



Part A. PERSONAL INFORMATION

CV date	14/12/2020
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First and Family name	María Martínez Valladares		
Social Security, Passport, ID number	71422913R	Age	42
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0002-3723-1895	
	SCOPUS Author ID (*)	8718570100	
	WoS Researcher ID (*)	L-5020-2017	

(*) Optional (**) Mandatory

A.1. Current position

Name of University/Institution	Universidad de León		
Department	Animal Health. Instituto de Ganadería de Montaña and Facultad de Veterinaria		
Address and Country	Grulleros. León. 24346.		
Phone number	620771412	E-mail	mmarva@unileon.es
Current position	Ramón y Cajal contract	From	01/01/2017
Key words	Helminths, anthelmintics, anthelmintic resistance, ruminants, diagnosis		

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD in Veterinary Science	University of León	31/01/2007
Licensed in Veterinary Science	University of León	01/10/2001

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

- Number of supervised PhD thesis (last 10 year): 5 (Sobresaliente *Cum Laude*) and 4 in progress.
- JCR articles: 59 (Mean Impact Factor: 2.3); Total amount of publications in the first quarter (Q1): 39
- Total citation number: 658 (WOS); Average number of citations/year during the last 5 years: 83
- H index: 16 (WOS)

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

Doctor in Veterinary Medicine at the University of León in 2007. From 2005 to 2008 I worked as Clinical Investigator at the Regulatory Affairs Department in the veterinary pharmaceutical company Laboratorios Ovejero S.A.

In September 2009, I got the JAE-Doc Fellow for three years, a Junior postdoctoral position (Spanish National Research Council, CSIC), at the Mountain Livestock Institute (Instituto de Ganadería de Montaña) where I continue working. In 2016 I got the Ramón y Cajal Fellow for 5 years, a Senior postdoctoral position (Spanish Ministry of Economy and Competitiveness).

I had several Postdoctoral stays abroad for 13 months at Moredun Research Institute (UK) and Faculties of Veterinary Medicine of the Universities of Ghent (Belgium) and Dublin (Ireland).

I have co-supervised 5 Doctoral Theses and currently I am supervising 4 more. Also I have supervised 7 research projects for Master's Degrees and 5 for Graduate's Degree. I am the supervisor of a "Juan de la Cierva" contract (FJC2018-038305-I).

I am the author of 59 SCI publications, being the first author in 18 of them, the last author in 18 and the second author in 6. I have participated with more than 80 contributions in national and international congresses. I have participated in 15 research projects funded in competitive calls (3 as Principal Researcher) and in 10 research contracts with companies (1 as Principal Researcher).

I was reviewer of two research projects of the Galician Plan for Research, *Development and Technological Innovation of the Xunta de Galicia*, one of the Institut National de la Recherche Agronomique (INRA, France) and one the National Agency for Scientific and Technological Promotion from Argentina. I have evaluated more than 50 manuscripts submitted to SCI Journals: Parasites and Vectors, Veterinary Parasitology, BMC Veterinary Research, Journal of Veterinary Pharmacology and Therapeutics, Small Ruminant Research and Experimental Parasitology.



I participated in "research and development activities" as "Empirical International Fair 2010" and the "CSIC Science Week" as well as organizing and giving the "Course on control of parasitic diseases of sheep in Spain". Also, I was member of the Scientific and Organizer Committee of the International Conference on "Global Challenges in Neglected Tropical Diseases", León (Spain) on July, 2016.

Prizes: Campus entrepreneur initiative competition. Red T-Cue Awards, First Winner, SOLPAX, Category: Business Project. 10,000 € (2016); Third Edition "Illustrious College of Veterinarians of Leon, Academy of Veterinary Sciences of Castile and Leon", first award for the project "Infections by gastrointestinal nematodes in sheep. New methods for the control of anthelmintic resistance". 1,500 € (2016); international recognition: "Peter Nansen Young Scientist Award" granted by World Association for the Advancement of Veterinary Parasitology <https://www.waavp.org/page/Peter+Nansen+Young+Scientist+Award/24/#.X9cSK9hKJIU>. In 2020 I was awarded as academic of the Spanish Young Academy (<https://academiajuven.es/>) by a competitive selection process, being the only veterinarian who is up to date.

My principal research is based on the study of methods for the control of helminth infectious, mainly in ruminant. Under this context I am focused on the study of anthelmintic resistance phenomenon including new methods its early detection, mechanisms involved in its development and new strategies to avoid its spread.

