

**Part A. Personal Information**

<b>DATE</b>	28-05-2019
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Surname(s)	Argüello Henríquez	
Forename	Anastasio carlos	
Social Security, Passport, ID number	42842774F	
Sex	Male	
Age	50	
Researcher codes	WoS Researcher ID (*)	B-4493-2010
	SCOPUS Author ID(*)	6701710018
	Open Researcher and Contributor ID (ORCID)	0000-0002-4426-0678

(\*) At least one of these is mandatory

**A.1. Current position**

Post/ Professional Category	Full Professor	
UNESCO Code	3104	
Key Words	Small ruminants, immunity, meat, milk, colostrum, cheese	
Name of the University/Institution	Universidad de Las Palmas de Gran Canaria	
	Department/Centre	Instituto de Sanidad Animal
	Full Address	Transmontaña s/n, 35413-Arucas (Las Palmas)
	Email Address	tacho@ulpgc.es
	Phone Number	+34-928-451094
Start date		

**A.2. Education (title, institution, date)**

Year	University	Degree	Title
1995	ULPGC	First degree	Bachelor in Veterinary Science
		Masters (if appropriate)	
2000		PhD	ULPGC Ph.D.

**A.3. Indicators of Quality in Scientific Production (See the instructions)**

4 recognized periods of research. According Web of Science: 1180 total cites, 135 per year in the last five years. 117 contributions, 40% in Q1. H index 20. Six Ph.D. supervised. Four research periods approved.

**Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)**

Anastasio Argüello is an internationally recognized expert in small ruminant. He was born in a Las Palmas de Gran Canaria (Canary Island, Spain; August 1968) and received his elementary and high school education in the same island. He attended university education at the University of Las Palmas de Gran Canaria (ULPGC), Spain (1987-95). At the ULPGC he earned the degrees of Bachelor of Veterinary Science (1995) and the Ph.D. (2000, Animal Science). After a postdoctoral period of research in the USDA (Beltsville, MD) and in University of Bern (Veterinary Physiology Lab, Posieux, Friburg), he moved to the Animal Science Department of the ULPGC as Assistant Professor, and finally got the full Professor with tenure in 2015. Recently he was granted with a sabbatical year in the TEAGASC, Grange, Ireland for one year. He became a member of the various Scientific Societies in Spain (SEOC and FEACA), and in the USA (ADSA and IGA). He has been designated as Editor in Chief of the Journal of Applied Animal Research (ISI Journal) in 2011. Dr. Argüello main field of research and extension interest is small ruminant (immunity, meat and cheese production and quality). He published more than 150 papers (scientific and extension) and abstracts in scientific journals and

proceedings of national and international meetings. Moreover, he has conducted research and consulted for public organizations and private companies.

In reference to present proposal, proteomic have been a tool used in the Animal Production lab in the ULPGC since 2015. The focus has been oriented to the minor proteins presented in the colostrum and which are absorbed by the neonates. As the results of the interest in Proteomics, we were enrolled in the COST Action "Farm Animal Proteomics".

