Part A. Personal Information

DATE	18/09/2018

Surname(s)	FULLADOSA TOMÀS	
Forename	ELENA	
ID number	40.328.082 C	
Sex	FEMALE	
Age	41	
Researcher codes	WoS Researcher ID *(*)*	M-4925-2018
	SCOPUS Author ID*(*)*	55920393200
	Open Researcher and Contributor ID (ORCID)	0000-0002-4237-4401

(*) At least one of these is mandatory

A.1. Current position

Post/Professional Category	Researcher	
UNESCO Code	3309	
Key Words	X-rays, NIR, food technology, meat products, dry-cured ham, non-destructive technologies.	
Name of the University/Institution	Institute of Agriculture and Food Research and Technology (IRTA)	
	Department/Centre	Food Technology
	Full Address	Finca Camps i Armet s/n c.p 17121
	Email Address	elena.fulladosa@irta.cat
	Phone Number	972 630052 (ext 1484)
Start date	15/01/2007	

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

Year	**University**	**Degree**	**Title**
1999	University of Girona	First degree	Biology
2004	University of Girona	PhD	Biotechnology

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

h-index (WoS): 14 (2018-09-25)
Total number of citations (WoS): 559 (2018-09-25)
Average number of citations during the last ten years: 15.28
Total number of publications: 40
Total number of publications in the first quartile: 31
Total number of publications in the first quartile (last 10 years): 26
Thesis supervised: 2

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

Elena Fulladosa obtained her degree in Biology (2004) and later a pHD in Biotechnology (2014) at the University of Girona. She has over 15 years' experience as food researcher. She is researcher in Food Technology programme at Institute of Agriculture and Food research and Technology (IRTA) since 2007. Her research activity focuses on the development and application of new technologies at the food industry for process optimization and non-destructive on-line characterization of food products. She has worked with several technologies such as NIR, laser backscattering imaging and dielectric spectrometry and different X-ray based devices (Computed tomography, microcomputed tomography, dual-X-ray absorptiometry and X-ray inspectors). It is worth to remark her participation on the development of an industrial computed tomography actually being tested at the dry-cured ham industry. She is at this moment studying/applying new spectroscopic X-ray sensors for nutritional characterization and labelling of sliced dry-cured ham. During her scientific career, she has participated in 6 European projects (Q-meat, Truefood, Q-porkchains, FoodSME-hop, Procured, Faim-cost), 8 national competitive projects (leading two of them: Soltexham and Classham) and 15 private contracts/services with companies. She is co-author of more than

30 scientific publications, 12 book chapters, and she has contributed with more than 50 communications in scientific conferences. She is also associated professor at the University of Girona teaching the subject Culinary and new technologies in the Degree of Innovation and food safety. She has supervised 2 PhD students (one of them awarded with the best prize in Engineering 2012). She has a patent licensed related to the optimization of dry-cured ham processing using non-destructive technologies.

Part C. Relevant accomplishments

C.1. Publications (from 2008 to 2018)

