

CURRICULUM VITAE

MARTA CONCHEIRO-GUISAN

Associate Professor of Toxicology
Program Director of Master in Science in Forensic Science

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EDUCATION

- 2002-2006 Ph.D. in Forensic Toxicology, Department of Anatomical Pathology and Forensic Sciences, School of Medicine, University of Santiago de Compostela, Spain
Dissertation Title: "Liquid chromatography tandem mass spectrometry for the determination of amphetamine derivatives and other illicit drugs in biological matrices"
- 1997-2002 Pharm.D. (*Licenciatura de Farmacia*), School of Pharmacy, University of Santiago de Compostela, Spain

ACADEMIC & PROFESSIONAL EXPERIENCE

- August 2023-Present Program Director of Master in Science in Forensic Science
Department of Sciences, John Jay College of Criminal Justice, City University of New York, New York, NY
Main duties: management of admissions, planning and marketing, administration, course development and oversight, advising, graduation clearance, and program evaluation and assessment.
- September 2022-Present Associate Professor of Toxicology
Department of Sciences, John Jay College of Criminal Justice, City University of New York, New York, NY
Main duties: teaching graduate courses; coordinator of undergraduate and graduate toxicology courses; research in toxicology; grant management.
- January 2015-August 2022 Assistant Professor of Toxicology
Department of Sciences, John Jay College of Criminal Justice, City University of New York, New York, NY
Main duties: teaching graduate courses; coordinator of undergraduate and graduate toxicology courses; research in toxicology; grant management.

March 2012-December 2014	Research Scientist Chemistry and Drug Metabolism Section, National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH), Baltimore, MD Main duties: laboratory staff management; research in toxicology.
January 2010-March 2012	Lecturer and Researcher (<i>Investigador del Programa Isidro Parga Pondal</i>) Department of Anatomical Pathology and Forensic Sciences, University of Santiago de Compostela, Spain Main duties: teaching undergraduate courses; research in toxicology; driving under the influence casework duties (oral fluid analysis and interpretation report).
January 2008-December 2009	Postdoctoral Fellow Chemistry and Drug Metabolism Section, National Institute on Drug Abuse, National Institutes of Health, Baltimore, MD Main duties: research in toxicology.
January-December 2007	Staff Scientist Cientisol S.L., Santiago de Compostela, Spain Main duties: driving under the influence casework duties (oral fluid analysis and interpretation report); human performance casework duties (urine and plasma/blood analysis and interpretation report).
April-December 2007	Postdoctoral Fellow Department of Anatomical Pathology and Forensic Sciences, University of Santiago de Compostela, Spain Main duties: research in toxicology; driving under the influence casework duties (oral fluid analysis and interpretation report); human performance casework duties (urine and plasma/blood analysis and interpretation report).

AWARDS & FELLOWSHIPS

May 2023	CUNY Academy Travel Award Stefan Bernard Baumrin for Full-time Associate Professors
March 2019	CUNY Academy Stewart Travel Awards for Assistant Professors for National & International Conferences
January-December 2009	Postdoctoral INVEST Fellowship, National Institute on Drug Abuse International Program
January-December 2008	Postdoctoral Fellowship, <i>Fundación Española de Ciencia y Tecnología</i>
January 2003-December 2006	Graduate Student Fellowship, <i>Ministerio de Ciencia y Educación de España</i>
October-December 2002	Graduate Student Fellowship, <i>Consellería de Educación e Ordenación Universitaria da Xunta de Galicia</i>

October 2001-June 2002

Research Assistantship, *Consellería de Educación e Ordenación
Universitaria da Xunta de Galicia*

HONORS

- 2024 Senior Mentor Award from the Office for Student Research and Creativity, John Jay College, City University of New York.
- 2020 Faculty Scholarly Excellence Award from the Office for the Advancement of Research, City University of New York.
- 2018 Achievement Award from The International Association of Forensic Toxicologists (TIAFT).
- 2006 Best Ph.D. Award offered by the University of Santiago de Compostela, Spain.
- 2006 Best Ph.D. Award offered by the Eloy Diez Foundation, Pontevedra, Spain.
- 2002 Best Pharm.D. Student Award offered by the University of Santiago de Compostela, Spain.
- 2002 Best Graduate Student Award offered by the Regional Government of Galicia, Spain.
- 2002 National Award for the best Graduate Student in Pharmacy School offered by the Government of Spain.

GRANTS & CONTRACTS

NIJ FY24 Research and Development
in Forensic Science for Criminal
Justice Purposes

Effective date: January 1st 2025 – December 31st 2027
Name of PI: Marta Concheiro-Guisan & Ana Pego
Project title: "Development of new cocaine hair testing
guidelines: investigation of decontamination protocols, damage/
adulteration evaluation, and cosmetic treatment impact"
Funding Agency: Office of Justice Programs, National Institute
of Justice
Total costs: \$185,870

Contract with Neogen

Effective date: August 31st 2023 – January 31st 2024
Name of PI: Marta Concheiro-Guisan
Project title: "NeoSal 2.0 Validation Project. Oral Fluid Method
Development and Validation"
Funding Agency: Neogen
Total costs: \$23,474

