



CURRICULUM VITAE (CVA)

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



Part A. PERSONAL INFORMATION

CV date

01/09/2022

First name	José Manuel		
Family name	Lorenzo Rodriguez		
Gender (*)	Male	Birth date	12/10/1976
ID number	44448571J		
e-mail	jmlorenzo@ceteca.net	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-7725-9294		

(*) Mandatory

A.1. Current position

Position	Head of Research		
Initial date	2007		
Institution	Centro Tecnológico de la Carne de Galicia		
Department/Center	Food Science and Technology		
Country	Spain	Teleph. number	+34988548277
Key words	Meat quality; natural antioxidant; emerging technologies, shelf-life; oxidation; active packaging; functional foods; bioactive compounds; nutrients		

A.2. Education

PhD, Licensed, Graduate	University/Country	Year
Ph.D. in Food Science and Technology	University of Vigo/Spain	2006
M.S. in Food Science and Technology	University of Vigo/Spain	2000

PartB. CV SUMMARY

José Manuel Lorenzo is Head of Research at the Meat Technology Centre of Galicia (CTC), Ourense, Spain. He has a degree in Food Science and Technology from University of Vigo (1995-2000). In 2005-2006 from October to March, he completed his training with a predoctoral stay at the *Stazione Sperimentale per L'Industria delle Conserve Alimentaria* (Parma, Italy). He obtained his Ph.D. in Food Science and Technology (University of Vigo) in 2006. He has started his scientific career in the Department of Food Science and Technology at the University of Vigo, first as researcher scholarship, then, since April 2006, as academic researcher. In 2007 joined the CTC staff, developing since then an intense collaboration with the industrial sector, private companies, and research institutions as PI of several projects of R&D and innovation in Food Science area, with emphasis in Healthier and Functional Foods development. His desire to be continuously training has led him to make two international stays for two months each at University de São Paulo (Brazil) and University of Bari (Italia) in 2016 and 2018, respectively. These stays allowed him to strengthen international relations for future collaborations in calls for European and International projects, as well as the cooperation in training programs for research and technical personnel.



Nowadays, he leads a multidisciplinary team of researchers and technicians at CTC, composed of four PhD, three Technical Support Staff (PTA) of MINECO, three pre-doctoral scholarship staff that currently consists of 1 FPI-INIA scholarship holder, 1 from the Public University of Navarra (UPNA) and 1 from XUGA-GAIN, and two postdoctoral fellows within *Juan de la Cierva - formación* and *Margarita Salas* programs. His main research lines are: (i) Reduction of additives in meat products; (ii) Development of new healthier meat products; (iii) Use of agri-food industries by-products as potential sources to obtain valuable and bioactive compounds; (iv) Use of emerging and green technologies (supercritical fluid extraction and pulse electric fields) for the recovery of biological active compounds from several plant matrices and by-products; (v) Incorporation of bioactive compounds and development of functional foods; and (vi) Use of active packaging to protect foods against oxidative degradation.

He was principal researcher in **three European projects, nine national projects and fifty-eight regional projects** (Galicia, NW Spain) with meat industries. Moreover, he has participated in more than 110 projects as research collaborator. His continuous efforts to promote the scientific developments in this fields, he has led to create the collaborative scientific network *Healthy Meat* (funded by CYTED) that is composed of 140 experts and highly cited researchers in Food Science located in reputed Iberoamerican research centers and universities. His leadership in this network led to numerous scientific publications, press releases, articles to technical magazines, scientific meetings, and posts in social media, which highlights his activities to connect researchers, professionals, students, and the general public with advances in the development of Healthier and Functional Meat Products. In addition, he coordinates a comprehensive and quality training plan through a quality and international doctoral program, complemented by a mobility program between institutions that are working with functional foods. He has directed six theses and is currently directing eight, as well as he coordinates the projects of undergraduate students to obtain their academic degree in Food Science and Technology.

