

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s)	Marilù Decimo
Address(es)	82 Forleo rd, 72022, Latiano (BR), Italy
Telephone(s)	Mobile: +39340 3641778
E-mail(s)	marilu.decimo@ispa.cnr.it / mariludecimo@gmail.com
Nationality	Italian
Date of birth	08.09.1985
Gender	Female

Desired employment / Occupational field

Researcher /Food biologist

Work experience

Dates	November 2015 onwards
Occupation or position held	Voluntary worker
Main activities and responsibilities	Study of antimicrobials produced by LAB having the potential to inhibit milk-spoilage microorganisms, especially <i>Pseudomonas</i> species and and <i>Serratia marcescens</i> strains
Name and address of employer	Institute of Sciences of Food Production, National Research Council (ISPA-CNR) 2 Celoria rd, 20133, Milan, Italy
Type of business or sector	Microbiological and chemical research
Dates	February 2014 – October 2015
Occupation or position held	(temporary) Research fellow
Main activities and responsibilities	Selection of lactic acid bacteria: inhibitors of <i>S. aureus</i> and/or <i>Listeria monocytogenes</i> , producers of folate and conjugated linoleic acid (CLA) and reducers of cholesterol within the FILAGRO project "Filagro: innovative and sustainable strategies for the agro-food chain" Line 11: Milk and cheese quality
Name and address of employer	Institute of Sciences of Food Production, National Research Council (ISPA-CNR) 2 Celoria rd, 20133, Milan, Italy
Type of business or sector	Microbiological and biochemical research
Dates	October 2013 – January 2014
Occupation or position held	Voluntary worker

Main activities and responsibilities	RAPD Typing and evaluation of antibiotic resistance of eighty psychrotrophic bacteria isolated from bovine raw milk samples; characterization of extracellular proteases by SDS-page and evaluation of extracellular caseinolytic activity by casein zymography of <i>Pseudomonas fluorescens</i> strains.
Name and address of employer	Institute of Sciences of Food Production, National Research Council (ISPA-CNR) 2 Celoria rd, 20133, Milan, Italy
Type of business or sector	Microbiological, biochemical and food safety research
Dates	April 2013 - August 2013
Occupation or position held	PhD Researcher abroad within Lifelong Learning Programme 2012-2013 - Erasmus Student Placements, University of Milan
Main activities and responsibilities	SPME gas chromatography-mass spectrometry (GC/MS) characterization of volatile compounds in milk contaminated with five different psychrotrophic bacteria and determination of lipolytic activity of 15 psychrotrophic strains by means of GC/MS of free fatty acids (FFAs) from cream.
Name and address of employer	Department of Nutrition, Bromatology and Food Technology, Faculty of Veterinary, 28040 Madrid, Spain.
Type of business or sector	Chromatographic analysis, off-flavours/odours, sensory analysis
Dates	October 2011 - October 2013
Occupation or position held	(temporary) Research fellow
Main activities and responsibilities	Microbiological analysis of raw milk samples by cultural methods and molecular biology within the EULAT project "Identification of models of farms producing milk and dairy products of high quality"
Name and address of employer	Institute of Sciences of Food Production, National Research Council (ISPA-CNR) 2 Celoria rd, 20133, Milan, Italy
Type of business or sector	Microbiological research, milk quality
Dates	February 2011 – September 2011
Occupation or position held	Internship
Main activities and responsibilities	Microbiological analysis and application of methods for phenotypic, genotypic and technological development of microbial populations in fermented products (dairy products, salami); selection, characterization and use of populations of microorganisms to improve the quality and for innovation of traditional foods.
Name and address of employer	Institute of Sciences of Food Production, National Research Council (ISPA-CNR) 2 Celoria rd, 20133, Milan, Italy
Type of business or sector	Microbiology and molecular biology
Dates	January 2010 – October 2010
Occupation or position held	Internship
Main activities and responsibilities	Preparation of liquid and solid culture media, preparation of samples for microbiological analysis, bacteriological analysis of foods, beverages and ambient water, determination of pH and water activity, controls on food processing environments (examination of ambient air, water and surfaces of processing).
Name and address of employer	Regional Environmental Protection Agency(ARPA), 16 Galanti rd, 72100, Brindisi Italy
Type of business or sector	Biology of foods, solid matrices and water
Dates	March 2008 – July 2008
Occupation or position held	Internship
Main activities and responsibilities	DNA analysis of native specimens of <i>Mytilus galloprovincialis</i> species for assessing the genotoxicity of marine and coastal waters of the coast of Brindisi.
Name and address of employer	Laboratory of General and Environmental Physiology, University of Salento, Campus Ecotekne, Monteroni rd, 73100, Lecce, Italy.
Type of business or sector	General and Environmental Physiology

