CURRICULUM VITAE ABREVIADO (CVA)

***IMPORTANT** – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.*

Prof MARCOS PÉREZ LÓPEZ

Part A. PERSONAL INFORMATION

A.1. Current position

Position	Full Professor			
Initial date	26/03/2003			
Institution	University of Extremadura			
Department/Center	Animal Health	Faculty of Veterinary		
Country	Spain		Teleph. number	-
Key words	Veterinary, toxicology, ecotoxicology, biomarkers, contaminants			

A.2. Previous positions (research activity interuptions, indicate total months)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
European doctorate	University of Santiago de Compostela / Spain	1999
Doctorate	University of Santiago de Compostela / Spain	1999
Degree in Veterinary	University of Santiago de Compostela / Spain	1992

(Include all the necessary rows)

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Graduated from the University of Santiago de Compostela (1992), my research work began with a grant from the Caixa Galicia Foundation, helping me to develop the main activity of my Thesis at the Institut de la Recherche Agronomique (INRA) of Toulouse (France), under the supervision of Dr. Jean Pierre Cravedi. This activity focused on the identification of biomarkers that could help to indicate early the harmful effect of chemical agents in aquatic ecosystems, using both in vivo and in vitro approaches. This activity has been maintained, actively, in recent years. After obtaining my doctorate (1999), the professional career continued with several national and international stays, in which two different aspects were developed (Clinical and Environmental Toxicology). As a consequence, different works and posters / conferences have been prepared, along with the creation of registered patents, always within the University of Santiago de Compostela. In 2003, I joined the University of Extremadura as a full professor, integrating myself completely into the receiving work group, where I obtained for the first time the direction of a regional research project (2PR04A021), related to the identification of a set of biomarkers of contamination in aquaculture populations, as an ecotoxicological work tool. The preparation of numerous scientific publications and the supervision of a doctoral thesis would only be the beginning of years of intense activity. This aspect was strengthened with the concession of national collaboration projects, subsidized by the Ministry of Education and Science (Code CTM2007-60041) and by the Spanish Agency for International Cooperation (ref. A / 015933/08 and A / 024757/09). All these projects involved an in-depth search and knowledge of biomarkers of contamination, leading back to doctoral thesis, undergraduate thesis, scientific publications and communications to congresses that can be verified in the CV. It should be emphasized that this activity has been perfectly combined with that developed by other members of the team, who focused more on the chemical determination of environmental pollutants, all together allowing the achievement of other scientific projects in which I actively participated as a member of the team. This fact is associated with the realization of several research stays, some already mentioned, the last one in Italy, South Africa and the USA, where I returned to contact with the field of in vitro toxicology and the evaluation of the effects generated by environmental pollutants, mainly endocrine disruptors. In this sense, two different

scientific articles have recently been presented for publication, considering this line of action of in vitro evaluation and environmental toxicology, something that is currently being strengthened by the direction of a doctoral thesis related to the evaluation of in vitro effects. vitro for organic pollutants (also two papers submitted for publication). I also wish to highlight my work in the achievement of numerous contracts with public and private administrations since my incorporation to the Cáceres Toxicology Unit, by applying my knowledge and skills in carrying out analytical and standardized toxicity tests, in accordance with the OECD standards. Moreover, I contributed to the formation of 8 doctorate students, not only from Spain, but also from Tunisia and Italy (this last thesis will be defended in brief), all of them related to biomarkers of environmental relevance as well as to different aspects of veterinary toxicology, in accordance with my present position. Member of different scientific associations (namely, Spanish Association of Toxicology, Galician Group of Specialist in Wildlife, or the Iberoamerican Society of Contamination and Environmental Toxicology), I have been invited by different congress committees and associations to exhibit my work in both national and international events (the last one, into the National Veterinary Congress of Italy, in 2021). Moreover, as it can be observed on the CV; I have contributed not only with international papers related to my research activities, but also with many papers written in Spanish, and published in national Journals, with a wide dispersion among national professionals.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

1. Pérez-Vegas, A.; **Pérez-López, M.;** Barcala, E.; Romero, D.; Muñoz, P. (2023). Organochlorine residues in muscle of European eels (*Anguilla anguilla*) from four Spanish Mediterranean wetlands and coastal lagoons. *Marine Pollution Bulletin* 18: 114408-114417.

