

## LAURA CAVALLARIN

born in Torino, Italy, 25<sup>th</sup> May 1968

### Education

1991. Degree in Biology *cum laude*, University of Torino, Italy.

### Professional Experience Record

2012 – present.

Coordinator, Torino Research Unit, Institute of the Science of Food Production (ISPA) – CNR, Torino, Italy.

2001 – present.

ISPA – CNR, Torino, Italy. Researcher, permanent position.

1998 –2001.

ISPA – CNR, Torino, Italy. Fellow and researcher, temporary position.

1993 - 1997.

Department of Molecular Genetics, CSIC, Barcelona, Spain. Graduate fellow and researcher, temporary position. Spanish Foreign Affairs Ministry grants and EU "Human Capital and Mobility" and "Biotechnology" programmes funding, contract CT93-0490 and BIO4-CT96-5053.

September 1992 - March 1993.

Institute of Applied Phytovirology-CNR, Torino, Italy. Trainee.

March 1992- September 1992.

John Innes Institute for Plant Biology, Norwich, U.K . Trainee.

### Key Qualifications

2010 – present. *Responsible for the CNR research line AG.P05.0012* "Integrated technology platform supporting the quality of typical food production chains of Northern Italy".

*Principal Investigator* in the following projects:

"Improvement of Banked Human Milk Quality" - Fondazione CRT (2014-2015).

"Biochemical characterization of diets for preterms infants" - Consultancy agreement with "Città della Scienza e della Salute di Torino" (2014).

"Fortilat - Setting up of a human milk fortifier, based on donkey milk" - POR-FESR 2007-2013: (2012-2014).

"Donkey Milk –Production of a nutritional supplement derived from donkey milk for neonates and infants" POR-FESR 2007-2013 (2012-2013).

"Protein profile of pasteurized bank human milk" - AIBLUD (Italian Human Milk Banks Association) (2008-2009).

"Effect of prolonged refrigeration on human milk quality" AIBLUD (2011);

"New technologies for controlling aerobic deterioration and zearalenone contamination in maize silage"- Regione Piemonte (2005-2006).

"The poultry production chain in Piemonte: Ochratoxin A (OTA) contamination and identification of a marker for organic livestock production" Regione Piemonte (2003-2004).

CNRG0039EB "Role of tannins as protein protection agents during ensiling of forages" - Agenzia 2000- CNR Young Scientists funding program (2001-2003).

*Responsible for CNR activities in the following projects:*

“14IND11 HIT - Metrology for Humidity at High Temperatures and Transient Conditions” – EURAMET –EMPIR (2014-2017).

“Occurrence and contamination level by *Listeria monocytogenes* in farm silages and effect on the Gorgonzola cheese quality”- Regione Piemonte (2007-2010).

“Evaluation of aflatoxins contamination in the dairy production chain -Study on aflatoxins carry-over from milk to cheese” - Regione Piemonte (2005-2007).

“Effect of area of production and farm management on Grana Padano cheese quality” - Regione Piemonte (2005-2007).

## **Specific Experience**

*Food and feed chemistry and biochemistry.* Effect of environment, production processes and technology treatments on food and feed quality. *In vitro/in vivo* assessment of food/feed nutritional value.

## **Teaching**

Single classes taught:

2003 – present. In the Animal Nutrition Course of the Degree in Veterinary Medicine, University of Torino, in the Forage Production and Conservation Course of the Degree in Animal Production, University of Torino, to PhD students, at the Postgraduate School of Specialization in Animal Health and Livestock Production, Department of Veterinary Science, University of Torino.

Co-tutor of 1 thesis at the Degree of Food Science and Human Nutrition, University of Torino (2012-2013)

Co-tutor of 1 thesis at the Degree of Biomedical Techniques, University of Torino (2011-2012)

Co-tutor of 1 thesis at the Degree of Food Science and Human Nutrition, University of Torino (2010-2011)

Co-tutor of 2 thesis at the Degree in Veterinary Medicine, University of Torino (2006-2007).