1. **Fulladosa, E**., Austrich, A., Muñoz, I., Guerrero, L., Benedito, J., Lorenzo, J. M., & Gou, P. (**2018**). Texture characterization of dry-cured ham using multi energy X-ray analysis. Food Control, 89, 46-53. doi:https://doi.org/10.1016/j.foodcont.2018.01.020
2. Pérez-Santaescolástica, C., Carballo, J., **Fulladosa, E**., Garcia-Perez, J. V., Benedito, J., & Lorenzo, J. M. (**2018**). Effect of proteolysis index level on instrumental adhesiveness, free amino acids content and volatile compounds profile of dry-cured ham. Food Research International, 107, 559-566. doi:https://doi.org/10.1016/j.foodres.2018.03.001
3. **Fulladosa, E**., Rubio-Celorio, M., Skytte, J. L., Munoz, I., & Picouet, P. (**2017**). Laser-light backscattering response to water content and proteolysis in dry-cured ham. Food Control, 77, 235-242. doi:10.1016/j.foodcont.2017.02.001
4. **Fulladosa, E.,** Gou, P., & Munoz, I. (**2016**). Effect of dry-cured ham composition on X-ray multi energy spectra. Food Control, 70, 41-47. doi:10.1016/j.foodcont.2016.05.025
5. Rubio-Celorio, M., **Fulladosa, E**., Garcia-Gil, N., & Bertram, H. C. (**2016**). Multiple spectroscopic approach to elucidate water distribution and water-protein interactions in dry-cured ham after high pressure processing. Journal of Food Engineering, 169, 291-297. doi:10.1016/j.jfoodeng.2015.09.008
6. **Fulladosa, E**., Munoz, I., Serra, X., Arnau, J., & Gou, P. (**2015**). X-ray absorptiometry for non-destructive monitoring of the salt uptake in bone-in raw hams during salting. Food Control, 47, 37-42. doi:10.1016/j.foodcont.2014.06.023
7. **Fulladosa, E**., de Prados, M., García-Perez, J. V., Benedito, J., Muñoz, I., Arnau, J., & Gou, P. (**2015**). X-ray absorptiometry and ultrasound technologies for non-destructive compositional analysis of dry-cured ham. Journal of Food Engineering, 155, 62-68. doi:http://dx.doi.org/10.1016/j.jfoodeng.2015.01.015
8. Muñoz, I., Rubio-Celorio, M., Garcia-Gil, N., Guàrdia, M. D., & **Fulladosa, E**. (2015). Computer image analysis as a tool for classifying marbling: A case study in dry-cured ham. Journal of Food Engineering, 166, 148-155. doi:http://dx.doi.org/10.1016/j.jfoodeng.2015.06.004
9. Santos-Garcés, E., Laverse, J., Gou, P., **Fulladosa, E.,** Frisullo, P., & Del Nobile, M. A. (**2013**). Feasibility of X-ray microcomputed tomography for microstructure analysis and its relationship with hardness in non-acid lean fermented sausages. Meat Science, 93(3), 639-644. doi:http://dx.doi.org/10.1016/j.meatsci.2012.11.027
10. Gou, P., Santos-Garcés, E., Hoy, M., Wold, J. P., Liland, K. H., & **Fulladosa, E**. (**2013**). Feasibility of NIR interactance hyperspectral imaging for on-line measurement of crude composition in vacuum packed dry-cured ham slices. Meat Science, 95(2), 250-255. doi:http://dx.doi.org/10.1016/j.meatsci.2013.05.013

C.2. Research Projects and Grants

Competitive national projects:

1. Project Title: Caracterización y detección objetiva de defectos de textura en jamón curado mediante tecnologías no destructivas. Desarrollo y evaluación de medidas correctoras. (SOLTEXJAM - RTA2013-00030-C03-01)
Funding body: INIA Call: INIA Projects
From: 02/10/2014 to: 02/04/2018

Funding amount: 95.039,98 €
Main researcher: Elena Fulladosa. (IRTA) Participation: Main researcher and coordinator

2. Project Title: Optimización y control de la calidad sensorial, nutricional y organoléptica de jamones serranos e ibéricos. (RTA2010-00029-C04-01)
Funding body: INIA Call: INIA Projects
From: 25/10/2010 to: 25/10/2014
Funding amount: 100.000,8 €
Main researcher: Jacint Arnau. (IRTA) Participation: Researcher

Competitive European projects:

3. Project Title: Optimization of the salting process for the production of healthier and higher quality dry-cured meat products with reduced and more standardized salt content – PROCURED
Funding body: EU Call: Unión Europea. FP7-SME-2013-605608-PROCURED
From: 01/1/2013 to: 31/12/2015
Funding amount: 1.036.999,99 € (207.668,75 € IRTA)
Main researcher: Xavier Serra (IRTA) Participation: Researcher

4. Project Title: Helping EU processors become competitive using automated and non-contact pigmeat piece quality classification - (Q-MEAT)
Funding body: EU Call: Unión Europea. FP7-SME-2011-286487-QMEAT
From: 01/1/2012 to: 01/06/2014
Funding amount: 1.098.098,60 € (208.385,78 € IRTA)
Main researcher: Xavier Serra (IRTA) Participation: Researcher

5. Project Title: Optimizing and standardizing non-destructive imaging and spectroscopic methods to improve the determination of body composition and meat quality in farm animals - FAIM - Action FA1102
Funding body: EU Call: FAIM-COST ACTION
From: 01/1/2011 to: 31/12/2015
Funding amount: 400.000 €
Main researcher: Lutz Bunger (SAC). Maria Font (IRTA) Participation: Researcher

