Curriculum Vitae et Studiorum of Dr. Vincenzina Fusco

PERSONAL INFORMATION

Family name: Fusco
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PRESENT POSITION

Permanent position as **Senior Scientist** at the Institute of Sciences of Food Production - National Research Council of Italy (CNR - ISPA) (non-profit public body/governative research organization; http://www.ispa.cnr.it), Via Amendola 122/O, Bari, 70126, Italy.

EDUCATION

- 2005: Ph.D. in Sciences and Technologies of Food Productions, Division of Microbiology, Department of Food Science, *University of Naples Federico II*, Via Università 100, 80055, Portici (Naples) Italy. PhD thesis title: "Study of the native microflora during the production of fermented foods", tutor Prof. Salvatore Coppola. For 11 months of this PhD course, Vincenzina Fusco was research fellow (granted by the Department of Food Science of the University of Naples Federico II) at the Food Science Department of the *Cornell University* Ithaca, NY (USA), carrying out research activities on the Real-time PCR detection of *Staphylococcus aureus* using an integrated microfluidic platform, (as part of a project on Food Safety and Security Research Rapid Methods Development, supported by the FDA Grant #06000002499A) under supervision of Prof. Carl A. Batt.
- 2001: Achievement of the Italian Official Licence for the profession of Food Technologist.
- 2001: Magna cum Laude Master Degree in Food Science and Technology, Division of Microbiology, Department of Food Science, University of Naples Federico II, Portici (Naples) Italy. Degree thesis in Microbiology, entitled: "Microbiological aspects of Fior di Latte di Agerola cheese-making", tutor Prof. Salvatore Coppola.

TRAINING

- **December 14-16th, 2020:** participating at the Annual Workshop of the Laboratorio Nazionale di Riferimento per l'Antibioticoresistenza e del Centro di Referenza Nazionale per l'Antibioticoresistenza 2020, held on 14, 15 and 16 December 2020, in videoconferenza (superamento con punteggio 26/28 del questionario di apprendimento).
- May, 8-12th, 2017: participating in the Course 1 Microbiological risk assessment, funded by EU within the "Better training for safer food" (BTSF; http://ec.europa.eu/food/safety/btsf_en) held on 8-12th May, 2017 at NH Prague City Mozartova 261/1, 150 00 Prague 5 Czech Republic.
- **June, 15-17th, 2016:** participating in the course "DNA library preparation & Ion S5TM / Ion S5TM System Workflow with Ion One TouchTM" held on 15, 16 e 17 June 2016 at the CNR-ISP, Bari.
- **Genuary 12nd, 2012:** Participating in the on-line training course, Sym'Previus Online Demo, by M.L. Divanac'h, M. El Jabri & F. Postollec (ADRIA, Francia).
- **February, 13-14th, 2012:** Participation in the ""Professional Media Training Seminar for food and nutrition scientists" entitled "Bringing media and science together", within the project MAITRE-Media Actions for International Training of Researchers-, at CNR-ISPA, Bari, Via Amendola 122/O, 70126, Italy.
- **February 8-10th, 2010:** Achievement of the Course of "Statistics for the analysis of biological data", held by the Foundation for Biotechnology at the Molecular Biotechnology Center, Turin (Italy).
- **April 4th, 2010:** Participation in the seminar "Next generation Sequencing Technologies Enables New Applications" by Applied Biosystems at the CNR-ISPA, Via Amendola 122/o, 70126, Bari, Italy.
- **April 20-21st, 2009:** Achievement of the "Gene Mapper training course", by Applied Biosystems, at the CNR-ISPA, Via Amendola 122/o, 70126, Bari, Italy.
- **November 17-20th, 2008:** Achievement of the "51st International Basic training Workshop on Bionumerics and Gel Compare II" and "Analysis Day", held by Applied Maths, at the Applied Maths NV, Keistraat 120, B-9830 Sint-Martens-Latem, Belgium.
- **July 2-4th, 2008:** Achievement of the "Basic Real Time PCR Training Course", by Applied Biosystems, at the Mercure Hotel Roma Piazza Bologna, Via Reggio Calabria 54, 00161, Roma, Italy.
- **July 14-17th, 2005:** Achievement of the "2005 CNF short course: Technology & characterization of the nanoscale" at the Cornell Nanoscale Facility of the Cornell University, Ithaca, NY (USA).
- October 16th, 2004: Achievement of the TOEFL at the American Study Centre of Naples.
- July 24th, 2003: Achievement, with merit, of the KET (Key English Test).