## **Part C. Relevant accomplishments**

### **C.1. Publications**

- 1-Surlis, C., B. Earley, M. McGee, K. Keogh, P. Cormican, G. Blackshields, K. Tiernan, A. Dunn, S. Morrison, A. Argüello, and S. M. Waters. 2018. Blood immune transcriptome analysis of artificially fed dairy calves and naturally suckled beef calves from birth to 7 days of age. *Scientific Reports* 8.
- 2-Cugno, G., J. R. Parreira, E. Ferlizza, L. E. Hernandez-Castellano, M. Carneiro, J. Renaut, N. Castro, A. Argüello, J. Capote, A. M. O. Campos, and A. M. Almeida. 2016. The Goat (*Capra hircus*) Mammary Gland Mitochondrial Proteome: A Study on the Effect of Weight Loss Using Blue-Native PAGE and Two-Dimensional Gel Electrophoresis. *Plos One* 11(3).
- 3-Hernandez-Castellano, L. E., A. M. Almeida, N. Castro, and A. Argüello. 2014. The Colostrum Proteome, Ruminant Nutrition and Immunity: A Review. *Current Protein & Peptide Science* 15(1):64-74.
- 4-Hernandez-Castellano, L. E., A. M. Almeida, J. Renaut, A. Argüello, and N. Castro. 2016. A proteomics study of colostrum and milk from the two major small ruminant dairy breeds from the Canary Islands: a bovine milk comparison perspective. *Journal of Dairy Research* 83(3):366-374.
- 5-Hernandez-Castellano, L. E., A. M. Almeida, M. Ventosa, A. V. Coelho, N. Castro, and A. Argüello. 2014. The effect of colostrum intake on blood plasma proteome profile in newborn lambs: low abundance proteins. *Bmc Veterinary Research* 10.
- 6-Hernandez-Castellano, L. E., A. Argüello, A. M. Almeida, N. Castro, and E. Bendixen. 2015. Colostrum protein uptake in neonatal lambs examined by descriptive and quantitative liquid chromatography-tandem mass spectrometry. *Journal of Dairy Science* 98(1):135-147.
- 7-Hernandez-Castellano, L. E., A. M. Ferreira, P. Nanni, J. Grossmann, A. Argüello, J. Capote, G. H. Cai, J. Lippolis, N. Castro, and A. M. de Almeida. 2016. The goat (*Capra hircus*) mammary gland secretory tissue proteome as influenced by weight loss: A study using label free proteomics. *Journal of Proteomics* 145:60-69.
- 8-Palma, M., L. E. Hernandez-Castellano, N. Castro, A. Argüello, J. Capote, M. Matzapetakis, and A. Martinho de Almeida. 2016. NMR-metabolomics profiling of mammary gland secretory tissue and milk serum in two goat breeds with different levels of tolerance to seasonal weight loss. *Molecular Biosystems* 12(7):2094-2107.
- 9-Suarez-Trujillo, A., A. Argüello, M. A. Rivero, J. Capote, and N. Castro. 2019. Short communication: Differences in distribution of serotonin receptor subtypes in the mammary gland of sheep, goats, and cows during lactation and involution. *Journal of Dairy Science* 102(3):2703-2707.
- 10-Hernandez-Castellano, L. E., A. Morales-delaNuez, D. Sanchez-Macias, I. Moreno-Indias, A. Torres, J. Capote, A. Argüello, and N. Castro. 2015. The effect of colostrum source (goat vs. sheep) and timing of the first colostrum feeding (2 h vs. 14 h after birth) on body weight and immune status of artificially reared newborn lambs. *Journal of Dairy Science* 98(1):204-210.

### **C.2. Research Projects and Grants**

- 1) Microsatellite implantation in gilt-head bream breeding. Grant by Universidad de Las Palmas de Gran Canaria. 2000. Budget 6000 €. Anastasio Argüello was a scientist.
- 2) Slaughter management in gilt-head bream, effects on meat quality. Grant by Ministerio de Educación y Ciencia (Spain). 2000-2001. Budget 15000 €. Anastasio Argüello was a scientist.
- 3) Acquisition of scientific infrastructure. Grant by Universidad de Las Palmas de Gran Canaria. 2001. Budget 4000 €. Anastasio Argüello was a scientist.
- 4) Microsatellite implantation in gilt-head bream breeding. Grant by Gobierno de Canarias (Spain). 2000-2003. Budget 12000€. Anastasio Argüello was a scientist.
- 5) Muscle fiber in milk replacer goat kids. Grant by Fundacion Universitaria de Las Palmas (Spain). 2001. Budget 3000 €. Anastasio Argüello was the leader.