Co-tutor of 1 thesis at the Degree in Animal Production, University of Torino (2005).

Tutor of: 1 CNR fellowship, stages of graduate students of Degree of Food Science and Human Nutrition and Degree of Biology, stages for secondary school students.

## **Evaluation Activity**

2014 - 2015 Ministero per lo Sviluppo Economico, Italy - Expert for the evaluation of proposals of Call “Fondo Crescita Sostenibile - Progetti di R&S negli ambiti tecnologici di Horizon 2020”. Evaluation of R&D projects funding Large Enterprises and SME. Rapporteur for evaluation of proposal n. 244.

2014 European Commission - Expert for the evaluation of COST Open Call Proposal n. oc-2014-1-18221.

2013 European Commission- Directorate General for Research & Innovation, RTD E-Biotechnologies, Agriculture, Food. – FP7 – Expert for the evaluation of Contract KBBE 265702 – Mid-term remote and In situ evaluation (total: 6 days evaluation).

2009 - 2011 Member of the Scientific committee of the “Polo di Innovazione Agroalimentare – Agrifood Cluster”, Regione Piemonte, Italy – Evaluation of TT and research projects proposals by SME in collaboration with academia.

2004 – present. Member of evaluation committees for the temporary hiring of young research personnel at CNR.

2011 - present. In the List of reviewers of the Italian Ministry of Agriculture and Ministry of Education and Research.

Peer reviewer for PLOS - ONE, Journal of the Science of Food and Agriculture, Journal of Agricultural and Food Chemistry, Food Additives and Contaminants, Journal of Applied Microbiology, International Dairy Journal.

## Language Skills

English. Certificate of Proficiency in English (CPE), issued by the University of Cambridge, ESOL (English for Speakers of Other Languages) examinations, UK – C2 level, Common European Framework of Reference for Languages.

Spanish. Very fluent in both spoken and written language.

French. Basic knowledge of the spoken language.

## International Activities

May - June 2014. CNR Short - Term Mobility Grant - Dr. Amy McLean, North Carolina State University, US, at ISPA UOS Torino – Research Project: “Relationship between milk composition, metabolic profile, welfare status, and body condition score in dairy donkeys.”

February 2007. CIRDES – Bobo Dioulasso, Burkina Faso . International Cooperation. Project title “Improvement of livestock production in peri-urban sites in Bobo Dioulasso and Nouna, Burkina Faso”

November 2007. Universidade de Sao Paulo Escola Superior de Agricultura “Luiz de Queiroz” Piracicaba,, SP, Brasil. CNR Short-term Mobility fellowship – Project title: “Ensiling of tropical forage for dairy farms”.

## Patents and Selected Publications

Cavallarin L., Bertino E., Giribaldi M., Antoniazzi S., Coscia A, Gariglio GM. Continuous flow pasteurizer for small amounts of liquid food. Patent application: EP 15176792.8-1358 (2014) – Patent holders: CNR, Università di Torino, Giada s.a.s.

Bertino E., Cavallarin L., Conti A., Moro G.E. Food Composition. Patent application: WO2015056166 (A1)-20150423 - Patent holders: CNR, Università di Torino, Conti A., Moro G.E.

Cavallarin L., Giribaldi M, Soto-Del Rio MD, Valle E, Barbarino G, Gennero MS, Civera T.(2015). A survey on the milk chemical and microbiological quality in dairy donkey farms located in NorthWestern Italy. *Food Control*, 50:230-235.

Valerio F. Lonigro S. L., Giribaldi M., Di Biase M., De Bellis P., Cavallarin L., Lavermicocca P. (2015) Probiotic *Lactobacillus paracasei* IMPC 2.1 strain delivered by ready-to-eat swordfish fillets colonizes the human gut after alternate-day supplementation. *Journal of Functional Foods*, 17: 468-475

Cavallarin, L.\*, Antoniazzi, S., Giaccone, D., Tabacco, E., Borreani, G. (2014). Transfer of aflatoxin M1 from milk to ripened cheese in three Italian traditional production methods. *Food Control*, 38: 174-177.