Forensic Sciences Foundation Lucas Research Grant Program for 2021-2022	Effective date: October 31 st 2021 – October 31 st 2022 Name of PI: Marta Concheiro-Guisan Project title: "Impact of Blood Preservatives and Anticoagulants on Cannabinoid Quantitative Analysis" Funding Agency: The Forensic Sciences Foundation, INC. Total costs: \$3,000
Cycle 52 PSC-CUNY Research Award	Effective date: July 1 st 2021 – July 1 st 2022 Name of PI: Marta Concheiro-Guisan Name of co-PI: Kate Good Project title: "Pharmaceuticals and Drugs of Abuse in New York/New Jersey Harbor Estuary Water" Funding Agency: The City University of New York Total costs: \$3,500
Contract with the Defense Health Agency (DHA), Department of Defense (DoD)	Effective date: August 1 st 2019 – September 9 th 2019 Name of PI: Marta Concheiro-Guisan Project title: "Specimens for ethyl-glucuronide (ETG) levels for the Department of Defense HIV/AIDS prevention program Defense Health Agency (DHA)" Funding Agency: Department of Defense through Leidos, Inc. Total costs: \$39,975
Contract with Brown University	Effective date: March 14 th 2019 – March 13 th 2020 Name of PI: Marta Concheiro-Guisan Project title: "Determination of Opioid Exposure During Pregnancy by Hair Analysis". Funding Agency: Brown University. Total costs: \$2,400
Army Research Office (ARO) for Fundamental Research W911NF-17-S-0002	Effective date: January 1 st 2019 – September 1 st 2019 Name of PI: Brian Giebel Name of co-PIs: Marta Concheiro-Guisan, Rinat Abzalimov Project title: "Determining the recognition, provenance, and fate of anthropogenic chemicals in heterogeneous and complex environments using multiple mass spectrometry fingerprinting techniques" Funding Agency: Department of Defense Total costs: \$60,000
Cycle 49 PSC-CUNY Research Award	Effective date: July 1 st 2018 – July 1 st 2019 Name of PI: Marta Concheiro-Guisan Project title: "Determination of Pharmaceuticals in Biofilm Samples from the Hudson River" Funding Agency: The City University of New York Total costs: \$3,500

FY2016 Department of Defense Research and Education Program of Historically Black Colleges and Universities and Minority-Serving Institution Equipment/Instrumentation Program W911NF-15-R-0025	Effective date: June 1 st 2016 – June 1 st 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 1 st 2016 – July 1 st 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 5 th 2016 –February 7 th 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 3 rd 2015 – August 3 rd 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 14 th 2015 – May 14 th 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

RESEARCH 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. Dombroski A., Betancourt M.F., Alvarado A., St Fleur P., Pomales A., **Concheiro-Guisan M.**, Pego A.M. The influence of cosmetic treatments in the uptake of in vitro cocaine contamination in hair. *Drug Testing and Analysis*, 2024, doi: 10.1002/dta.3741. Online ahead of print.
2. Acosta T., Chavez V., Fernandez N., Perry E., Good K., **Concheiro M.** The impact of combined sewer overflows on pharmaceutical and illicit drug levels in New York/New Jersey Waterways. *Environmental Toxicology and Chemistry*, 2024, doi: 10.1002/etc.5891. Online ahead of print.
3. Polke M., **Concheiro M.**, Cooper G., Bogdal C., Baumgartner M.R., Kraemer T., Binz T.M. Development and validation of a liquid chromatography-tandem mass spectrometry (LC-MS/MS) method including 25 novel synthetic opioids in hair and subsequent analysis of a Swiss opioid consumer cohort. *Drug Testing and Analysis*, 2024, doi: 10.1002/dta.3663. Online ahead of print.
4. **Concheiro M.**, Towler S. Elmore J.S., Chojnacki M.R., Acosta T., Suzuki M., Rice K.C., Baumann M.H. Brain concentrations of MDPV and its metabolites in male rats: relationship to pharmacodynamic effect. *Current Pharmaceutical Design*, 2022;28(32):2653-2663. doi: 10.2174/1381612828666220907100036.
5. De Freitas L., Fonseca Pego A.M., Kronstrand R., Lendoiro E., de Castro-Ríos A., **Concheiro M.** Fast and sensitive method for the determination of 17 designer benzodiazepines in hair by liquid chromatography-tandem mass spectrometry. *Journal of Analytical Toxicology*, 2022;46(8):852-859. doi: 10.1093/jat/bkac044
6. Cheng S.Y., Delgado-Cruzata L., Clement C.C., Zacarias O., **Concheiro-Guisan M.**, Towler N., Snyder T., Zheng M., Almodovar N., Gonzalez C., Romaine M., Spase A.M., Champeil. Cytotoxicity, crosslinking and biological activity of three mitomycins. *Bioorganic Chemistry*, 2022; 123:105744. Doi: 10.1016/j.bioorg.2022.105744.
7. López-Rabuñal A., Lendoiro E., **Concheiro-Guisán M.**, González-Colmenero E., Peñas-Silva P., Concheiro-Guisán A., Macias-Cortaña M., López-Rivadulla M., de-Castro-Ríos A, Cruz A. Meconium and maternal hair analysis vs. medical records to monitor antidepressants and benzodiazepines exposure during pregnancy. *Forensic Toxicology*, 2021. doi: 10.1007/s11419-021-00576-9.