PROFESSIONAL EXPERIENCE RECORD

January 2021-ongoing: Senior Researcher (III livello, Matricola 010565) (permanent position).

Main research tasks:

• Drafting of scientific papers/reports/opinions/position papers.

- Active member of National and International Scientific Associations/Societies.
- Scientific responsible of research fellows'
- Editorial board member of and reviewer for ISI indexed Journals.

December 2009-December 2020: Researcher (III livello, Matricola 010565) (permanent position).

Main research tasks:

- Drafting of scientific papers/reports/opinions/position papers.
- Invited speaker at National and International conferences/project/ meetings/workshops.
- Active member of National and International Scientific Associations/Societies.
- Participation as CNR-ISPA's scientific responsible, participant/principal investigator/task/sub-task leader in National (PON, laboratory networks, etc.) and EU FP6 and FP7 projects.
- Scientific responsible of research fellows', undergraduate, graduate and Ph.D. students.
- Editorial board member of and reviewer for ISI indexed Journals.
- Member of the Scientific Committee and Organizing Committee for International conferences.
- Member of scientific committees to grant research fellowships at CNR-ISPA.
- Instructor for National professional courses on "Food safety: operational procedures and regulations", on "Meat-borne microbial pathogenic bacteria diagnostics" and for an International training workshop on "Toxigenic fungi and pathogenic bacteria in food chain".

October 2007-November 2009: researcher (temporary position) (grants achieved by winning a public competition) for research activities within the EU-FP6 project N. COOP-CT2005-031918 "Ferbev"- "Improving the processing of four fermented beverages from Eastern European Countries" and National projects (funded by the Italian Ministry of University and Research) CaseoProBio (genetic and technological characterization of indigenous lactic acid bacteria for their exploitation in traditional giuncata and caciotta leccese cheeses) and Panti - "Improving the organoleptic, nutritional and health properties of Italian typical breads, at CNR-ISPA (Bari, Italy).

June 2006-September 2007: Grant at CNR-ISPA (Bari, Italy) for research activity on the MUR project Panti -Improving the organoleptic, nutritional and health properties of Italian typical breads-. In charge for the development and application of molecular methods to monitor autochthonous lactic acid bacteria strains used as sourdough starters. Reporting. Dissemination.

December 2005-May 2006: Grant (achieved by winning a public competition) for research activities within the National Project funded by (2005-2006) - Technological innovation of the water buffalo cow chain selection of autochthonous lactic acid bacteria and yeasts to be used starter for the production of cow buffalo milk-based products.

November 2004-October 2005: Visiting fellow (granted by the Department of Food Science of the University of Naples Federico II) at the Food Science Department of the Cornell University, Ithaca, NY (USA) for research activity on the "Real-time PCR detection of *Staphylococcus aureus* using an integrated

microfluidic platform" (within the project "Food Safety and Security Research–Rapid methods Development", supported by the FDA Grant #06000002499A), under supervision of Prof. Carl A. Batt.

