

Part A. PERSONAL INFORMATION

CV date 30/04/2023

First and Family name	Bermejo Barrera, Ana Maria		
Social Security, Passport, ID number		Age	
Researcher numbers	Researcher ID		
	Orcid code	0000 0002 1926 4546	

A.1. Current position

Name of University/Institution	Universidade de Santiago de Compostela		
Department	Institute of Forensic Science Luis Concheiro		
Address and Country			
Phone number		E-mail	anamaria.bermejo@usc.es
Current position	Professor of Toxicology	From	2007
Espec. cód. UNESCO	3214		
Palabras clave	Forensic toxicology, drugs of abuse. Chromatography		

A.2. Education

PhD	University	Year
PhD in Medicine	Universidade de Santiago de Compostela	1986

A.3. JCR articles, h Index, thesis supervised...

Research recognized periods (sexenios): 5, last period (01/01/2012-31/12/2017)

PhD: 18

JCR articles: 129

Part B. CV SUMMARY (max. 3500 characters, including spaces)

Professor of Toxicology from 2007 in the Universidade de Santiago de Compostela.

In the past Academic Secretary of Faculty of Medicine from 2002 to 2007. Actually, Secretary of Institute of Forensic Science USC from 2012.

On the other hand, the development and application of new analytical methods to determine and to control the drugs of abuse is another important task of the group research. In these areas 115 research articles has been published, 1 book chapter in international books. Principal research of 10 research projects, and different contracts with private companies and with the administration. Director of 18 PhD,

Member of the evaluation Committees of, ANECA from 2002 to 2007

Referee of more that 20 research journals and member and Revista de Medicina Española de Medicina Legal y de Adicciones (Elsevier).

Member of various scientific societies: AETOX, Socidrogalcohol, TIAFT

Part C. RELEVANT MERITS

C. PUBLICATIONS

Simultaneous determination of new generation antidepressants in plasma by gas- chromatography-mass spectrometry. Elisa Pietracchi; Ana Maria Bermejo; Iván Álvarez, Pamela Cabarcos, Walter Balduini and Maria Jesús Tabernero. **Forensic Toxicology** . 31(1):124-132 (2013).

Hygrine and cuscohygrine as possible markers to distinguish coca chewing from cocaine abuse in workplace drug testing. C. Rubio; S. Strano-Rossi; M.J. Tabernero ;L.Anzillotti; M.Chiarotti and A.M. Bermejo . **Forensic Sci. Int.** 227:60-63 (2013)

Application of Dispersive Liquid-Liquid Microextraction for the determination of Phosphatidylethanol in Blood by Liquid chromatography Tandem Mass Spectrometry. Pamela Cabarcos, José Ángel Cocho, Antonio Moreda, Martha Míguez, María Jesús Tabernero, Purificación Fernández, Ana María Bermejo,; **Talanta** 111:189-195 (2013).

Optimization of microwave-assisted extraction of analgesic and anti-inflammatory drugs from human plasma and urine using response surface experimental designs. Purificación Fernández¹, Ana M. Fernández², Ana M. Bermejo¹, Rosa A. Lorenzo^{3,*}, Antonia M. Carro. **J. of Separation Science** 36(8):1446-54 (2013).

Simultaneous determination of cocaine and opiates in dried bloods spots by electrospray ionization tandem mass spectrometry. Angel Antelo Domiguez; José Angel Cocho; María Jesús Tabernero, Ana María bermejo Pilar bermejo-Barrera and Antonio Moreda Piñeiro, **Talanta** 117 :235-241, (2013)

Direct tandem mass spectrometry for the simultaneous assay of opioids, cocaine and metabolites. Antonio Moreda; Pilar Bermejo-Barrera; Mara Otero-Fernández; José A Cocho; María J Tabernero; Ana M Bermejo. **Analytica Chimica Acta**, 784:25-32 (2013)

Screening for exogenous androgen anabolic steroids in human hair by liquid chromatography/orbitrap high resolution mass spectrometry.. Sabina Strano-Rossi, Erika Castrignanò; Luca Anzillotti; Sara Odoardi; Fabio De-Giorgio, PhD; Ana M Bermejo, PhD; Vincenzo L Pascali, PhD. **Analytica Chimica Acta**. **793**: 61-71(2013),

Matrix solid phase dispersion assisted enzymatic hydrolysis as a novel approach for cocaine and opiates isolation from human hair. Antonio Moreda-Pineiro, Ph.D; Martha Míguez-Framil; Pamela Cabarcos; María J Tabernero, PhD; Ana M Bermejo, PhD; Pilar Bermejo-Barrera, PhD. **Journal of Chromatography A** 1316:15-22 (2013).