Education and training

Dates	December 2011 - December 2014
Title of qualification awarded	Graduate School in Molecular Sciences and Plant, Food and Environmental Biotechnology, PhD in Food Science, Technology and Biotechnology
Principal subjects/occupational skills covered	<p>Thesis Title "Bacterial enzymatic activities as potential markers for assessing the technological properties of (un)processed milk"</p> <ul style="list-style-type: none">- Isolation of 80 psychrotrophic strains and characterization of hydrolytic activities- Evaluation of spoilage potential by analyzing the production of VOCs and the release of FFAs- Characterization of extracellular proteolytic activity of <i>Pseudomonas fluorescens</i> strain (extracellular caseinolytic activity, proteomic analysis of crude proteolytic enzyme extract, characterization of peptidic profile from hydrolysis of milk casein fractions by thermostable protease)
Name and type of organisation providing education and training	Department of Food, Environmental and Nutritional Sciences (DeFENS), University of Milan, Italy
Level in national or international classification	ISCED 6
Dates	March 2011
Title of qualification awarded	Approval for the biologist profession
Name and type of organisation providing education and training	University of Salento, Lecce, Italy
Dates	September 2008 – October 2010
Title of qualification awarded	Master of Science in Biology, specialization "Biology of Food and Nutrition"
Principal subjects/occupational skills covered	<ul style="list-style-type: none">- Promotion and development activities of scientific and technological innovation, management and design activities of the technologies in the fields of human nutrition and quality and safety food;- Professional and project activities in fields related to biological disciplines, in industry, agriculture, health and public administration areas, with particular regard to the understanding of biological phenomena at all levels and to the diffusion and use of this knowledge in biological and microbiological laboratories, in biological and quality control of foods, in the biological and biochemical applications in the food and nutrition area. <p>Degree thesis: "Assessment of microbiological quality of grated cheese packaged in modified atmosphere".</p>
Name and type of organisation providing education and training	University of Salento, Lecce, Italy
Level in national or international classification	ISCED 5
Dates	September 2004 – July 2008
Title of qualification awarded	Bachelor of Sciences in Biology
Principal subjects/occupational skills covered	<ul style="list-style-type: none">- A good knowledge (at the molecular, cellular, organ and population level) of the different areas of biology;- Basic knowledge in the fields of mathematics, statistics, chemistry, physics and computer science, aimed to understand the various aspects of biology;- Good knowledge of the methods of scientific inquiry;- Ability to consult library materials, database and other information on the web;- Capacity of assessment and interpretation of experimental data in the laboratory. <p>Degree thesis: "Comet assay on hemolymph cells of <i>Mytilus galloprovincialis</i>".</p>

Name and type of organisation providing education and training

University of Salento, Lecce, Italy

Level in national or international classification

ISCED 5

Personal skills and competences

Mother tongue(s)

Italian

Other language(s)

Self-assessment

European level (*)

English

Spanish

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2 Independent user	C1 Proficient user	B1 Independent user	B2 Independent user	C1 Proficient user

(*) Common European Framework of Reference for Languages

Social skills and competences

- Good communicative and teaching skills
- Good skills to maintain interpersonal and intercultural relationships

Organisational skills and competences

- Good skills of management and organization of a laboratory
- Developed attitude to team work

Technical skills and competences

- Determination of chemical-physical properties of milk and dairy products
- Microbiological analysis
- Techniques of molecular biology (RAPD, PCR, Species-specific PCR)
- Gas and liquid chromatography analysis: SPME-GC/MS, GC/MS, HPLC/MS.
- Electrophoretic techniques: SDS-PAGE, CASEIN ZYMOGRAPHY.
- Enzymatic digestion of bacterial proteases.

Computer skills and competences

Proficiency in Operating Systems, Word Processing, Spreadsheets, Database, Presentation, Information Networks, and excellent Internet skills for research and data collecting. Expert user of *free-software Comet Score*, Empower 3 chromatography data software, Proteome Discoverer 1.4 (Thermo), GC/MSD ChemStation Software, interrogation of genomic databases for researches of sequence homologies with BLASTA/FASTA.