8. Centazzo N., Chojnacki M.R., Elmore J.S., Rodriguez R., Acosta T., Suzuki M., Rice K.C., Baumann M.H., **Concheiro M.** Brain concentrations of methylone and its metabolites after systemic methylone administration: Relationship to pharmacodynamic effects. *Journal of Pharmacology and Experimental Therapeutics*, 2021; 377(3):398-406. doi: 10.1124/jpet.121.000531.
9. **Concheiro M.**, Gutierrez F.M., Ocampo A., Lendoiro E., González-Colmenero E., Concheiro-Guisán A., Peñas-Silva P., Macías-Cortiña A., Cruz-Landeira A., López-Rivadulla A., de-Castro-Ríos A. Assessment of biological matrices for the detection of in utero cannabis exposure. *Drug Testing and Analysis*, 2021. doi: 10.1002/dta.3034.
10. Hahn B., Harvey A.N., **Concheiro-Guisan M.**, Huestis M.A., Ross T.J., Stein E.A. Nicotinic receptor modulation of the default mode network. *Psychopharmacology (Berl.)*, 2021; 238(2):589-597. doi: 10.1007/s00213-020-05711-9.
11. González-Colmenero E., Concheiro-Guisán A., Lorenzo-Martínez M., **Concheiro M.**, Lendoiro E., de-Castro-Ríos A., Cañizo-Vázquez D., Martínez-Reglero C., Fernández-Lorenzo J.R. Drug testing in biological samples vs. maternal surveys for the detection of substance use during whole pregnancy. *Journal of Addictive Diseases*, 2021; 39(2):175-182. doi: 10.1080/10550887.2020.1831137.
12. Towler S., **Concheiro M.**, Pearing S., Rodda L.N. Evaluation and applicability of Alere iCup DX 14 for rapid postmortem urine drug screening at autopsy. *Journal of Forensic Sciences*, 2021, 66(1):375-382. doi: 10.1111/1556-4029.14577.
13. Platosz N.A., Binz T.M., Baumgartner M.R., Lendoiro E., de Castro A., **Concheiro M.** Quantification of classic, prescription, and synthetic opioids in hair by LC-MSMS. *Journal of Analytical Toxicology*, 2020. doi: 10.1093/jat/bkaa152.
14. Lau T., **Concheiro M.**, Cooper G. Determination of 30 synthetic cathinones in postmortem blood using LC-MSMS. *Journal of Analytical Toxicology*, 2020; 44(7):679-687. doi: 10.1093/jat/bkaa071.
15. López-Rabuñal A., Lendoiro E., González-Colmenero E., Concheiro-Guisán A., **Concheiro-Guisán M.**, Peñas-Silva P., Macías-Cortiña M., López-Rivadulla M., Cruz A., de-Castro-Ríos A. Assessment of tobacco exposure during pregnancy by meconium analysis and maternal interview. *Journal of Analytical Toxicology*, 2020; 44(8):797-802. doi: 10.1093/jat/bkaa027.
16. López-Rabuñal A., Lendoiro E., **Concheiro M.**, López-Rivadulla M., Cruz A., de-Castro-Ríos A. LC-MS/MS method for the determination of antidepressants and benzodiazepines in meconium. *Journal of Analytical Toxicology*, 2020; 44(6):580-588. doi: 10.1093/jat/bkaa012.
17. Browne T., **Concheiro-Guisan M.**, Prinz M. Semiquantitative detection of signature peptides in body fluids by liquid chromatography tandem mass spectrometry (LC-MS/MS). *Forensic Science International: Genetics Supplement Series*, 2019; 7(1):208-210. doi: 10.1016/j.fsigss.2019.09.080.
18. Chesser R., Pardi J., **Concheiro M.**, Cooper G. Distribution of synthetic opioids in postmortem blood, vitreous humor and brain. *Forensic Science International*, 2019; 305:109999. doi: 10.1016/j.forsciint.2019.109999.
19. Mei V., **Concheiro M.**, Pardi J., Cooper G. Validation of an LC-MS/MS method for the quantification of 13 designer benzodiazepines in blood. *Journal of Analytical Toxicology*, 2019; 43(9):688-695. doi: 10.1093/jat/bkz063.
20. Centazzo N., Frederick B.M., Jacox A., Cheng S.Y., **Concheiro-Guisan M.** Wastewater analysis for nicotine, cocaine, amphetamines, opioids and cannabis in New York City. *Forensic Sciences Research*, 2019;4(2):152-167. doi: 10.1080/20961790.2019.1609388.
21. López-Rabuñal A., Lendoiro E., **Concheiro M.**, López-Rivadulla M., Cruz A., de-Castro-Ríos A. A LC-MS/MS method for the determination of common synthetic cathinones in meconium. *Journal of Chromatography B, Analytical technologies in the biomedical and life sciences*, 2019;1124:349-355. doi: 10.1016/j.jchromb.2019.06.030.
22. He Y., **Concheiro-Guisan M.** Microextraction sample preparation techniques in forensic analytical toxicology. *Biomedical Chromatography*, 2019;33(1):e4444. doi: 10.1002/bmc.4444.

23. 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*, 2019; 37:90-103. doi: 10.1007/s11419-018-0439-4.
24. **Concheiro M.**, Chesser R., Pardi J., Cooper G. Postmortem Toxicology of New Synthetic Opioids. *Frontiers in Pharmacology*, 2018;9:1210. doi: 10.3389/fphar.2018.01210.
25. **Concheiro M.**, Huestis M.A. Drug exposure during pregnancy: analytical methods and toxicological findings. *Bioanalysis*, 2018, 10(8):587-606. doi: 10.4155/bio-2017-0260.
26. 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;10(8):1305-1314. doi: 10.1002/dta.2381.
27. 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* 2018;10(4):636-643. doi: 10.1002/dta.2307.
28. Blandino V., Wetzel J., Kim J., Haxhi P., Curtis 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. doi: 10.2174/1389201018666171122113934.
29. **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. doi: 10.1002/dta.2087.
30. 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. doi: 10.1016/j.chroma.2017.03.066.
31. 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. doi: 10.1080/20961790.2016.1270812.
32. Miller B., Kim J., **Concheiro M.** Stability of synthetic cathinones in oral fluid samples. *Forensic Science International* 2017; 274:13-21. doi: 10.1016/j.forsciint.2016.11.034.
33. 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. ABC3 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. doi: 10.1111/bcpt.12703.
34. 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. doi: 10.1038/npp.2016.213.
35. 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. doi: 10.1080/03602532.2016.1188937.
36. 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. doi: 10.1016/j.bioorg.2016.02.003.
37. 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. doi: 10.1016/j.drugalcdep.2016.04.004.

38. 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. doi: 10.1002/dta.1966.
39. 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. doi: 10.1007/s00216-016-9599-4.
40. Swortwood M.J., Carlier J., Ellefsen K.N., Wohlfarth A., Diao X., **Concheiro-Guisan M.**, Kronstrand R., Huestis M.A. *In vitro*, *in vivo* and *in silico* metabolic profiling of α -pyrrolidinopentiothiophenone, a novel thiophene stimulant. *Bioanalysis*, 2016; 8(1):65-82. doi: 10.4155/bio.15.237.
41. 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. doi: 10.1093/jat/bkv101.
42. 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. doi: 10.1016/j.forsciint.2016.01.013.
43. 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. doi: 10.1007/s11419-015-0287-4.
44. 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. doi: 10.1111/adb.12201.
45. 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. doi: 10.4155/bio.15.127.
46. **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. doi: 10.1016/j.chroma.2015.04.002.
47. Castaneto M.S., Barnes A.J., **Concheiro M.**, Klette K.L., Martin T.A., Huestis M.A. 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. doi: 10.1007/s00216-015-8660-z.
48. 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. doi: 10.1002/dta.1784.
49. 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. doi: 10.1007/s11419-015-0266-9.
50. 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. doi: 10.1007/s11419-015-0263-z.
51. 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. doi: 10.1038/npp.2014.306.