2. Sidi-Ikhlef, A.; Ziani, K.*, Kahloula, K.; Mokhtar, M.; Djallal Eddine Houari, A.; **Pérez-López, M**.; Hachem, K. (2022). Health risk assessment of the effect of two cooking methods (boiling and grilling) on the contents of some potentially toxic elements in beef meet consumed by the Algerian population. *Fresenius Environmental Bulletin* 31(12): 11623-11632.

3. Barrales, I.; Hernández-Moreno, D.; Fidalgo, L.E.; López-Beceiro, A.; Martínez, S.; Sánchez-Montero, L.; Míguez, M.P.; Soler, F.; **Pérez-López, M.** (2021). Levels of zinc, cadmium, and lead in liver, kidney, and feathers of Atlantic puffins (*Fratercula arctica*) from Spain. *Toxicological and Environmental Chemistry* 103(1): 104-117.

4. Hoseini, S.M.; Namroodi, S.; Zaccaroni, A.; Sayad, A.; **Pérez-López, M.;** Soler, F. (2020). Detection of carcinogenic polycyclic aromatic hydrocarbons in stranded Caspian seals (*Pusa caspica*). *Aquatic Mammals* 46(1): 58-66.

5. González-Gómez, X.; Simal-Gándara, J.; López Beceiro, A.M; Fidalgo, L.E.; **Pérez-López, M.**; Martínez-Carballo, E. (2020). Non-invasive biomonitoring of organic pollutants using feather samples in feral pigeons (*Columba livia domestica*). *Environmental Pollution* 267: 115672-115688.

6. Kaddour, Z., Hernández-Moreno, D.; Khaledd, B.M.; Soler, F.; Míguez, P.; **Pérez-López, M.** (2021). Quantification of porphyrin profiles as biomarkers for lead exposure in rabbit excreta. *Fresenius Environmental Bulletin* 30(04): 4276-4283.

7. Martínez-Morcillo, S.; **Pérez-López, M**.; Soler, F.; González, A. (2019). The organophosphorus pesticide dimethoate decreases cell viability and induces changes in different biochemical parameters of rat pancreatic stellate cells. Toxicology in Vitro 54: 89-97.

8. Vizuete, J.; **Pérez-López, M.;** Míguez-Santiyán, M.P.; Hernández-Moreno D. (2019). Mercury (Hg), lead (Pb), cadmium (Cd), selenium (Se) and arsenic (As) in liver, kidney and feathers of gulls: a review. *Reviews of Environmental Contamination and Toxicology* 247: 85-146.

9. Nardiello, V.; Fidalgo, L.E.; López-Beceiro, A.; Bertero, A.; Martínez-Morcillo, S.; Míguez, P.; Soler, F.; Caloni, F.; **Pérez-López, M**. (2019). Metal content in liver, kidney and feathers of Northern gannets, Morus bassanus, sampled on the Spanish coast. *Environmental Science and Pollution Research* 26: 19646-19654.

10. Martínez-Morcillo, S.; **Pérez-López, M.;** Míguez, M.P.; Valcárcel, Y.; Soler, F. (2019). Comparative study of esterase activities in different tissues of marine fish species *Trachurus trachurus*, *Merluccius merluccius* and *Trisopterus luscus*. *Science of the Total Environment* 679: 12-22.

C.1. Publications *(Book chapter).*

1. Sánchez-Montero, L.; **Pérez-López, M.;** Soler Rodríguez, F. "Tetranitromethane". Encyclopedia of Toxicology Volume 4 (Fourth edition). *Elsevier Inc., Academic Press*, 2023. ISBN: 978-0-12-824315-2. Accepted, in press.

2. Pérez-López, M.; Soler Rodríguez, F.; Giuleme, O.; Paschos, P. "Methylenedianiline and its dihydrochloride". Encyclopedia of Toxicology Volume 3 (Third edition). pp 285-288. *Elsevier Inc., Academic Press*, 2014. ISBN: 978-0-1238-6454-3.

