española de Medicina Legal

EDITORIAL BOARD

- Associate Editor-in-Chief of "Forensic Sciences Research" (Print ISSN: 2096-1790 Online ISSN: 2471-1411) since January 2017.

PROFESSIONAL ASSOCIATIONS

- Member of the International Association of Forensic Toxicologists (TIAFT) since 2004.
 - TIAFT Young Scientist Committee Member from November 2014 to August 2018.
- Member of the Society of Hair Testing (SOHT) since 2009.
- Member of the International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT) since 2010.
- Member of the Society of Forensic Toxicologists (SOFT) since 2012.
- Member of the Council of Forensic Science Educators (COFSE) since 2017.
 - COFSE Higher Education Committee Member since 2018.

LANGUAGES

- Spanish – native speaker
- English – speak fluently and read/write with high proficiency
- French – speak, read and write with basic competence