52. **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. doi: 10.1002/dta.1742.
53. Concheiro-Guisan A., **Concheiro M.** Bioanalysis during pregnancy: recent advances and novel sampling strategies. *Bioanalysis*, 2014; 6(23):3133-53. doi: 10.4155/bio.14.278.
54. 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. doi: 10.1371/journal.pone.0113694.
55. 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. doi: 10.1093/jat/bku077.
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Peer-Reviewed Publications in Spanish Journals

1. 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.
2. 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.
3. 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.
4. **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.
5. Quintela O., Cruz A., **Concheiro M.**, De Castro A., López-Rivadulla M. Metodología LC-MS. Aspectos generales de la técnica y sus aplicaciones en el campo de la toxicología. *Revista de Toxicología*, 2005; 22:7-14.

BOOKS

Book Chapters

1. Towler S., **Concheiro M.** Target Analysis of Phenethylamines, Tryptamines, and Piperazines in Blood and Urine. Chapter 3 (28 pages) in "Methods for Novel Psychoactive Substance Analysis". Editors: Concheiro M., Scheidweiler K. Publisher: Humana Press, Springer Nature, 2023. ISBN 978-1-0716-2604-7 ISBN 978-1-0716-2605-4 (eBook).
2. Centazzo N., **Concheiro-Guisan M.** Analytical Techniques for the Identification and Quantification of Drugs and Metabolites in Wastewater Samples. Chapter 2 (28 pages) in "Wastewater-Based Epidemiology: Estimation of Community Consumption of Drugs and Diets". Editors: Subedi B., Burgard D.A., Loganathan B.G. Publisher: ACS Symposium Series; American Chemical Society, 2019, ISBN 9780841234406 | ISBN 9780841234413.
3. 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. Chapter in "Current Topics in Behavioral Neurosciences". Editors: Baumann M.H., Glennon R.A., Wiley J.L. Publisher: Springer, 2017; 32:93-117.
4. 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. Editors: Verstraete A. & Raes E. Belgium, 2006.

Book Chapters in Spanish

1. **Concheiro M.**, de Castro A., López-Rivadulla M. Psicoestimulantes: Cocaína, Anfetaminas y Éxtasis. Chapter 73 (16 pages) in "Tratado de Medicina Legal y Ciencias Forenses. Tomo II", Editor: Delgado Bueno S. Publisher: Bosch, 2012, ISBN-13-9788497905695.
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Book Editor

"Methods for Novel Psychoactive Substance Analysis". Editors: **Concheiro M.**, Scheidweiler K. Ten chapters, 281 pages. Publisher: Humana Press, Springer Nature, 2023. ISBN 978-1-0716-2604-7 ISBN 978-1-0716-2605-4 (eBook).

SELECTED PEER-REVIEWED CONFERENCE PRESENTATIONS

1. Koffer M., Orr M., Rosas G., Palma A., **Concheiro-Guisan M.** Determination of Drugs and Metabolites in Oral Fluid: Comparison of Different Extraction Procedures. Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in St. Louis, MO, October 29-November 1, 2024.
2. Mulkeen S., Alghashmi S., De La Rosa R., Delvalle C., **Concheiro-Guisan M.**, Yonamine M., Fonseca Pego A.M. Quick and Easy Method for the Determination of Cocaine and Six Metabolites in Postmortem Hair. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in St. Louis, MO, October 29-November 1, 2024.
3. Calvagna R., Orr M., Fuloria M., Charron M.J., **Concheiro-Guisan M.** Cortisol in Hair as a Stress Biomarker in Pregnant Women. Oral presentation at The International Association of Forensic Toxicologist (TIAFT) meeting in St. Gallen, Switzerland, September 2-6, 2024.
4. Fosenca Pego A.M., Glatfelter G.C., Manke D.R., Chadeayne A., Baumann M.H., **Concheiro M.** Investigating Psilacetin Metabolism: in vivo Conversion to Psilocin in Male Rats. Oral presentation at The International Association of Forensic Toxicologist (TIAFT) meeting in St. Gallen, Switzerland, September 2-6, 2024.
5. O'Leary B., **Concheiro M.** Impact of Gold Top SST (Gel % Clot) Collection Tubes on Cannabinoid Quantitative Analysis. Poster presentation at the American Academy of Forensic Sciences (AAFS) meeting in Denver, CO, February 19-24, 2024.
6. Dombroski A, Faure Betancourt M., Alvarado A., St. Fleur P., **Concheiro M.**, Pego A. Cocaine Hair Today, Gone Tomorrow: Unveiling the Impact of Cosmetic Treatments on External Contamination. Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in Denver, CO, October 31-November 3, 2023.
7. O'Leary B., **Concheiro M.** Impact of Blood Preservatives and Anticoagulants on Cannabinoid Quantitative Analysis. Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in Denver, CO, October 31-November 3, 2023.
8. Fernandez C., Aguilar D., Milman G., **Concheiro M.** Comparison of Hydrolysis Efficiency and Performance of Four Recombinant β -glucuronidase Enzymes for the Detection of Opioids in Urine Samples by LC-MS/MS. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in Denver, CO, October 31-November 3, 2023.
9. Chavez V., Acosta T., Fernandez N., Good K., **Concheiro M.** Pharmaceuticals and Drugs of Abuse in New York City Rivers. Pregnancy. Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting in Rome, Italy, August 27-31, 2023.
10. Pagano E., **Concheiro M.** Determination of Cannabidiol Metabolites in Umbilical Cord to Detect Cannabidiol Use During Pregnancy. Poster presentation at The International Association of Forensic Toxicologists (TIAFT) meeting in Rome, Italy, August 27-31, 2023.
11. Yulianto E., Capasso A., DiClemente R., Marianian A., Markova D., **Concheiro M.** Quantification of Phosphatidylethanol in Whole Blood and Dried Blood Spots by LC-MSMS. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in Cleveland, OH, October 31-November 4, 2022.
12. Acosta T., Fernandez N., Chavez V., Good K., **Concheiro M.** Determination of Pharmaceuticals and Drugs of Abuse in New York/New Jersey Harbor Estuary Water. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in Cleveland, OH, October 31-November 4, 2022.
13. Burris J.M., Cadau A., Castaneto M., **Concheiro-Guisan M.**, Glicksberg L., Ha H.H., Karschner E.L., Kennedy G., Martinez A., Olson B., Peace M.R., Samano K.L, Sklerov D., Wardwell C.M. The SOFT Professional Mentoring Program: Forward Momentum. Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in Cleveland, OH, October 31-November 4, 2022.