3. de la Casa Resino, I.; **Pérez-López, M**.; Soler Rodríguez, F. "Methyl methacrylate". Encyclopedia of Toxicology Volume 3 (Third edition). pp 314-317. *Elsevier Inc., Academic Press*, 2014. ISBN: 978-0-1238-6454-3.

4. Pérez-López, M.; González, A. "The Three R's Principle: Replacement, Reduction, and Refinement" (original in Spanish). Manual Básico para usuarios de animales en la experimentación en Ciencias Biomédicas, pp 25-40. Ed. Librería Técnica Universitaria Figeroa, 2015. ISBN: 978-84-606-8032-1.

5. Melgar Riol, M.J.; Soler Rodríguez, F.; **Pérez-López, M.** "Personalized tutorials in the EHEA: learning Veterinary Toxicology in a group" (original in Spanish). FECIES 2012 (book of chapters of the IX International Forum on Evaluation of the Quality of Research and Higher Education). pp 955-959. Ed. Asociación Española de Psicología Conductual, 2013. ISBN-13: 978-84-695-6734-0.

6. Soler Rodríguez, F.; **Pérez-López, M**.; Hernández Moreno, D. "Effects of pesticides on ghouls" (original in Spanish). Actas del I Seminario sobre aves necrófagas de Andalucía. De la alerta sanitaria a la gestión integrada. pp 33-44. Ed. Consejería de Medio Ambiente, Junta de Andalucía. Córdoba, 2011. Legal deposit: CO-483-2011.

C.2. Congress

1. A. Pérez-Vegas, **M. Pérez-López,** E. Barcala, E. Trofimova, D. Romero, P. Muñoz. "Organochlorine pesticides and PCBs in European eel (*Anguilla anguilla*) from Spanish Balearic coastal lagoons*". 56th Congress of the European Society of Toxicology (EUROTOX 2021)-20th International Conference on Diseases of Fish and Shellfish*, Copenhagen (Denmark), Sep 2021.

2. S. Martínez-Morcillo, **M. Pérez-López**, Y. Valcárcel, F. Soler, M.P. Míguez. "Metal determination (Zn, Cu, Cd and Pb) and integration of oxidative stress biomarkers in fish and bivalve species from North-Western coast of Spain". *2nd International Conference on Risk Assessment of Pharmaceuticals in the Environment (ICRAPHE).* Barcelona (Spain), Nov 2019.

3. S. Martínez-Morcillo, J. Vizuete, D. Hernández-Moreno, L.E. Fidalgo, A. López-Beceiro, M.P. Míguez, **M. Pérez-López**. "Hepatic biomarkers: enzymatic activity for assessment of organophosphorus exposure on seagull (*Larus michaellis*)". *Xth International Symposium on Wild Fauna (ISoWIF 2017).* Vila Real (Portugal), Sept 2017.

4. S. Martínez-Morcillo, L. Fidalgo, A. López Beceiro, M. Míguez, F.Soler, **M. Pérez-López**, "Liver and muscle esterases as biomarkers of exposure to organophosphate pesticides in red-legged gull *Larus michahellis* (Naumann, 1840) from the North West coast of Spain". *EUROTOX 2016,* Sevilla (Spain), Sept 2016.

5. R. Türkmen, L.E. Fidalgo, A. López-Beceiro, **M. Pérez-López**, D. Hernández-Moreno, F. Soler, M.P. Míguez. "POPs in fat tissue of wild boars (*Sus scrofa* L.) from Galicia (NW Spain): health risk". 2nd *International Congress of Forensic Toxicology.* Ankara (Turkey), May 2016.

6. M.P. Míguez; J. Vizuete; D. Hernández-Moreno; L.E. Fidalgo; A. López-Beceiro; **M. Pérez-López**. "Oxidative stress biomarkers in liver and kidney of yellow-legged gulls". *10th Iberian and 7th Iberoamerican Congress on Environmental Contamination and Toxicology (CICTA 2015).* Vila Real (Portugal), July 2015.