His short but intense career gives him a great experience in the meat sector, recognized in 2021 by the Expertscape ranking (<https://expertscape.com/>) as **the world's leading expert on meat, meat products and food technology**. In addition, it gives him the second place in "Food" and the seventh "Food preservation". Moreover, José M. Lorenzo was elected as the top 2% of scientists - Ranking University of Standford (<https://elsevier.digitalcommonsdata.com/datasets/btchxktyw/3>), who ranks 64th in the field of "Agriculture, Fisheries & Forestry" and 29th in the subfield "Food Science". He also holds the third place as most cited researcher among all Spanish researchers in this fields.

Regarding his research experience, the quality and impact of his scientific production stands out:

1. His scientific production includes **870 research papers** in well-recognized peer-reviewed international journals (SCI), with **56% of them in the first quartile** (number of publications in Q1 is higher than 360), and **323 communications to national and international congresses**. His **h-index is 70** with **cites of 17,044** in Scopus.

2. He has **edited twelve international books** and one national. Moreover, he has written **seventy-six chapters in international and national books**.

3. He has one **national patent** as inventor "Elaboration process of "Cecina" for cattle and equine".

4. He is **Chief Editor** in *Frontiers in Animal Science* journal, and **Associate Editor** of five prestigious journals: *Food Analytical Methods*, *Journal of the Science Food and Agriculture*, *Animal Science Journal*, *Canadian Journal of Animal Science* and *Food Research International*. He has also edited several Special Issues for these high impact journals to create more discussion around key aspects of functional food development: innovative technologies, functional ingredients, and food safety and quality.

PartC. RELEVANT MERITS

C.1. Publications

Bellucci, E. R. B., Dos Santos, J. M., Carvalho, L. T., Borgonovi, T. F., **Lorenzo, J. M.**, & da Silva-Barretto, A. C. (2022). Açai extract powder as natural antioxidant on pork patties during the refrigerated storage. *Meat Science*, 184, 108667.

Pateiro, M., Munekata, P. E., Sant'Ana, A. S., Domínguez, R., Rodríguez-Lázaro, D., & **Lorenzo, J. M.** (2021). Application of essential oils as antimicrobial agents against spoilage and pathogenic microorganisms in meat products. *International Journal of Food Microbiology*, 337, 108966.

Bellucci, E. R. B., Munekata, P. E., Pateiro, M., **Lorenzo, J. M.**, & da Silva Barretto, A. C. (2021). Red pitaya extract as natural antioxidant in pork patties with total replacement of animal fat. *Meat Science*, 171, 108284.



Barros, J. C., Munekata, P. E., de Carvalho, F. A. L., Domínguez, R., Trindade, M. A., Pateiro, M., & **Lorenzo, J. M.** (2021). Healthy beef burgers: Effect of animal fat replacement by algal and wheat germ oil emulsions. *Meat Science*, 173, 108396.

Alirezalu, K., Hesari, J., Yaghoubi, M., Khaneghah, A. M., Alirezalu, A., Pateiro, M., & **Lorenzo, J. M.** (2020). Combined effects of ϵ -polylysine and ϵ -polylysine nanoparticles with plant extracts on the shelf life and quality characteristics of nitrite-free frankfurter-type sausages. *Meat Science*, 172, 108318.

Echegaray, N., Pateiro, M., Gullón, B., Amarowicz, R., Misihairabgwi, J. M., & **Lorenzo, J. M.** (2020). Phoenix dactylifera products in human health—A review. *Trends in Food Science & Technology*, 105, 238-250.

Domínguez, R., Zhang, L., Rocchetti, G., Lucini, L., Pateiro, M., Munekata, P. E., & **Lorenzo, J. M.** (2020). Elderberry (*Sambucus nigra* L.) as potential source of antioxidants. Characterization, optimization of extraction parameters and bioactive properties. *Food Chemistry*, 330, 127266.

Granato, D., Barba, F. J., Kovačević, D. B., **Lorenzo, J. M.**, Cruz, A. G., & Putnik, P. (2020). Functional Foods: Product Development, Technological Trends, Efficacy Testing, and Safety. *Annual Review of Food Science and Technology*, 11, 93-118.

de Carvalho, F. A. L., Munekata, P. E., de Oliveira, A. L., Pateiro, M., Dominguez, R., Trindade, M. A., & **Lorenzo, J. M.** (2020). Turmeric (*Curcuma longa* L.) extract on oxidative stability, physicochemical and sensory properties of fresh lamb sausage with fat replacement by tiger nut (*Cyperus esculentus* L.) oil. *Food Research International*, 136, 109487.