Driving licence

B

Research activities

Research sectors

Microbiological, chemical, biochemical and molecular research

At the Institute of Sciences of Food Production, National Research Council (ISPA-CNR) of Milan, where I, the undersigned Dr. Marilù Decimo, work as voluntary worker from November 2015, the research activity is focused on microbiology of fermented foods, mainly milk and dairy products, and on application of molecular techniques for the selection and characterization of microbial populations and for the qualitative improvement in typical foods. Actually my research deals with the study of anti-pseudomonas and anti-serratia activity of antimicrobials produced by lactic acid bacteria (LAB) isolated from milk.

Project FILAGRO. Within the FILAGRO project “Filagro: innovative and sustainable strategies for the agro-food chain” I, the undersigned Dr. Marilù Decimo, selected lactic acid bacteria, producers of conjugated linoleic acid (CLA) from free linoleic acid (LA). The tests were performed in vitro and preliminarily in milk and dairy products. A total of 72 strains of lactic acid bacteria, belonging to different genera and species, was screened and the isomerization of LA to CLA was determined by gas chromatography. The functional activity of LAB was then verified in milk fermentations and cheesemaking experiments.

PhD thesis. The research activity of PhD in Food Biotechnology at University of Milan and ISPA – CNR, dealt with the isolation, genotypic identification, typing, study of the enzymatic activities, evaluation of antibiotic resistance, electrophoretic techniques (SDS-PAGE, CASEIN ZYMOGRAPHY) to characterize bacterial extracellular proteases, of raw milk associated psychrotrophic bacteria, gas and liquid chromatography analysis (SPME-GC/MS, GC/MS, HPLC/MS) of microbially contaminated milk samples, enzymatic digestion of bacterial proteases, proteomic analysis.

Project EULAT. Within the EULAT project “Identification of models of farms producing milk and dairy products of high quality” I, the undersigned Dr. Marilù Decimo, studied the microbiological and hygienic-sanitary quality of raw milk samples of three groups of farms (8-10 farms per group) of Lombardy. The analysis were performed on milk samples of single farm of each group; on milk samples of each group and on milk samples in boiler after natural surface skimming. The analyses were conducted twice during the year in different seasons (summer and winter). Each sample has been analyzed in relation to: Standard plate count (SPC), coliforms, *Escherichia coli*, psychrotrophic and thermophilic bacteria, *Pseudomonas*, coagulase-positive staphylococci, mesophilic and thermophilic lactic acid bacteria, anaerobic spore-forming bacteria.

M Zucali, L Bava, S Colombini, M Brasca, **M Decimo**, S Morandi, A Tamburini, GM Crovetto (2015) "Management practices and forage quality affecting the contamination of milk with anaerobic spore forming bacteria" *Journal of the Science of Food and Agriculture*. 95: 1294–1302.

M Decimo, S Morandi, T Silvetti, M Brasca (2014) "Characterization of Gram-negative Psychrotrophic bacteria isolated from bulk tank milk" *Journal of Food Science*. doi: 10.1111/1750-3841.12645.

Other publications

1 De Noni I, Brasca M, Battelli G, Cattaneo S, **Decimo M**, Masotti F, Morandi S, Pellegrino L, Ranghetti A, Silvetti T, Stuknyte M. (2013) Silter: autochthonous starters and typicality. Lombardy Region - Quaderni della ricerca n. 156.

2 Brasca M, Bava L, Zucali M, Tamburini A, Guerci M, Sandrucci A, Mattiello S, Andreoli E, Battini M, **Decimo M**, Morandi S, Battelli G, Povolo M, Pellizzola V, Passolungo L, Sanna M, Zanini L. (2014) Identification of models of farms producing milk and dairy products of high quality. Lombardy Region – Quaderni della ricerca n. 163.

Article in proceedings of international conference

F Manini, M Brasca, F Dal Bello, **M Decimo**, L Quaglia, D Erba, MC Casiraghi. "Wheat Bran Sourdough as a Functional Ingredient", 5^o Symposium on Sourdough Cereal Fermentation for Future Foods, Settembre, 2012, Helsinki, Finland - ISBN 9789513878757 - pp. 3-129.

G Battelli, T Silvetti, **M Decimo**, M Brasca (2011): "Volatile organic compounds produced in milk by *Enterococcus faecalis*", ISPA-CNR, 10th INTERNATIONAL Meeting on Mountain cheese, September, 2011, Dronero (CN), Italy, pp. 75-76.