Pozzo L., Salamano G., Mellia E., Gennero M.S, Doglione L., Cavallarin L., Tarantola M., Forneris G, Schiavone A (2013). Feeding a diet contaminated with Ochratoxin A for chickens at the maximum level recommended by the EU for poultry feeds (0.1 mg/kg). 1. Effects on growth and slaughter performance, haematological and serum traits, *Journal of Animal Physiology and*

- Pozzo L., Cavallarin L.\*, Antoniazzi S., Guerre P., Biasibetti E., Capucchio M.T., Schiavone A. (2013) Feeding a diet contaminated with Ochratoxin A for broiler chickens at the maximum level recommended by the EU for poultry feeds (0.1 mg/kg). 2. Effects on meat quality, oxidative stress, residues and histological traits. *Journal of Animal Physiology and Animal Nutrition*, 97: 23–31.
- Giribaldi M., Ortoffi M.F., Giuffrida M.G., Gastaldi D., Peila C., Coscia A., Raia M., Arslanoglu S., Moro G.E., Cavallarin L.\*, Bertino E. (2013) Effect of prolonged refrigeration on the protein and microbial profile of human milk. *International Dairy Journal*. 31:121-6.
- Bertino E., Giribaldi M., Baro C., Giancotti V., Pazzi M., Peila C., Tonetto P., Arslanoglu S., Moro G.E., Cavallarin L.\*, Gastaldi D. (2013). Effect of prolonged refrigeration on the lipid profile, lipase activity and oxidation status of human milk. *Journal of Pediatric Gastroenterology and Nutrition* 56: 390-6.
- Giribaldi M., Cavallarin L., Baro C., Di Nicola P., Coscia A., Bertino E. (2012). Biological and nutritional aspects of human milk in feeding of preterm infants. *Food and Nutrition Sciences*, 3: 1682-1687.
- Giribaldi M., Purrotti M., Pacifico D., Santini D., Mannini F., Caciagli P., Rolle L., Cavallarin L., Giuffrida M.G.\*, Marzachi C. (2011) A multidisciplinary study on the effects of phloem-limited viruses on the agronomical performance and berry quality of *Vitis vinifera* cv. Nebbiolo. *Journal of Proteomics* 75:306-15.
- Pozzo L, Cavallarin L\*, Antoniazzi S., Nucera D., Schiavone A. (2010) A survey of ochratoxin A contamination in feeds and sera from organic and standard swine farms in northwest Italy. *Journal of the Science of Food and Agriculture* 90:1467-1472.
- Tabacco E., Piano S., Cavallarin L., Bernardes T.F., Borreani G. (2009) Clostridia spore formation during aerobic deterioration of maize and sorghum silages as influenced by *Lactobacillus buchneri* and *Lactobacillus plantarum* inoculants. *Journal of Applied Microbiology* 107:1632-1641.
- Cavallarin L.\*, Borreani G. (2008) Effect of the stage of growth, wilting and inoculation in field pea (*Pisum sativum* L.) silages. III. Changes in the herbage and silage protein profiles. *Journal of the Science of Food and Agriculture* 88:237-241.
- Borreani, G.; Tabacco, E.; Cavallarin, L. (2007). A new oxygen barrier film reduces aerobic deterioration in farm-scale corn silage. *Journal of Dairy Science* 90: 4701-4706.
- Tabacco, E.; Borreani, G.; Crovetto, G. M., Galassi, G, Colombo, D, Cavallarin, L. (2006) Effect of chestnut tannin on fermentation quality, proteolysis, and protein rumen degradability of alfalfa silage. *Journal of Dairy Science* 89: 4736-4746.

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