Part C. RELEVANT MERITS

C.1. Publications (including books)

- **M. MARTÍNEZ VALLADARES**, E. VALDERAS-GARCÍA, J. GANDASEGUI, P. SKUCE, A. MORRISON, V. CASTILLA GÓMEZ DE AGÜERO, M. CAMBRA-PELLEJÀ, R. BALAÑA-FOUCE, F.A. ROJO VÁZQUEZ. 2020. *Teladorsagia circumcincta* Beta Tubulin: The Presence of the E198L Polymorphism on its own is associated with benzimidazole resistance. *Parasites and Vectors*. 13, 453. (Q1) (9/39).
- N. ESCALA, E. VALDERAS-GARCÍA, M. ÁLVAREZ BARDÓN, V. CASTILLA GÓMEZ DE AGÜERO, R. ESCARCENA, J.L. LÓPEZ-PÉREZ, F.A. ROJO-VÁZQUEZ, A. SAN FELICIANO, R. BALAÑA-FOUCE, **M. MARTÍNEZ-VALLADARES***, E. DEL OLMO. Synthesis, bioevaluation and docking studies of some 2-phenyl-1H-benzimidazole derivatives as anthelmintic agents against the nematode *Teladorsagia circumcincta*. *European Journal of Medicinal Chemistry*. 2020. 7;208:112554. (Q1) (5/61).
- CEBALLOS L, CANTON C, PRUZZO C, SANABRIA R, MORENO L, SANCHIS J, SUAREZ G, ORTIZ P, FAIRWEATHER I, LANUSSE C, ALVAREZ L, **MARTINEZ-VALLADARES M**. The egg hatch test: A useful tool for albendazole resistance diagnosis in *Fasciola hepatica*. *Veterinary Parasitology*. 2019; 271, 7-13. (Q1) (22/141).
- MYRIAM ESTEBAN-BALLESTEROS, FRANCISCO A. ROJO-VÁZQUEZ, PHILIP J. SKUCE, LYNSEY MELVILLE, CAMINO GONZÁLEZ-LANZA, **MARÍA MARTÍNEZ-VALLADARES**. Quantification of resistant alleles in the β -tubulin gene of field strains of gastrointestinal nematodes and their relation with the faecal egg count reduction test. *BMC Veterinary Research*. 2017; 13: 71. (Q1) (24/136).
- ROBLES-PÉREZ D, GARCÍA-GARCÍA P, MARTÍNEZ-PÉREZ JM, ROJO-VÁZQUEZ FA, **MARTÍNEZ-VALLADARES M**. Screening anthelmintic resistance to triclabendazole in *Fasciola hepatica* isolated from sheep by means of an egg hatch assay. *BMC Veterinary Research*. 2015. 11, 226 - 230. (Q1) (28/138).
- ROBLES-PÉREZ D, MARTÍNEZ-PÉREZ JM, ROJO-VÁZQUEZ FA, **MARTÍNEZ-VALLADARES M**. Development of an egg hatch assay for the detection of anthelmintic resistance to albendazole in *Fasciola hepatica* isolates from sheep. *Veterinary Parasitology*. 2014. 16. 217-221. (Q1) (7/133).
- **MARTÍNEZ-VALLADARES M**, ROBLES-PÉREZ D, MARTÍNEZ-PÉREZ JM, CORDERO-PÉREZ C, FAMULARO MR, FERNÁNDEZ-PATO N, GONZÁLEZ-LANZA C, CASTAÑÓN-ORDÓÑEZ L, ROJO-VÁZQUEZ FA. Prevalence of gastrointestinal nematodes and *Fasciola hepatica* in sheep in the northwest of Spain: relation to climatic conditions and/or man-made environmental modifications. *Parasites and Vectors*. 2013. 6. 282-90. (Q1) (8/36).
- **MARTÍNEZ-VALLADARES M**, MARTÍNEZ-PÉREZ JM, ROBLES-PÉREZ D, CORDERO-PÉREZ C, FAMULARO MR, FERNÁNDEZ-PATO N, CASTAÑÓN-ORDÓÑEZ L, ROJO-VÁZQUEZ FA. The present status of anthelmintic resistance in gastrointestinal nematode infections of sheep in the Northwest of Spain by *in vivo* and *in vitro* techniques. *Veterinary Parasitology*. 2013. 191, 177-81. (Q1) (5/129).



- **MARTÍNEZ-VALLADARES M, PETER GELDHOF, NICHOLAS JONSSON, FRANCISCO-ANTONIO ROJO-VÁZQUEZ, PHILIP SKUCE.** *Teladorsagia circumcincta*: molecular characterisation of the avr-14B subunit and its putative role in ivermectin resistance. *International Journal for Parasitology: Drugs and Drug Resistance*. 2012. 2, 154-161. (Q1) (6/35).
- **MARTÍNEZ-VALLADARES M, CORDERO-PÉREZ C, CASTAÑÓN-ORDÓÑEZ L, FAMULARO MR, FERNÁNDEZ-PATO N, ROJO-VÁZQUEZ FA.** Efficacy of Moxidectin/Triclabendazole Oral Formulation against Mixed Infections of *Fasciola hepatica* and gastro-intestinal nematodes in Sheep. *Veterinary Parasitology*. 2010. 174, 166-9. (Q1) (9/145).