Oral communication

- **Decimo M**, Bacterial enzymatic activities as potential markers for assessing the technological properties of (un)processed milk. In Proceedings of the 19th Workshop on the Developments in the Italian PhD Research on Food Science Technology and Biotechnology, University of Bari, Bari, 24-26 September, 2014, pp. 278-282.

Posters in national meetings

- Morandi S, Albano C, Battelli G, **Decimo M**, Silvetti T, Brasca M. Selection and use of lactic acid bacteria (LAB), producers of γ -aminobutyric acid (GABA), folate and conjugated linoleic acid (CLA) and reducers of cholesterol for the development of functional foods In abstracts of the Workshop "New scenarios in the food industry: the Functional Foods and Nutraceuticals" National Research Council, 14 October 2015, Milan, Italy.

- **Decimo M**, Cabeza MC, Ordonez JA, Silvetti T, Morandi S, Brasca M. Characterization of volatile organic compounds produced in milk by psychrotrophic bacteria. In abstracts of the 4th Dairy Meeting – AITeL, Milk and Dairy Products: Research and Innovation. Padova, 12 September 2014. (**Winning poster**).

- **Decimo M**. Bacterial enzymatic activities as potential markers for assessing the technological properties of (un)processed milk. XVIII **Workshop** on the Developments in the Italian PhD Research on Food Science Technology and Biotechnology, University of Padova, Conegliano, 25–27 September, 2013.

- Bava L, Zucali M, Sandrucci A, Guerci M, Battelli G, Brasca M, Povolo M, **Decimo M**, Tamburini A. How different farming systems can affect nutraceutical and traceable components of cow milk? XX Congresso Aspa – Animal Science and Production Association, Bologna, 11-13 June, 2013.

- Battelli G, Bava L, **Decimo M**, Mattiello S, Povolo M, Sanna M, Zanini L, Sandrucci A, Brasca M. Identification of models of farms producing milk and dairy products of high quality. In abstracts of the 3rd Dairy Meeting – AITeL, Milk and Dairy Products: Research and Innovation. Milano, 28 September 2012.

- Zucali M, Battelli G, **Decimo M**, Mattiello S, Povoio M, Sanna M, Zanini L, Guerci M, Tamburini A, Brasca M. Quality of milk and sustainability of farms in three different realities of Lombardy. In abstracts of the 3rd Dairy Meeting – AITeL, Milk and Dairy Products: Research and Innovation. Milano, 28 September 2012.

- **Decimo M**. *Bacterial enzymatic activities as potential markers for assessing the technological properties of (un)processed milk*. XVII **Workshop** on the Developments in the Italian PhD Research on Food Science Technology and Biotechnology, University of Cesena, 19-21 September, 2012.

Additional information

Workshops

Workshop “New scenarios in the food industry: the Functional Foods and Nutraceuticals” National Research Council, 14 October 2015, Milan, Italy.

Proteome Discoverer Workshop, 24 June 2015, Milan, Italy.

Workshop “Flow Cytometry Applications in Food and Water Microbiology”, Defens, Università di Milano, 11 Marzo 2014.

XIX Workshop on the *Developments in the Italian PhD Research on Food Science Technology and Biotechnology*, University of Bari, Italy, 24–26 September, 2014

XVIII Workshop on the *Developments in the Italian PhD Research on Food Science Technology and Biotechnology*, University of Padova, Conegliano, Italy, 25–27 September, 2013.

XVII Workshop on the *Developments in the Italian PhD Research on Food Science Technology and Biotechnology*, University of Bologna, Cesena, Italy, 19 -21 September 2012.

Meeting

“Research, Sustainability, and Innovation in New Foods” CNRxEXPO, Open Plaza EXPO Center, 21 October 2015, Milan.

7th European Farmhouse and Artisan Cheesemakers. Congress CONFERENCE: “FARMHOUSE CHEESEMAKING: TECHNICAL, ECONOMIC AND SOCIAL ASPECTS”, 15 October 2015, Milan.

“Research on dairy chain opens to the farms” (Programma Lombardy Dialogues), National Research Council, Lombardy Region, 25 September 2015, Milan.

“Setting a Model for a Sustainable Dairy Chain” (Programma Lombardy Dialogues), Conference Centre EXPO2015, 22 July 2015, Milan.