14. De Freitas L., Fonseca Pego A.M., Kronstrand R., Lendoiro E., de Castro-Ríos A., **Concheiro M.** Fast and sensitive method for the determination of 17 designer benzodiazepines in hair by liquid chromatography-tandem mass spectrometry. Oral presentation at The International Association of Forensic Toxicologists (TIAFT) meeting in Versailles, France, September 5-7, 2022.
15. **Concheiro M.**, Gutierrez F.M., Ocampo A., Lendoiro E., González-Colmenero E., Concheiro-Guisán A., Peñas-Silva P., Macías-Cortiña A., Cruz-Landeira A., López-Rivadulla A., de-Castro-Ríos A. Assessment of biological matrices for the detection of in utero cannabis exposure. Oral presentation at the American Academy of Forensic Sciences (AAFS) meeting in Seattle, WA, February 21-25, 2022.
16. **Marschke K.**, Concheiro M. Sensitive LC-MSMS method for the simultaneous quantification of 32 drugs in oral fluid. Poster presentation at the American Academy of Forensic Sciences (AAFS) meeting in Seattle, WA, February 21-25, 2022.
17. Aguilar D., Jewell I., Milman G., Concheiro M. Fast analysis of 28 benzodiazepines and metabolites in hydrolyzed and non-hydrolyzed urine by LC-MSMS. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in Nashville, TN, September 26-October 1, 2021.
18. Gutierrez F.M., Ocampo A., de-Castro-Ríos A., Lendoiro E., Cruz-Landeira A., López-Rivadulla A., **Concheiro M.** Placenta as an alternative matrix to detect cannabis exposure during pregnancy. Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in Nashville, TN, September 26-October 1, 2021.
19. Nola S., Acosta T., **Concheiro M.** Fast screening method for drug facilitated sexual assault drugs by direct mass spectrometric analysis of dried urine spots. Poster presentation at the Society of Forensic Toxicologists (SOFT) meeting in Nashville, TN, September 26-October 1, 2021.
20. Burris J.M., Cadau A., Castaneto M., **Concheiro-Guisan M.**, Glicksberg L., Ha H.H., Karschner E.L., Olson B., Peace M.R., Samano K.L, Smith M.L., Sukta A., Wardwell C.M. The SOFT Professional Mentoring Program: To mentee(or) or not to mentee(or)? Oral presentation at the Society of Forensic Toxicologists (SOFT) meeting in Nashville, TN, September 26-October 1, 2021.
21. Towler S., Acosta T., Elmore J.S., Chojnacki M., Baumann M., **Concheiro M.** "Brain concentrations of 3,4-methylenedioxypyrovalerone (MDPV) and its metabolites in male rats: the relationship to pharmacodynamic effects". Oral presentation at the American Academy of Forensic Sciences (AAFS) virtual meeting, February 15-19, 2021.
22. Towler S., **Concheiro M.**, Pearing S., Rodda L. "Evaluation and applicability of rapid point-of-care screening of postmortem urine at autopsy". Poster presentation at the 2020 Society of Forensic Toxicologists (SOFT) meeting, SOFTember, September 8-20, 2020 (virtual).
23. Platosz N., **Concheiro-Guisan M.** "Identification and quantification of classic, prescription and synthetic opioids in hair by liquid chromatography tandem mass spectrometry". Oral presentation at the 2020 American Academy of Forensic Sciences (AAFS) meeting in Anaheim, CA, February 17-22, 2020.
24. Giebel B.M., Abzalimov R., **Concheiro-Guisan M.** "Can multiple mass spectrometry platforms make indistinguishable organic micro-pollutants distinguishable in the natural environment?" Poster presentation at the 2019 AGU (American Geophysical Union) 100 meeting in San Francisco, CA, December 9-13, 2019.
25. Chesser R., Pardi J., **Concheiro-Guisan M.**, Cooper G. "Distribution of synthetic opioids in postmortem blood, vitreous humor and brain". Oral presentation at the 2019 Society of Forensic Toxicologists (SOFT) meeting in San Antonio, TX, October 14-18, 2019.
26. Lau T., **Concheiro M.**, Cooper G. "Determination of 30 synthetic cathinones in postmortem blood using liquid chromatography-tandem mass spectrometry (LC-MS/MS)". Oral presentation at the 2019 Society of Forensic Toxicologists (SOFT) meeting in San Antonio, TX, October 14-18, 2019.
27. Towler S., Centazzo N., **Concheiro-Guisan M.** "Determination of MDPV and its major metabolites in rat brain by liquid chromatography-mass spectrometry". Poster presentation at the 2019 Society of Forensic Toxicologists (SOFT) meeting in San Antonio, TX, October 14-18, 2019.
28. Mei V., **Concheiro M.**, Pardi J., Cooper G. "Validation of a liquid chromatography-tandem mass spectrometry (LC-MSMS) method for the quantification of 13 designer benzodiazepines in postmortem