6. Project Title: Improving the quality of pork and pork products for the consumer. Development of innovative, integrated, and sustainable food production chains of high quality pork products matching consumer demands (Q-PORKCHAINS).
Funding body: European Commission.
From 01/01/2007 to 31/12/2010 Funding amount: 649.051 €.
Main researcher: Jacint arnau Participation: researcher

7. Project Title: Traditional United european food (TRUEFOOD) FOOD-CT-2006-016264.
Funding body: European Commission; Call: Sixth RTD Framework Programme
From: 01/01/2006 to 31/12/2009 Funding amount: 5.893.863 €.
Main researcher: Pere Gou Participation: researcher

C.3. Contracts:

1. Contract title: Sensorización con NIR del proceso de producción de productos emulsionados cocidos tipo Frankfurt para la evaluación de la calidad y la composición.
Company: Incarlopsa
Main researcher: Elena Fulladosa
From: RESOLUTION PENDING Funding amount: 42.100 Euros

2. Contract title: Desarrollo de nuevos sistemas inteligentes para productos cárnicos curados mediante la sensorización integral y la aplicación de IoT, machine learning y big data.
Company: Jamones Segovia s.a; Secaderos de Almaguer; Cecinas Pablo, s.a
Main researcher: Elena Fulladosa

From: RESOLUTION PENDING Funding amount: 82.900, 93.000 y 41.700 Euros

3. Contract title: Optimización de la homogeneidad del producto y reducción de salmueras residuales en la industria elaboradora de jamón curado.
Company: Noel, s.a; Boadas, s.a Main researcher: Elena Fulladosa
From: 1/10/2018 To: 30/09/2020 Funding amount: 59.200 Euros

4. Contract title: Desarrollo de un nuevo proceso de salado individual para la obtención de jamón curado al punto de sal con textura y color óptimos (Smartham).
Company: Jamones Segovia; s.a. Main researcher: Elena Fulladosa
From: 30-11-2015 to: 31-06-2018 Funding amount: 51.500 Euros

5. Contract title: Study of salt diffusion in dry-cured ham using computed tomography.
Company: Secaderos de Almaguer s.a. Main researcher: Elena Fulladosa
From: 01-01-2015 to: 31-03-2015 Funding amount: 15.100 Euros

6. Contract title: Indagación en tecnologías avanzadas de inspección para la industria cárnica (iTAC)
Company: IRTA, SADA, Multiscan technologies, s.l, Industrias cárnicas el Rasillo)
Main researcher: Elena Fulladosa
From: 28/02/2013 to: 31/12/2015 Funding amount: 85.000 Euros

7. Contract title: Indicadores para el Salado de Jamones (JASAL)
Company: 4 SME
Main researcher: MD Guardia Participation: Researcher
From: 11-21-2011 to: 31-12-2013 Funding amount: 247.00 Euros

C.4. Patents and other IPR

Authors: Arnau, J., Comaposada, J., Gou, P., Serra, X., Fulladosa, E. y Muñoz, I.
Title: Preparation process of pieces of whole muscle cured raw meat products (Procedimiento de elaboración de piezas de productos cárnicos crudos curados de músculo entero). Reference number: ES20110031619 20111007
Priority country: España Date: 07/10/2011 Holder entity: IRTA

C.5 PhD THESIS supervisor

Title: Applications of computed tomography in dry-cured meat products
pHD student: Eva Santos-Garcés University: Universitat de Girona.
Date: 2008 – 2012 (Defense: 29/06/2012) ***Award to the best pHD thesis in 2012***

Title: Technologies to determine quality parameters and the effect of high pressure processing on dry-cured ham. pHD student: Marc Rubio Celorio
University: Universitat de Girona Date: 2011-2015 (Defense: 09/07/2015)

Title: Characterization and correction of texture defects in dry-cured ham using emergent technologies. pHD student: Elena Coll Brasas
University: Universidad de Zaragoza Date: 1/05/2016 – Expected Defense: may 2020)

Title: Salt content homogenization during dry-cured ham production using non-destructive technologies. pHD student: Eva Torres
University: University of Girona Date: 12/09/2018 – Expected Defense: 2021

C.6 Other merits

Participation in the scientific committee in the 21st International Drying Symposium held in the University Polytechnic of Valencia from 11 to 14 September 2018.