- 6) Using CLA in goat kid milk replacers, effects on carcass and meat quality. Grant by Universidad de Las Palmas de Gran Canaria. 2001. Budget 3000 €. Anastasio Argüello was the leader.
- 7) Breed and slaughter weight effects on meat quality. Grant by Instituto Nacional de Investigación Agraria (Spain). 2001-2003. Budget 10000 €. Anastasio Argüello was a scientist.
- 8) Increasing CLA and Omega 3 in goat milk and meat. Grant by Gobierno de Canarias (Spain). 2002-2004. Budget 42000 €. Anastasio Argüello was a co-leader.
- 9) Using electronic identification (EID) and molecular markers (DNA) for improving the traceability of livestock and meat in the EU. Grant by European Union, General Directorate VI FII.3. 2001-2005. Budget 1582382 €. Anastasio Argüello was a scientist.
- 10) Transformation of traditional system on organic, goat milk production example. Grant by Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica de la Consejería de Innovación y Ciencia de la Junta de Andalucía (Spain). 2005-2008. Budget 23650 €. Anastasio Argüello was a scientist.
- 11) Biotechnological and nutritional uses of cheese whey. Grant by Ministerio de Educación y Ciencia (Spain). 2006-2009. Budget 114950 €. Anastasio Argüello was the leader.
- 12) Improving the immune passive transfer through the knowledge of IgG kinetic of transport and starting of IgG endogenous production. Grant by Gobierno de Canarias (Spain). 2006-2008. Budget 20108 €. Anastasio Argüello was the leader.
- 13) Meat production of the main two sheep breeds in Canary Island. Grant by Instituto Nacional de Investigación Agraria. 2006-2009. Budget 59172 €. Anastasio Argüello was a scientist.
- 14) Acquisition of scientific infrastructure. Grant by Gobierno de Canarias (Spain). 2007. Budget 6982 €. Anastasio Argüello was the leader.
- 15) Acquisition of scientific infrastructure. Grant by Gobierno de Canarias (Spain). 2008. Budget 6279 €. Anastasio Argüello was the leader.
- 16) Acquisition of scientific infrastructure. Grant by Ministerio de Educación y Ciencia (Spain). 2009. Budget 5300 €. Anastasio Argüello was the leader.
- 17) Acquisition of scientific infrastructure. Grant by Ministerio de Educación y Ciencia (Spain). 2010. Budget 200000 €. Anastasio Argüello was the leader.
- 18) Effect of seaweed addition in milk replacer in immune system of goat kids and lambs. Grant by Ministerio de Educación y Ciencia (Spain). 2010-2012. Budget 72600 €. Anastasio Argüello was the leader.
- 19) Meat quality in 8 goat breeds and the relationship with Leptin, Adiponectin, Resistin and Ghrelin. Granted by INIA. 2013-2016. Budget 80040 €.

#### **C.4. Patents and other IPR**

Authors: Argüello Henríquez, Anastasio, Castro Navarro, Noemí  
Title: Inmunocolostrómetro  
ID: P200600106/X  
Year: 2005

#### **C.5, C.6, C.7... Other**

##### **C.5. Honors and awards**

- Agrarian, Fisheries and Food Award to the best divulgator manuscript, Canary Island Government, Spain, 1998.
- Agrarian, Fisheries and Food Award to the best research manuscript, Canary Island Government, Spain, 2000.
- Best Ph.D. Thesis Award. University of Las Palmas de Gran Canaria, 2002.
- Research Fellowship, Ministry of Education and Research (MEC), Govern of Spain, summer 2010.
- Research Fellowship, Ministry of Education and Research (MEC), Govern of Spain, 2017-2018 (six month)

##### **C.6. Research exchanges at international Research Centers and Universities**

- 1) Meat Science Research Lab, ARS, USDA, Beltsville, USA. May-July 2000. With Dr. Solomon.

- 2) Veterinary Physiology Department, Bern University, Posieux, Switzerland. May-August 2010. With Dr. Bruckmaier.
- 3) Teagasc, Grange, Republic of Ireland. June 2017 to June 2018. With Dr Earley.