- blood". Oral presentation at the 2019 Society of Forensic Toxicologists (SOFT) meeting in San Antonio, TX, October 14-18, 2019.
29. Browne T., **Concheiro-Guisan M.**, Prinz M. "Quantitative detection of signature peptide in body fluids by liquid chromatography tandem mass spectrometry (LC-MS/MS)". Poster presented at the 28th International Society for Forensic Genetics (ISFG) meeting, Prague, Czech Republic, September 9-13, 2019.
 30. Centazzo N., Rodriguez R., Acosta T., Baumann M., **Concheiro M.** "Pharmacokinetics of methylone and its metabolites in male rats: relationship to brain serotonin depletion". Poster presentation at the 2019 meeting of The International Association of Forensic Toxicologists (TIAFT), Birmingham, UK, September 2-6, 2019.
 31. Rodriguez R., Centazzo N., **Concheiro M.** "Determination of methylone and its three major metabolites in rat brain by liquid chromatography-mass spectrometry". Poster presentation at the 2019 meeting of The International Association of Forensic Toxicologists (TIAFT), Birmingham, UK, September 2-6, 2019.
 32. Hanna J., de Castro A., Lendoiro E., Cruz-Landeira A., López-Rivadulla M., **Concheiro M.**, "Detection of In-Utero Ethanol Exposure via Ethyl Glucuronide and Ethyl Sulfate Analysis in Placenta". Oral presentation at the 2019 American Academy of Forensic Sciences meeting, Baltimore, MD February 18-23, 2019.
 33. 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.
 34. 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.
 35. 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.
 36. 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.
 37. 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*).
 38. 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*).
 39. 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.
 40. 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.
 41. 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.
 42. **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.
43. **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.
 44. **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.
 45. **Concheiro M.**, Lee D., Lendoiro E., Huestis 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.
 46. **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.
 47. **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.
 48. **Concheiro M.**, Gonzalez-Colmenero E., Lendoiro-Belio E., Concheiro-Guisan A., de Castro A., Cruz-Ladeira 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.
 49. **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.
 50. 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.
 51. **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.
 52. **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.
 53. **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.
 54. **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.

55. **Concheiro M.**, Shakleya D.M., Huestis M.A., "Comparison of placenta, umbilical cord, and meconium for detection of fetal buprenorphine exposure". Poster presentation at the NIDA International Forum, Reno, Nevada, USA, June 19-23, 2009.
56. **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.
57. **Concheiro M.**, Mon M., Cruz A., de Castro A., Quintela O., López-Rivadulla M., "Determinación de Etilglucuronido 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.
58. **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.
59. **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.
60. **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.
61. **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.
62. **Concheiro M.**, Cruz A., De Castro A., Quintela O., López-Rivadulla M., "Methodology and laboratory results". Oral presentation at the ROSITA II Mid-Project Meeting, Santiago de Compostela, Spain, November 12-13, 2004.
63. **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 electrosparry positivo, após previa extracção em fase sólida". Poster presentation at the 2º Congresso Nacional de Medicina Legal, Lisbon, Portugal, November 14-15, 2003.
64. **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 TALKS & SEMINARS

1. "High-Resolution Mass Spectrometry Screening in Forensic Toxicology". Invited talk at the TIAFT-SFTA joint webinar "Forensic, clinical and research applications of High Resolution Mass Spectrometry (HRMS)", online event, November 12, 2024.
2. "The impact of combined sewer overflows on pharmaceutical and illicit drug levels in New York/New Jersey waterways". Invited talk at the XXIII Brazilian Congress of Toxicology (CBTOX), Rio de Janeiro, Brazil, May 15-18, 2024.
3. "The art of hair analysis: techniques, challenges, and insights". Workshop the XXIII Brazilian Congress of Toxicology (CBTOX), Rio de Janeiro, Brazil, May 15-18, 2024.

4. "The impact of combined sewer overflows on pharmaceutical and illicit drug levels in New York/New Jersey waterways". Invited talk at the Chemistry webinar Series, Rutgers University, November 29, 2024.
5. "How does research in forensic toxicology get funded in the US? Mission (im)possible!". Invited talk at the 2023 online forensic symposium "Current Trends in Forensic Toxicology", May 8th, 2023.
6. "Mass spectrometry tools in forensic toxicology". TIAFT on-line lectures, <https://lnkd.in/eggUNNBu>, May, 2023.
7. "Smart sample preparation solutions for complex matrices and novel substances". Invited talk at the workshop "New drugs, new approaches" at the Society of Forensic Toxicologists (SOFT) meeting in Cleveland, OH, November 1, 2022.
8. "Sewage or wastewater to estimate the use of drugs of abuse in the population". Invited talk at the TIAFT Regional meeting "Ecuador 2020", November 25, 2021.
9. "Field application: urine analysis in forensic and clinical toxicology". Invited talk at the Autumn 2021 International Alliance of Clinical and Forensic Toxicologists (IACFT), November 3, 2021.
10. "Hair analysis: Challenges and opportunities". Invited talk at the workshop "It's Not All About Blood! Drug Analysis in Alternate Matrices" at the Society of Forensic Toxicologists (SOFT) meeting in Nashville, TN, October 27, 2021.
11. "Cannabis exposure during pregnancy: analytical methods and toxicological findings". Invited talk at the Eastern Analytical Symposium & Exposition, Plainsboro, NJ, November 18, 2019.
12. "Detection of neonatal exposure to ethanol and cannabis through umbilical cord analysis". Invited talk (Shimadzu Lunch & Learn) at Society of Forensic Toxicologists (SOFT) meeting in San Antonio, TX, October 15, 2019.
13. "Wastewater-based epidemiology of tobacco, prescription opioids and drugs of Abuse in NYC". Invited talk at the Science Department of the Borough of Manhattan Community College, CUNY, New York, NY, November 21, 2018.
14. "Databases in Forensic Toxicology". Invited talk at the Master of Forensic Sciences Seminar Series, John Jay College, CUNY, New York, NY, February 13, 2018.
15. "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*).
16. "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.
17. "The Challenge of New Psychoactive Substances in Forensic Toxicology". Invited talk at Queensborough Community College, New York, NY, October 30, 2015.
18. "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.
19. "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.
20. "Liquid Chromatography-High Resolution Mass Spectrometry Confirmation Methods". Invited talk (Thermo Scientific Lunch & Learn)) at the Society of Forensic Toxicologists (SOFT) meeting, Orlando, FL, October 28-November 1, 2013.
21. "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.
22. "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.