ANCA Positive vasculitis induced by levamisole-adulterated cocaine and nephritic syndrome: The kidney as an unusual target. Hotensia Álvarez Diaz; Ana Isabel Mariño Gallego; José Francisco García Rodríguez; Inmaculada Gómez Buela and Ana Maria Bermejo Barrera. **American Journal of Case Report**, 14: 557-561 (2013).

Application of hygrtine and cuscohygrine as posible markers to distinuish coca chewing from cocaine abuse on WDT and forensic cases. C. Rubio; S. Strano-Rossi; M.J. Tabernero ;L.Anzillotti; M.Chiarotti and A.M. Bermejo **Forensic Sci. Int** 243: 30-34 (2014)

Prenatal alcohol exposure and its repercussion on newborns. A. Baña; M.J.Tabernero; A.Pérez-Muñizuri; S. López-Suarez; P.Cabarcos; A. Bermejo; J.M. Fraga and M.L. Couce. **Journal of Neonatal-Perinatal Medicine** 7: 47-54 (2014)

An improved method for the determination of <DELTA>9-tetrahydrocannabinol, cannabinal and cannabidiol in hair by liquid chromatography-tandem mass spectrometry. Martha Míguez-Framil, José Ángel Cocho, María Jesús Tabernero, Ana María Bermejo, Antonio Moreda-Piñeiro, Pilar Bermejo-Barrera¹ **Microchemical Journal** 117:7-17 (2014).

Quantification of fatty acid ethyl esters (FAEE) and ethyl glucuronide (EtG) in meconium for detection of alcohol abuse during pregnancy. Correlation study between both biomarkers. Pamela Cabarcos; María Jesús Tabernero; José Luís Otero; Martha Míguez; Ana María Bermejo; Simona Martello; Nadie De Giovanni; Marcello Chiarotti. **Journal of Pharmaceutical and Biomedical Analysis** : 100:74-78 (2014)

Rapid determination of quetiapine in blood by GC/MS. Application to post-mortem cases. Olga López-Guarnido, María Jesús Tabernero, Antonio F. Hernández, Lourdes Rodrigo and Ana M. Bermejo. **Journal of Applied Toxicology** , 34(10):1104-1108 (2014).

Analysis of drugs of abuse in human plasma by dispersive liquid-liquid microextraction and high-performance liquid chromatography. P Fernández; M. Regenjo; A.M.Bermejo; A.M.Fernández; R.A, Lorenzo and A.M. Carro. **Journal of Applied Toxicology**, 35:418-425 (2015)

Alcohol's influence on violent deaths. Alberto Fernández Liste; Maria Jesús Tabernero; Ana María Bermejo.: **International Journal of Forensic Science & Pathology (IJFP)**. 3(4):105-109 (2015).

Determination of direct alcohol markers: a review. P. Cabarcos; I. Alvarez MJ. Tabernero and AM Bermejo. **Analytical and Bioanalytical Chemistry** 407:4907-4925 (2015).

Porous membrane-protected molecularly imprinted polymer micro-solid-phase extraction for analysis of urinary cocaine and its metabolites using liquid chromatography- - tandem mass spectrometry
Antonio Moreda-Pineiro, Ph.D; Juan Sánchez-González; María J Tabernero; Ana M Bermejo; Pilar Bermejo-Barrera. **Analytica Chimica Acta** : 898: 50-59 (2015)

Synthesis and characterization of novel molecularly imprinted 1 polymer – coated 2 Mn-doped ZnS quantum dots for specific fluorescent recognition of cocaine. María Pilar Chantada-Vázquez, Juan Sánchez-González, Elena Peña-Vázquez, María Jesús Tabernero, Ana María Bermejo, Pilar Bermejo-Barrera, Antonio Moreda-Piñeiro. **Biosensors and Bioelectronics** 75:213-221 (2016).