7. A.L. Oropesa; J.J. Chaves Galeano; **M. Pérez-López;** F. Soler. "In vivo and in vitro effects of anticholinesterase agents on acetylcholinesterase activities of different rabbit tissues". *10th Iberian and 7th Iberoamerican Congress on Environmental Contamination and Toxicology (CICTA 2015).* Vila Real (Portugal), July 2015.

8. I. de la Casa-Resino, A. Castellano, **M. Pérez-López**, F. Soler. "Organochlorines and antioxidant defenses in plasma of white stork (*Ciconia ciconia*) nestlings from Extremadura,

Spain". *34th International Symposium on Halogenated Persistent Organic Pollutants (DIOXIN 2014).* Madrid (Spain), Sept 2014.

9. E. Calaco, A. Ramos, **M. Pérez-López**, M.P. Míguez. "Oxidative stress parameters as biomarkers of organophosphorous exposure in kidney of rabbit" *REDOX Signaling and Oxidative Stress in Health and Disease (IV Spanish and Portuguese Meeting on Free Radicals).* Valencia (Spain), June 2012.

10. M. Pérez-López, A.R. Maia, D. Hernández-Moreno, F. Soler, A. López Beceiro, L. Llaneza. "Biomonitoring in Ecotoxicology: influence of gender and age on heavy metal content in different organs of Iberian wolf (*Canis lupus signatus spp*)". *International Congress on Environmental Health ICEH.* Lisbon (Portugal), May 2012.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. Mineral profile of different matrices related to dairy sheep / goats from Extremadura and study of the transfer of mineral elements between these matrices. Consejería de Economía e Infraestructuras de la Junta de Extremadura. IP: M.P. Míguez Santiyán. (University of Extremadura). 01/06/2017-30/06/2020. 91,511.2 €.

2. PI14/00516. Drugs as Priority Pollutants: toxicological and environmental effects. Ministerio de Economía y Competitividad, ISCIII. IP: Yolanda Valcárcel. (University Rey Juan Carlos – University of Extremadura). 01/01/2015-31/12/2017. 79,250 €.

3. Food safety and chemical contamination: study of organic and inorganic contaminants in big game meat. Consejería de Economía, Competitividad e Innovación. IP: Francisco Soler. (University of Extremadura). 31/07/2014-30/07/2016. 49,799.2 €.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

1. Analysis of Organochlorine residues in muscular tissues of fish (ref 311/21). University of Murcia. Nov 2021-Feb 2022. 9,600 € (renewed in February -ref 088/22, 1,248 €- and in May -ref 151/22, 2,650 €-).

2. Analysis and samples related to its content in heavy metals and organic pollutants (ref 159/21). IP. FATRO S.L. May-June 2021. 4,800 €.

3. Analysis of samples related to the determination of chlorinated contaminants in eel muscle tissue (ref 079/20) IP. University of Murcia. May-July 2020. 4,589 €.

4. Project "Inmunicor": selenium in sheep production. IP. July 2018-June 2019. Ovine Cooperatives from Extremadura. 3,840 €.

5. Determination of toxicological processes in wildlife. IP: Francisco Soler. Government of Extremadura (ref 087/17). May-Dec 2017. 7,438.02 €.

6. Toxicological analysis of 40 biological samples (ref 078/16). University of Santiago de Compostela. IP: Marcos Pérez. April-May 20106. 1,555.56 €.

7. Toxicological analysis of samples from suspected poisonings of domestic and wild fauna of the Principality of Asturias (ref 058/16). IP: Marcos Pérez. April-June 2016. 840 €.

8. Toxicological analysis of samples from suspected poisonings of domestic and wild fauna of the Principality of Asturias (ref 029/16). IP: Marcos Pérez. March 2016. 560 €.

9. Determination of toxicological processes in wildlife. IP: Francisco Soler. Government of Extremadura (ref 128/15). May-Dec 2017. 7,438.02 €.

10. Analysis of samples from the Galician plan to fight poisoning in the wild. Tecnología y Servicios Agrarios S.A. Ref 075/14. April-May 2015 2,100 €.