23. "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.
24. "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.

TEACHING

John Jay College, CUNY

Graduate Courses

2025-Present	FOS 796 Thesis Prospectus I
2023-Present	FOS 795 Thesis Prospectus I
2023-Present	FOS 797 Thesis Prospectus III
2021-Present	FOS 727 Case Analysis in Forensic Toxicology (Lecture)
2015-Present	FOS 725 Forensic Toxicology I (Lecture & Laboratory)
2015-Present	FOS 726 Forensic Toxicology II (Lecture & Laboratory)

Undergraduate Courses

2015-Present	FOS 402 Undergraduate Research Internship (Mentor)
2015	TOX 416 Analytical Toxicology (Laboratory)

Development of New Courses

- Clinical Toxicology (300 level), Toxicology Major.
- Introduction to Forensic Toxicology (400 level), Toxicology Major,
- Principles of Pharmacological Toxicology (400 level). Toxicology Major.
- Case Analysis in Forensic Toxicology (800 level). Master Program in Forensic Sciences.

University of Santiago de Compostela (Spain)

Undergraduate Courses

2004,2005, 2009-2011	Toxicology (Laboratory), Pharmacy School
2009, 2010	Industrial Safety and Hygiene (Lecture), Chemical Engineering School

DOCTORAL & MASTER THESIS ADVISING

1. Candidate: Malik Schoffner
Degree Sought: Master of Science in Forensic Science
Title: Development and Validation of an Analytical Method for the Determination of Tryptamines in Plasma by Liquid Chromatography-Tandem Mass Spectrometry
Defense Date: December 2024
Institution: John Jay College, CUNY
2. Candidate: Melissa Koffer
Degree Sought: Master of Science in Forensic Science
Title: Determination of Common Drugs of Abuse and Metabolites in Oral Fluid: Comparison of Different Extraction Procedures
Defense Date: May 2024
Institution: John Jay College, CUNY
3. Candidate: Bridget O'Leary
Degree Sought: Master of Science in Forensic Science
Title: Impact of Blood Preservatives and Anticoagulants on Cannabinoid Quantitative Analysis
Defense Date: May 2023
Institution: John Jay College, CUNY
4. Candidate: Emily Pagano
Degree Sought: Master of Science in Forensic Science
Title: Detection of Delta-9-Tetrahydrocannabinol and Cannabidiol In Utero Exposure by Umbilical Cord Analysis
Defense Date: May 2023
Institution: John Jay College, CUNY
5. Candidate: Christina Fernandez
Degree Sought: Master of Science in Forensic Science
Title: Comparison of Hydrolysis Efficiency and Performance of Four Recombinant β -Glucuronidase Enzymes for the Detection of Opioids in Urine Samples by LC-MS/MS
Defense Date: May 2023
Institution: John Jay College, CUNY
6. Candidate: Elizabeth Yulianto
Degree Sought: Master of Science in Forensic Science
Title: Quantification of Phosphatidylethanol in Whole Blood and Dried Blood Spots by LC-MS/MS
Defense Date: December 2022
Institution: John Jay College, CUNY
7. Candidate: Kevin Carrera
Degree Sought: Master of Science in Forensic Science
Title: Method Optimization for the Determination of Cannabinoids in Blood by Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS)
Defense Date: August 2022
Institution: John Jay College, CUNY
8. Candidate: Natalie Fernandez

Degree Sought: Master of Science in Forensic Science
Title: LC-MS/MS method for the detection and quantification of pharmaceuticals and drugs of abuse in New York City waterways
Defense Date: May 2022
Institution: John Jay College, CUNY

9. Candidate: Kayla E. Marschke
Degree Sought: Master of Science in Forensic Science
Title: Driving under the influence of drugs: Status in New York City and development of new analytical tools
Defense Date: May 2022
Institution: John Jay College, CUNY
10. Candidate: Tega Obruch-Akponah
Degree Sought: Master of Science in Forensic Science
Title: Impact of blood collection tubes in cannabinoid quantitative analysis
Defense Date: December 2021
Institution: John Jay College, CUNY
11. Candidate: Laura DeFreitas
Degree Sought: Master of Science in Forensic Science
Title: Development and validation of a method for the determination of designer benzodiazepines in hair by liquid chromatography tandem mass spectrometry (LC-MS/MS)
Defense Date: December 2021
Institution: John Jay College, CUNY
12. Candidate: Jada Alexis
Degree Sought: Master of Science in Forensic Science
Title: Cocaine, cocaethylene and ethanol in postmortem blood submitted to the New York City Office of Chief Medical Examiner
Defense Date: July 2021
Institution: John Jay College, CUNY
13. Candidate: Isaiah Jewell
Degree Sought: Master of Science in Forensic Science
Title: Investigation of postmortem methamphetamine cases submitted to the New York City Office of Chief Medical Examiner
Defense Date: July 2021
Institution: John Jay College, CUNY
14. Candidate: Natalia Platosz
Degree Sought: Master of Science in Forensic Science
Title: Identification and quantification of classic, prescription and synthetic opioids in hair by liquid chromatography tandem mass spectrometry (LC/MS/MS)
Defense Date: May 2020
Institution: John Jay College, CUNY
15. Candidate: Christie Cannarozzi
Degree Sought: Master of Science in Forensic Science
Title: Analysis of cannabinoids in serum by GC-MS/MS
Defense Date: May 2020