### **C.7. Reviewer and Editor member**

Journal of Dairy Science, Journal of Dairy Research, Small Ruminant Research, Archivos de Zootecnia, Journal of Applied Animal Research, Canadian Journal of Animal Science, Journal of Agricultural Science and Technology, Journal of Food and Nutrition Research, Journal of Food Protection, Livestock Science, Meat Science, Tropical Animal Health and Production, and Turkish Journal of Veterinary and Animal Science.

Editor in chief of Journal of Applied Animal Research.

### **C.8. Contributions to COST Action Farm Animal Proteomics (FA1002)**

Farm animal proteomics 2012. Proceedings of the 3rd Managing Committee Meeting and 2nd Meeting of Working Groups 1, 2 & 3 of COST Action FA1002. Vilamoura, Algarve, Portugal. 12-13 April 2012. Edited by: Pedro Rodrigues, David Eckersall, André de Almeida.

-The effect of colostrum intake on blood plasma proteomic profiles of newborn lambs 148  
Lorenzo Enrique Hernández-Castellano, André Martinho de Almeida, Miguel Ventosa, Antonio José Morales-delaNuez, Ana Varela Coelho, Diego Martell Jaizme, Noemí Castro Navarro and Anastasio Argüello Henríquez

Farm animal proteomics 2013. Proceedings of the 4th Management Committee Meeting and 3rd Meeting of Working Groups 1, 2 & 3 of COST Action FA1002, Košice, Slovakia, 25-26 April 2013. Edited by: André de Almeida, David Eckersall, Elena Bencurova, Saskia Dolinska, Patrik Mlynarcik, Miroslava Vincova, Mangesh Bhide.

-The absorption of colostral proteins in newborn lambs: an iTRAQ proteomics study  
Lorenzo E. Hernández-Castellano, Anastasio Argüello, Thomas F. Dyrland, André M. Almeida, Noemí Castro and Emøke Bendixen

-Seasonal weight loss in dairy goats from the Canary Islands: towards an integrated omics approach? 204

Joana R. Lérias, Lorenzo E. Hernández-Castellano, Antonio Morales-delaNuez, Susana S. Araújo, Noemí Castro, Anastasio Argüello, Juan Capote and André M. Almeida

Farm animal proteomics 2014. Proceedings of the 5th Management Committee Meeting and 4th Meeting of Working Groups 1,2 & 3 of COST Action FA 1002. Milano, Italy. 17-18 November 2014. Edited by: André de Almeida, Fabrizio Ceciliani, David Eckersall, Ingrid Miller, Jenny Renaut, Paola Roncada, Romana Turk

- Colostrum protein uptake in neonatal lambs examined by descriptive LC-MS/MS  
Lorenzo E. Hernández-Castellano, Anastasio Argüello, André M. Almeida, Noemí Castro and Emøke Bendixen

- Proteomics of the mitochondrial proteome in dairy goats (*Capra hircus*)  
Graziano Cugno, Lorenzo E. Hernandez-Castellano, Mariana Carneiro, Noemí Castro, Anastasio Argüello, Juan Capote, Sébastien Planchon, Jenny Renaut, Alexandre M. Campos and André M. Almeida

- A proteomics study on colostrum and milk proteins of the two major small ruminant dairy breeds from the Canary Islands on a bovine comparison perspective  
Lorenzo E. Hernández-Castellano, André M. Almeida, Sébastien Planchon, Jenny Renaut, Anastasio Argüello and Noemí Castro.

- First characterization of the goat mammary gland proteome secretory tissue using shotgun proteomics

Joana R. Lérias, Lorenzo E. Hernández-Castellano, Noemí Castro, Anastasio Argüello, Juan Capote, Alan Stensballe, Jeffrey E. Plowman, Stefan Clerens, Emøke Bendixen and André M. de Almeida