Alirezalu, K., Pateiro, M., Yaghoubi, M., Alirezalu, A., Peighambaroust, S. H., & **Lorenzo, J. M.** (2020). Phytochemical constituents, advanced extraction technologies and techno-functional properties of selected Mediterranean plants for use in meat products. A comprehensive review. *Trends in Food Science & Technology*, 100, 292-306.

C.2. Congress

Lorenzo, J.M., Borrajo, P., Bermúdez, R., Munekata, P.E.S, Domínguez, R., Pateiro, M., & Franco, D. (2021). Extending the shelf-life of pork patties using protein hydrolysates obtained from porcine liver. 67th *International Congress of Meat Science and Meat Technology*. Poland, 23-27 August 2021. Type of participation: Poster.

Lorenzo, J.M., Bermúdez, R., Munekata, P.E.S, Echegaray, N., Vargas-Ramella, M., Domínguez, R., Pateiro, M., & Franco, D. (2021). Effect of turmeric addition on colour and lipid oxidation of beef meatballs. 67th *International Congress of Meat Science and Meat Technology*. Poland, 23-27 August 2021. Type of participation: Poster.

Pateiro, M., Bermúdez, R., Domínguez, R., Munekata, P.E.S, & **Lorenzo, J.M.** (2021). Effect of replacement of pork backfat fat by microencapsulated fish liver oil on nutritional profile of pork burgers. 67th *International Congress of Meat Science and Meat Technology*. Poland, 23-27 August 2021. Type of participation: Poster.

Lopez-Pedrouso, M., Borrajo, P., Franco, D., & **Lorenzo, J.M.** (2020). Peptidomic analysis of porcine liver hydrolysates using SWATH-MS to search biopeptides. 66th *International Congress of Meat Science and Meat Technology*. Orlando (USA), 2-07 August 2020. Type of participation: Poster.

Bermúdez, R., Echegaray, N., Pateiro, M., Munekata, P.E.S, López-Fernández, O., Franco, D., & **Lorenzo, J.M.** (2020). Effect of natural antioxidants attached to the packaging on the shelf life of cooked ham. 66th *International Congress of Meat Science and Meat Technology*. Orlando (USA), 2-07 August 2020. Type of participation: Poster.

C.3. Research projects

Title: Aquaculture and agriculture biomass side stream proteins and bioactives for feed, fitness and health promoting nutritional supplements (AQUABIOPROFIT). **Reference:** 790956

Principal investigator: José Manuel Lorenzo Rodriguez

Funding entity: H2020-BBI-JTI-2017

Date: 01/06/2018-31/05/2022

Funding amount of CTC: 225,097 €

Type of participation: Principal investigator

State of project: Approved

Title: Obtaining bioactive peptides from by-products of animal origin to increasing meat products shelf-life. **Reference:** RTA2017-00024-C04-04

Principal investigator: José Manuel Lorenzo Rodriguez

Funding entity: Plan Nacional de I+D+i 2013-2016

Date: 01/09/2017-31/08/2020

Funding amount of CTC: 102,939 €

Type of participation: Principal investigator

State of project: Approved



Title: Holistic production to reduce the ecological footprint of meat (EcoLamb). **Reference:** PCIN-2017-053

Principal investigator: José Manuel Lorenzo Rodriguez

Funding entity: Eranet-Susan

Date: 01/10/2017-31/03/2020

Funding amount of CTC: 98,000 €

Type of participation: Principal investigator

State of project: Approved

Title: Increased shelf life and quality of products derived from deer and development of new products (INCYDEN). **Reference:** RTC-2016-5327-2

Principal investigator: José Manuel Lorenzo Rodriguez

Funding entity: *RETOS-COLABORACION. Ministerio de Economía y Competitividad*

Date: 01/06/2016-31/12/2019

Funding amount of CTC: 290,000 €

Type of participation: Principal investigator

State of project: Approved

Title: Influence of the crossing with Burguete on the productive parameters and characteristics of the carcass and meat quality of Galician foal. Ageing and commercial meat shelf life. **Reference:** RTA2012-00090-C03-01