Institution: John Jay College, CUNY

16. Candidate: Melanie Goldstein
Degree Sought: Master of Science in Forensic Science
Title: Development of a screening method for drugs of abuse by direct analysis of dried urine spots coupled to mass spectrometry
Defense Date: July 2019
Institution: John Jay College, CUNY
17. Candidate: Victoria Mei
Degree Sought: Master of Science in Forensic Science
Title: Method development and validation for the determination of designer benzodiazepines in blood by LC-MS/MS
Defense Date: May 2019
Institution: John Jay College, CUNY
18. Candidate: Jasmine J. Gayle
Degree Sought: Master of Science in Forensic Science
Title: Determination of anxiolytic and antidepressant medicines in New York City wastewater samples
Defense Date: May 2019
Institution: John Jay College, CUNY
19. Candidate: Linda Kim
Degree Sought: Master of Science in Forensic Science
Title: Development and validation of a LC-MS/MS method for detection and quantification of 18 antidepressants in whole blood
Defense Date: May 2019
Institution: John Jay College, CUNY
20. Candidate: Sanghee Sarah Shin
Degree Sought: Master of Science in Forensic Science
Title: Developing and validating a fast and accurate method to quantify 18 antidepressants in oral fluid samples using SPE and LC-MSMS
Defense Date: May 2019
Institution: John Jay College, CUNY
21. Candidate: Theresa Marie Dawe
Degree Sought: Master of Science in Forensic Science
Title: Simultaneous determination of fourteen antipsychotic drugs in whole blood by solid phase extraction by liquid chromatography mass spectrometry
Defense Date: May 2019
Institution: John Jay College, CUNY
22. Candidate: Jiyoung Kim
Degree Sought: Master of Science in Forensic Science
Title: Detection of in utero cannabis exposure by umbilical cord analysis
Defense Date: December 2018
Institution: John Jay College, CUNY
23. Candidate: Rachel Chesser
Degree Sought: Master of Science in Forensic Science

Title: Analysis of synthetic opioids in postmortem blood, vitreous humor, and brain tissue

Defense Date: December 2018

Institution: John Jay College, CUNY

24. Candidate: Jennifer Hanna
Degree Sought: Master of Science in Forensic Science
Title: Detection of in-utero ethanol exposure via EtG and EtS analysis in umbilical cord and placenta
Defense Date: May 2018
Institution: John Jay College, CUNY
25. Candidate: Jeremy Peralta
Degree Sought: Master of Science in Forensic Science
Title: Identification and quantification of cyanide and its metabolites in lemur urine
Defense Date: Fall 2017
Institution: John Jay College, CUNY
26. Candidate: Alethea C. Jacox
Degree Sought: Master of Science in Forensic Science
Title: Quantitative analysis of opioids and cannabinoids in wastewater samples
Defense Date: May 2017
Institution: John Jay College, CUNY
27. Candidate: Jillian Wetzel
Degree Sought: Master of Science in Forensic Science
Title: Analysis of synthetic cannabinoids and drugs of abuse amongst HIV-infected individuals
Defense Date: December 2016
Institution: John Jay College, CUNY
28. Candidate: Briana Miller
Degree Sought: Master of Science in Forensic Science
Title: Determination of synthetic cathinones in oral fluid
Defense Date: August 2016
Institution: John Jay College, CUNY
29. Candidate: Elena Lendoiro
Co-Advisors: Ana de Castro, Oscar Quintela
Degree Sought: PhD
Title: Hair as alternative matrix to detect drug in utero drug exposure to drugs of abuse and medicines
Defense Date: November 2015
Institution: Universidad de Santiago de Compostela (Spain)

OTHER PROFESSIONAL ACTIVITIES

Associate Editor

- Associate Editor of the *Journal of Forensic Sciences*, official publication of the American Academy of Forensic Sciences, since September 2021.

- Associate Editor of *Frontiers in Chemistry*, since April 2021.

- Associate Editor-in-Chief of *Forensic Sciences Research*, January 2017- January 2021.
- Guest Associate Editor of *Frontiers in Chemistry*. Research Topic: Current Analytical Trends in Drug Testing in Clinical and Forensic Toxicology (2021).

Editorial Board Member

- Editorial Board Member of the *Journal of Forensic Sciences*, official publication of the American Academy of Forensic Sciences, since February 2021.
- Editor of *Forensic Sciences Research*, since January 2021.

Memberships & Committees in Scientific Organizations

- Standard Member of the International Association of Forensic Toxicologists (TIAFT) since 2004.
 - TIAFT Young Scientist Committee Member from November 2014 to August 2018.
 - TIAFT Board Member since September 2024.
- 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.
- Full Member of the Society of Forensic Toxicologists (SOFT) since 2012.
 - SOFT Mentoring Committee Member since 2020.
- Member of the Council of Forensic Science Educators (COFSE) since 2017.
 - COFSE Higher Education Committee Member from 2018 to 2021.
- Regular Member of the Northeastern Association of Forensic Scientists (NEAFS) since 2018.
- Member of the American Academy of Forensic Sciences (AAFS) since 2022 (previously Associate Member since 2019).

Peer Reviews

Average of 28 reviews per year since 2015. The reviews have been performed for the following journals (alphabetical order):

Academic Forensic Pathology; Analytical and Bioanalytical Chemistry; Analytica Chimica Acta; Bioanalysis; Biochemical Sciences; Biomedical Chromatography; Clinical Chemistry and Laboratory Medicine; Clinical Toxicology; Current Opinion in Environmental Science and Health; Current Pharmaceutical Design; Drug Testing and Analysis; Forensic Sciences Research; Forensic Science International; Frontiers in Chemistry; Journal of Analytical Toxicology; Journal of Forensic Sciences; Journal of Forensic and Legal Medicine; The Journal of Pediatrics; Journal of Pharmaceutical and Biomedical Analysis; Journal of Chromatography A; Journal of Chromatography B; Journal of Visualized Experiments; Rapid Communications in Mass Spectrometry; Science of the Total Environment; Therapeutic Drug Monitoring.