C.2. Research projects and grants (international projects are indicated by an asterisk *)

- Title: Towards the interruption of transmission of Soil-Transmitted Helminths: clinical research development of a fixed-dose co-formulation of ivermectin and albendazole (STOP). Duration: 09/2018-09/2022. European & Developing Countries Clinical Trials Partnership (EDCTP). Budget: € 4,899,612. 2. Coordinator: José Muñoz (ISGLOBAL). Principal Researcher at the University of León: **María Martínez Valladares**; Budget University of León: € 274,361.44. *
- Title: Molecular markers related to benzimidazole resistance as tool for monitoring mass drug administration programmes. Duration: 07/2018-07/2019. British Society for Antimicrobial Chemotherapy. Budget (€): 15,000. Principal Researchers: **María Martínez Valladares**. *
- Title: Control of ovine trichostrongyloidosis: drug design, synthesis and clinical trials of new anthelmintic molecules. AGL2016-79813-C2-1R. Duration: 09/2016-04/2020. National Programme for Research Aimed at the Challenges of Society. Budget (€): 100,000. Principal Researchers: Rafael Balaña Fouce and **María Martínez Valladares**.
- Title: COST Action (European Cooperation in Science and Technology), “COMBAR” (Combatting anthelmintic resistance in ruminants). CA16230. Duration: 11/2017-10/2021. Budget (€): 444,000. Chair of the Action: Johannes Charlier (Belgium). Leader of the Spanish Management Committee and Short Term Scientific Missions coordinator: **María Martínez Valladares**. *
- Title: Surveillance platform for the monitoring of the emergence of anthelmintic resistance in Manhica district (Mozambique). Duration: 12/2017-12/2018. “Mundo Sano” Foundation. Budget (€): 30,000. Principal Researchers: José Muñoz and **María Martínez Valladares**. *
- Reference: RTA2013-00064-C02-02. Title: development of new tools for the early diagnosis of the resistance to anthelmintics. Principal Researcher: M^a del Camino González Lanza (Instituto de Ganadería de Montaña, CSIC). Funding Agency: INIA. Duration: 01/10/2014 -01/10/2017. Budget (€): 57,811.
- Reference: FP7-PEOPLE-2010-ITN. Title: A systems biology approach to controlling nematode infections of livestock (NEMATODESYSTEMHEALTH). Principal Investigator: Mike Stear (University of Glasgow). Funding Agency: FP7, Marie-Curie Action: "Initial Training Networks". Duration: 01/2011 to 12/2014. Budget (€): 3,365,535 € (mill € 3.3).*
- Reference: RTA2010-00094-C03-02. Title: Anthelmintic resistance, characterization and development of strategies for parasites control under the climate change. Northwest area. Principal Researcher: **María Martínez Valladares** (University of León). Funding Agency: INIA. Duration: 10/2010 to 12/2013. Budget (€): 90,840.
- Title: Genetic variability of *Fasciola hepatica* strains in sheep and its epidemiological importance. Principal Researcher: **María Martínez Valladares**. Funding Agency: Fundación Monteleón. Duration: 01/07/2010 -01/07/2012. Budget (€): 6,000.

C.3. Contracts (international contracts indicated by an asterisk *)

- Title of the contract: Productivity improvement in sheep flocks by the control of infections by helminths parasites. Company: Sociedad Cooperativa Limitada Bajo Duero (COBADU). Duration: 10/06/2014 – 15/10/2016. Principal Researcher: FRANCISCO A. ROJO VÁZQUEZ. Budget (€): 144,642.
- Title of the contract: Anthelmintic resistance survey in Europe: cattle gastro-intestinal nematodes. Company / Funding Administration: Pfizer S.A. Duration: 09/2011 – 04/2012. Principal Researcher: FRANCISCO A. ROJO VÁZQUEZ. Budget (€): 20,000.*
- Title of the contract: Anthelmintic Resistance Survey in Europe: Sheep Gastro-Intestinal Nematodes (GINs). Company / Funding Administration: Pfizer S.A. Duration: 09/2011 – 04/2012. Principal Researcher: FRANCISCO A. ROJO VÁZQUEZ. Budget (€): 20,000.*
- Title of the contract: Development of a real-time pcr for the detection cytokines in frozen blood. Company / Funding Administration: Laboratorios Ovejero. Duration: 04/2011 – 09/2011. Principal Researcher: **MARÍA MARTÍNEZ VALLADARES**. Budget (€): 4,198.