Development of magnetic molecularly imprinted polymers for solid phase extraction of cocaine and metabolites in urine before high performance liquid chromatography – tandem mass spectrometry. Juan Sánchez-González^a, María Jesús Tabernero^b, Ana María Bermejo^b, Pilar Bermejo-Barrera^a, Antonio Moreda-Piñeiro^a. **Talanta**: 147: 641-649 (2016)

A simple and sensitive molecularly imprinted polymer – Mn-doped ZnS quantum dots based fluorescence probe for cocaine and metabolites determination in urine. Chantada-Vázquez, Maria; Sánchez-González, Juan; Peña-Vázquez, Elena; Tabernero, Maria; Bermejo, Ana; Bermejo-Barrera, Pilar; Moreda-Piñeiro, Antonio. **Anal. Chem.** 88: 27-34, (2016).

Solid-phase microextraction and gas chromatography – mass spectrometry methods for residual solvent assessment in seized cocaine and heroin. Pamela Cabarcos; Paloma Herbello Hermelo; Iván Ivarez Freire; Antonio Moreda Piñeiro; María Jesús Tabernero; Ana María Bermejo and Pilar Bermejo Barrera. **Analytical and Bioanalytical Chemistry** 408:6393-6402 (2016)

Cannabinoids assessment in plasma and urine by high performance liquid chromatography – tandem mass spectrometry after molecularly imprinted polymer microsolidphase extraction. Juan Sánchez-González, Rocío Salgueiro Fernández, Pamela Cabarcos, Ana María Bermejo, Pilar Bermejo Barrera, Antonio Moreda-Piñeiro. **Analytical and Bioanalytical Chemistry** : 409:1207-1220, (2017).

Development and application of molecularly imprinted polymer – Mn-doped ZnS quantum dot fluorescent optosensing for cocaine screening in oral fluid and serum. María Pilar Chantada-Vázquez, Carolina de-Becerra-Sánchez, Alba Fernández-del-Río, Juan Sánchez-González, Ana María Bermejo, Pilar Bermejo-Barrera and Antonio Moreda Piñeiro. **Talanta**, 181:232-238, (2018).

Determination of benzodiazepines in pericardial fluid by gas chromatography-mass spectrometry. Iván Álvarez: Pietro Brunetti, Pamela Cabarcos Fernández, Alberto Fernández Liste, María Jesús Tabernero, A. M. Bermejo. **Journal of Pharmaceutical and Biomedical Analysis** : 159: 45-52 (2018)

HPLC-MS/MS combined with membrane protected – molecularly imprinted polymer micro-solid-phase extraction for synthetic cathinones monitoring in urine. Juan Sánchez-González; Sara Odoardi; Ana María Bermejo; Pilar Bermejo-Barrera; Francesco Saverio Romolo; Antonio Moreda-Piñeiro y Sabina Strano-Rossi. **Drug Testing and Analysis** , 11: 33-44 (2019)

NMR spectroscopy for assessing cocaine-functional monomer interactions when preparing molecularly imprinted polymers. Pilar Bermejo-Barrera, A. Bermejo, Angeles Peña-Gallego, Antonio Moreda-Piñeiro, Jesus Sanmartin Matalobos, Juan Sánchez González. **Microchemical Journal** , 147:813-817 (2019)

Genetic susceptibility in pharmacodynamic and pharmacokinetic pathways underlying drug-induced arrhythmia and sudden unexplained deaths. Marina Martínez-Matilla, A. Bermejo, Alejandro Blanco-Verea, Angel Carracedo, Eva Ramos, Francesca Brisighelli, Francisco Lotufo-Neto, Juan Ansedo-Bermejo, Mario Paramo, Mario Hirata, María Brion, Montserrat Santori, Rocio Gil. **Forensic. Science International** , 42: 203-212, (2019)

The probability to detect cocaine, methylecgonine, cinnamoylcocaine, hygrine and cuscohygrine in urine samples of coca leaves chewers after six years. Nelida Rubio, Antonio Moreda-Piñeiro, Iván Álvarez Freire, Bermejo-Barrera Pilar, María-Jesús Tabernero-Duque, A. M. Bermejo. **Microchemical Journal** 151 (2019).