Principal investigator: José Manuel Lorenzo Rodriguez

Funding entity: *Plan Nacional de I+D+i 2008-2011*

Date: 01/06/2013-31/12/2015

Funding amount of CTC: 57,748.80 €

Type of participation: Principal investigator

State of project: Approved

C.4. Contracts, technological or transfer merits

Title: New system of incorporation of antimicrobials and natural antioxidants, absorbed in hydrocalcites, for active packaging of meat products (LIBERCARN). **Reference:** ITC-20161009

Principal investigator: Jose Manuel Lorenzo Rodriguez

Participating institutions: Coopbox Hispania S.L.; Portalconsa, S.L.; Destilerias Muñoz Galvez S.A.; Plastic Technology Center and Meat Technology Centre of Galicia

Funding entity: *FEDER-INTERCONECTA. Centro para el Desarrollo Tecnológico e Industrial (C.D.T.I.) - Ministerio de Economía y Competitividad*

Date: 01/10/2016-31/12/2018

Funding amount of CTC: 65,000 €

Type of participation: Principal investigator

State of project: Approved

Title: Research and development of ingredients and protein foods with technological and healthy functionalities focused to target populations (ALIPROT). **Reference:** ITC-20151395

Principal investigator: Jose Manuel Lorenzo Rodriguez

Funding entity: *FEDER-INTERCONECTA. Centro para el Desarrollo Tecnológico e Industrial (C.D.T.I.) - Ministerio de Economía y Competitividad*

Participating institutions: Ourensanas Cooperative Group (COREN), Meat Technology Centre of Galicia, Algaenergy SA; Ainia Centro Tecnológico; Delaviuda Alimentación S.A.; Queizuar S.L.; University of Santiago de Compostela and University of Vigo

Date: 01/07/2015-31/12/2017

Funding amount of CTC: 55,000 €

Type of participation: Principal investigator

State of project: Approved

Title: Development of new differential quality foods, to add value to the raw materials and to value the by-products of the Galician food industry (NEWGALIMENTOS). **Reference:** ITC-20133101

Principal investigator: Jose Manuel Lorenzo Rodriguez

Funding entity: *FEDER-INTERCONECTA. Centro para el Desarrollo Tecnológico e Industrial (C.D.T.I.) - Ministerio de Economía y Competitividad*

Participating institutions: Feiraco cooperative, S.L.; Cabomar Congelados, S.A.; Artesanos Gallegos de la Carne, S.L., Meat Technology Centre of Galicia, University of Santiago de Compostela and ANFACO

Date: 01/01/2013-31/12/2014

Funding amount of CTC: 45,000 €

Type of participation: Principal investigator

State of project: Approved

Title: Technologies for the diagnosis control and improvement of the health status of animals raised under intensive production systems and the quality of their products (TECOOPAGA). **Reference:** ITC-20133039

Principal investigator: Jose Manuel Lorenzo Rodriguez

Funding entity: *FEDER-INTERCONECTA. Centro para el Desarrollo Tecnológico e Industrial (C.D.T.I.) - Ministerio de Economía y Competitividad*

Participating institutions: Ammi Technologies, S.L., Conexiona Telecom, S.L., Ourensanas Cooperative Group (COREN), Feiraco cooperative, S.C.G., Meat Technology Centre of Galicia, University of Santiago de Compostela and University of Coruña



Data: 01/06/2013-31/12/2015

Funding amount of CTC: 130,000 €

Type of participation: Principal investigator

State of project: Approved

C.5. Patent

Inventors: Lorenzo, J.M., Franco, D., García, L., Fernández, M., García Fontán, M.C. and Bragado, D.

Title: Elaboration process of “Cecina” for cattle and equine

Nº of application: Spanish Patent P201330891 **Date of register:** 14/06/2013

Country of inscription: Spain **Operating aut.region/region:** Spain

Entity holder of rights: Meat Technology Centre of Galicia

C.6. Associate Professor

Universtiy of Vigo at Food Science and Technology deparment (from 01/09/2017)