- Title of the contract: Effect of the application of an immunomodulator (Talurón ®) in sheep with fasciolosis. Company / Funding Administration: Laboratorios Ovejero. Duration: 04/2010 – 12/2011. Principal Researcher: FRANCISCO A. ROJO VÁZQUEZ. Budget (€): 28,115.

C.4. Patents

01/2016. National Patent Application in Spain N° 201630002. Title: “Procedimiento de detección de *Fasciola* spp., oligonucleótidos utilizados y kit” (Procedure for detection of *Fasciola* spp., Oligonucleotides used and kit). Holder: UNIVERSITY OF LEÓN. S/Ref.: N/Ref.: 2015/17221

C.5. Supervision of research project of Masters

- 2019-2020. Tutor of the research for the Master's Degree in “Innovation in biomedical and health sciences” of ALICIA PEÑA GONZÁLEZ, "Human onchocerciasis, treatment and new control methods". June 2020, Outstanding.
- 2017-2018. Tutor of the research for the Master's Degree in Research in Fundamental Biology and Biomedicine of VERÓNICA CASTILLA GÓMEZ DE AGÜERO, entitled "Characterization of the immune response in sheep to *Teladorsagia circumcincta*". June 2018, Outstanding.
- 2015-2016. Tutor of the research for the Master's Degree in Tropical Diseases (University of Salamanca) of BELÉN MAYO: “Development of a new non-invasive method for the diagnosis of canine Ehrlichiosis”. Qualification: Excellent.
- 2015-2016. Tutor of the research for the Master's Degree in Innovation in Biomedical and Health Sciences of ÁLVARO A. MARTÍNEZ VALLADARES: “Towards a global understanding of anthelmintic resistance in *Fasciola* spp”. Qualification: Excellent.
- 2012-2013: Tutor of the research for the Master's Degree in Veterinary Science and Food Technology of MYRIAM ESTEBAN BALLESTEROS: “Molecular basis of anthelmintic resistance to anthelmintic drugs in sheep”. Qualification: Excellent.
- 2010-2011: Tutor of the research for the Master's Degree in Veterinary Science and Food Technology of DAVID ROBLES PÉREZ: “Diagnosis of anthelmintic resistance in sheep”. Qualification: Excellent.

C.6. Supervision of PhD students

- 2019- in progress. Supervisor of the doctoral thesis MARIA CAMBRA PELLEJA: “Efficacy trial with Ivermectin in individuals with *Strongyloides stercoralis* infection”.
- 2018- in progress. Supervisor of the doctoral thesis VERÓNICA CASTILLA GÓMEZ DE AGÜERO: “Study of new genomic tools for the control of infections by *Teladorsagia circumcincta* infections in sheep”.
- 2018- in progress. Supervisor of the doctoral thesis LUIS JAVIER MERINO GOYENECHEA: “Prevalence of Canine Leishmaniasis in Castilla y Leon, by means of qPCR using non-invasive techniques”
- 2018- in progress. Supervisor of the doctoral thesis ELORA VALDERAS GARCÍA: “Control of ovine trichostrongilidosis: design, synthesis and efficacy clinical trials of new anthelmintic action molecules”.
- 2013-2017. Co-supervisor of the doctoral thesis MYRIAM ESTEBAN BALLESTEROS: “Control of gastrointestinal nematodes in sheep flocks: new tools for the early detection of anthelmintic resistance”. Best qualification 'cum laude' (September 2018).
- 2012-2016. Co-supervisor of the doctoral thesis MARINA ATLIJA: “High density mapping to identify genes associated to gastrointestinal nematode infections resistance in Spanish Churra sheep”. Best qualification 'cum laude' (July, 2016). International Doctor Mention.
- 2010-2015. Co-supervisor of the doctoral thesis DAVID ROBLES PÉREZ: “Detection methods to diagnose the anthelmintic resistance in sheep with fascioliasis”. Best qualification 'cum laude' (December, 2015).
- 2010-2014. Co-supervisor of the doctoral thesis of JOSÉ MANUEL MARTÍNEZ PÉREZ: “Ovine fascioliasis: control of infection by alternative methods”. Best qualification 'cum laude'. (October, 2014).
- 2010-2013. Co-supervisor of the doctoral thesis of ANA MARÍA MARTÍNEZ IBEAS: “New methods for diagnosis and control of Dicrocoeliosis, important parasite in ruminants”. Best qualification 'cum laude'. (October, 2013).

C7. Participation as a member of the editorial committee

2019. Member of the Editorial Committee, SCI journal "Pathogens". Impact Factor: 3.018; Q2 (Microbiology)