Duration of detection of cocaine and metabolites in hair after discontinuation of abuse. A. Suarez Garcia; I. Álvarez Freire; A.M. Bermejo; P. Cabarcos Fernández and M.J. Tabernero Duque. **Microchemical Journal** : 153 (2020) *Duration of detection of cocaine and metabolites in hair after discontinuation of abuse.* A. Suarez Garcia; I. Álvarez Freire; A.M. Bermejo; P. Cabarcos Fernández and M.J. Tabernero Duque. **Microchemical Journal**: 153:104335 (2020)

Determination of Seven Antidepressants in Pericardial Fluid by Means of Dispersive Liquid-Liquid Microextraction and Gas Chromatography-Mass Spectrometry. P. Cabarcos-Fernández, M.J. Tabernero-Duque, I. Álvarez-Freire and A.M. Bermejo-Barrera. **Journal of Analytical Toxicology**: 00: 1-10 (2021)

Determination of Levetiracetam in plasma. Comparison of Gas-Chromatography-Mass Spectrometry technique and Abbot® Architect system. I. Álvarez Freire; T. Marques Rodrigues; A.M. Bermejo Barrera; P. Cabarcos Fernández and M.J. Tabernero. **Microchemical Journal**:160:105715 (2021)

Quantitative determination of Clozapine in plasma using an environmentally friendly technique. P. Cabarcos-Fernández*, I. Álvarez-Freire, M.J. Tabernero-Duque, A.M. Bermejo-Barrera. **Microchemical Journal**; 180: 107612(2022)

Sexual Assault: Approach to reality in the area of Santiago de Compostela (Galicia-Spain) through a 12-year retrospective study. P. Cabarcos-Fernández; M.J. Tabernero-Duque; I. Álvarez-Freire; A.M. Bermejo-Barrera. **Journal of Analytical Toxicology**. 46: 218-222 (2022)

Isolation and quantification of synthetic cannabinoids in human urine using membrane-assisted solvent extraction followed by liquid chromatography-tandem mass spectrometry. Cristian Suárez-Oubiña, Iván Álvarez-Freire, Pamela Cabarcos, Ana María Bermejo, Pilar Bermejo-Barrera¹, Antonio Moreda-Piñeiro. **Analytical Methods** 15: 333-342 (2023)

"Statistical Analysis of Toxicological Data of Victims of Traffic Accidents in Galicia (Spain). Iván Álvarez Freire, Olga López Guarido; Pamela Cabarcos fernández; Manuel Couce Sanchez; Ana Maria Bermejo Barrera and Maria Jesús Tabernero Duque.**Prevention Science (in press)**

"Ultrasound assisted membrane-assisted solvent extraction as a fast procedure for the simultaneous assessment of some drug-facilitated sexual assaults in urine by liquid chromatography-tandem mass spectrometry" **Journal of Chromatography A**

Simple method for the determination of thc and thc-cooh in human postmortem blood samples by gas chromatography /mass spectrometry. Ivan Alvarez-Freire, Anxa Valeiras-Fernández, Pamela Cabarcos Fernández, Ana María Bermejo Barrera, María Jesús Tabernero-Duque. **Molecules**

Synthetic cathinones determination by liquid chromatography- mass spectrometry after ultrasound membrane assisted extraction. Cristian Suárez-Oubiña¹, Pamela Cabarcos², Maria Jesús Tabernero² Pilar Bermejo-Barrera¹, Antonio Moreda-Piñeiro¹, Ana María Bermejo. **Microchemical journal in press**

2. Research projects and grants (selected)

JUST/2014/ACTION GRANTS. PRIDE - Profiling Relation In Drug trafficking in Europe. European Commission, Directorate-General Justice, Università Cattolica del Sacro Cuore(Rome,Italy),Università de la Sapienza (Roma,Italy),Universidade de Santiago de Compostela, IP in the Universidade de Santiago de Compostela. 01/12/2015-30/11/2017. 133.549,7 €.

JUS/2011/ISEC/DRUGS/AG/3670. Tracking Drug Trafficking (TDT), European Commission, Directorate-General Justice, JUST/2011-2012/ACTION GRANTS. Università Cattolica del Sacro Cuore, Roma (Italy), Universidade de Santiago de Compostela, IP of the Universidade de Santiago de Compostela, 01/01/2012-30/11/2015. 156.034,63 €.

C.5. Institutional responsibilities

Academic Secretary of Faculty of Medicine from 2002 to 2008

Member of Doctorate commission from 2007 to 2010

Secretary of Institute of Forensic Science USC from 2012

C.6.Memberships of Scientific Societies

Sosidrogalcohol (Spain),

AETOX (Spain)

C.7. Conferences and courses 80 communications in national and international conferences and courses. Chairperson in two conferences, and member of the Scientific Committees of 12 conferences.