“GreenLight”: *new rapid method for microbiological control of milk and dairy products* c/o Astori Tecnica s.n.c., Poncarale (BS), Italy, 10 June 2015.

“TIPICAL PRODUCTS: a contradiction or an expectation for the agriculture and the agro-food “Made in Italy?” CNRxEXPO, Cascina Triulza - Pad. Società Civile, 6 May 2015, Milan.

“The new frontiers of the transformation of milk whey: from cost to added value” Centro Congressi Fondazione Stelline, Milan, 2 december 2014.

“Ensuring the food security, improving productions: new strategies to contain pathogens in food”, Regione Lombardia, Milan, 19 november 2014.

“Global quality: a proposal for the improvement of dairy herds and valorization of production”, Internation exhibition of milk bovine. Cremona, Italy, 23th October 2014.

4rd Dairy Meeting: *Milk and Dairy Products: Research and Innovation*. Legnaro, Padova, Italy, 12 September 2014.

Focus Meeting Food “*Microbiological risks in agro-food chain: innovative solutions for more efficient answers*”, Biomerièux, Milan, November, 2013.

“*Technological valorization of native microorganisms of Silter cheese*” University of Mountain, Edolo (BS), September, 2013.

2° Congreso International en Seguridad Alimentaria – ACOFESAL, Faculty of Medicine, Complutense University of Madrid, 19-21 June, 2013.

VII Congreso Nacional de Investigación en Ciencias de la Salud, Faculty of Pharmacy, Complutense University of Madrid, 11-13 April, 2013.

XII Congreso de Ciencias Veterinarias y Biomédicas, Faculty of Pharmacy, Complutense University of Madrid, 11-13 April, 2013.

“*The Science is on the Table: Biological Resources and Innovative Technologies for Sustainable Development of the Agro-Food System*”, Milan, Italy, January 2013.

“*Global solutions in microbiology: efficacy and safety in food control*”, Biomerièux, Milan, Italy, December 2012.

3rd Dairy Meeting: *Milk and Dairy Products: Research and Innovation*. Milan, Italy, 28th September 2012.

“*Food safety: rapid methods and automation in the microbiology laboratory*”, Biomerièux, Milan, Italy, May 2012.

“*Dairy Production in Mountain: farming systems, milk and cheese quality and implications for the future*”, 10th INTERNATIONAL Meeting on Mountain cheese, September, 2011, Dronero (CN), Italy.

“*Technologies for fresh and convenience food*”, Milan, Italy, June 2011.

“Valorisation of typical and traditional dairy products”, University of Milan, Italy, May 2011.

“Milk of mountain pasture for the Formaggella of Valle di Scalve”, Vilminore di Scalve, BG, Italy, May 2011.

“Food sustainability and safety”, University of Milan, Italy, February 2011.

Other courses

Course “General formation of workers”, Milan, November, 2013.

Seminar “Enzimas en la industria láctea y avances en el desarrollo de cultivos para leche fermentada” Chr. Hansen, Faculty of Veterinary, Complutense University of Madrid, May, 2013.

Course of formation and information on security: biological risk, biowaste management, personal protective equipment (PPE) in biological laboratory, Milan, March, 2013.

Course of formation and information on security: chemical risk, chemical waste management, personal protective equipment (PPE) in chemical laboratory, Milan, March, 2013.

Course “From calibration to the limit of detection” University of Milan, February, 2013.

Course “Food physical chemistry”, University of Milan, February, 2013.

Seminar “From Genome to Proteome and back”, University of Milan, February, 2013.

Course “General financial overview”, University of Milan, February, 2013.

Seminar “African rice varieties: nutritional properties and technological perspectives”, Milan, January 2013.

Seminar “Lactic acid bacteria and probiotics: studies of INLAIN”, Lodi, Italy, May 2012.

Training course “European Marathon of technical- scientific information and education on food safety” 3M Italy S.p.A., Pioltello, Milan, May 2011.

Refresh course for biologists, “Nutritional aspects and pathological clinical conditions: relevance and therapeutic possibilities”, Lecce, Italy, June 2010.

La sottoscritta dichiara di essere a conoscenza della sanzioni previste dal d.P.R. n. 445/2000 in caso di dichiarazioni mendaci.
La sottoscritta esprime il proprio consenso al trattamento dei dati personali ai sensi dell'art. 11 L. 675/96.

Signature