- July 2002-January 2003: Grant (achieved by winning a public competition) of the Department of Food Science, University of Naples Federico II, for research activities within the National Project funded by MIUR (2002/2004) Quality, salubrity and Safety of some dairy products including two main areas of research: SIFORTI (Safety of typical Italian Cheeses) and GEFORPASTA (Authenticity of stretched curd chesses). In charge for the SIFORTI research activities aimed at the monitoring of viable and viable but uncultivable (stressed or injured) pathogenic bacteria during the production of Grana Padano and Pecorino Romano cheese by using culture-dependent and independent nucleic acid-based methods. Co-tutoring of undergraduate students and instructor for the tutorial exercises (theoretical and practical) of the Prof. Coppola's course in General Microbiology.
- October 2001 July 2002: Carrying out at the Division of Microbiology, University of Naples Federico II, as volunteer under the supervision of Professor S. Coppola, research activities mainly relevant to the microbial food safety and quality of traditional fermented foods, also within the following two National Projects: PRIN 2001 (funded by MIUR)- Defining, by molecular methods, the structure of microbial communities occurring in fermented foods and the MIPAF National Project (D.M. 348/7303/2000 28.9.2000) "Exploitation and safeguarding of the autochthonous microflora of Italian dairy productions Cotutoring of undergraduate students and instructor for the tutorial exercises (theoretical and practical) of the Prof. Coppola's course in General Microbiology.

MAIN PROJECTS AND RELEVANT TASKS

- Multi-Disciplinary Training Programme "Sciences for DIPLOMAzia (May-November 2014) –
 (http://www.cnr.it/sitocnr/Englishversion/CNR/Activities/IntActivity/Diplomazia.html): CNR-ISPA's scientific responsible, tutor of a research fellow assigned at CNR-ISPA and teaching board member.
- **FP7 EU** large collaborative project, n°222654, **DREAM** (May 2009-October 2013) Design and development of realistic food models with well-characterised micro- and macro-structure and composition http://dream.aaeuropae.org: contributing in the drafting of the proposal, acting as work package leader representative in several occasions (meetings and telephone conferences to define the content of the proposal; Kick of meeting; First Executive committee meeting, First Assembly meeting, WP6 Workshop in the parallel section) and in charge (principal investigator) for: assessing the model food applicability in terms of microbial food safety and quality by monitoring the behaviour of *L. monocytogenes*, (attenuated) *E. coli* O157:H7 and *S. aureus* in realistic model foods and assessing the survival of a probiotic *Lb. paracasei* strain also in presence of *L. monocytogenes* in realistic models of dairy dessert.
- Organizational data maintainer for ISPA within the EU Network of Excellence (FP6) FOOD-CT-2006-036337 MoniQA – Towards the harmonisation of analytical methods for monitoring food quality and safety

in the food supply chain –, and member of the MoniQA's microbiological contaminants working group and of the MoniQA Association (2012-ongoing) (www.moniqa.org). ISPA's principal investigator in the research activities of the MoniQA WP4 small project: "Establishing justification for a new paradigm in standardising rapid methods - PCR re-validation for detecting microorganisms, using *Campylobacter* as model", whose results, have been recently published (On et al., 2013, see the publication section).

- **FP6 EU** project N. COOP-CT2005-031918 (November 2006-September 2009) "**Ferbev**"-"Improving the processing of four fermented beverages from Eastern European Countries". Principal investigator for research activities relevant to (i) the microbiological characterization of traditional Matsoni (Georgian fermented milk) aimed at (ii) the selection and use of autochthonous multiple strain cultures to improve and or standardize its overall quality and extend its shelf-life, (iii) the monitoring of the selected autochthonous multiple strain cultures used for the lab-scale and pilot-scale production of these beverages, (iv) the assessment of the survival of technological, spoilage and pathogenic bacteria during the shelf-life of Matsoni treated at the UV light. Attendance at the kick off and final meetings.
- PON 01_01409 SAFEMEAT (November 2011- May 2015) (National project, funded by the Italian Ministry of Education, University and Research (MIUR) Process and product innovations to improve the safety and diversify the range of swine meat—based products (fresh and cured)": participated in the drafting of the proposal. Task leader/principal investigator for the tasks aimed at developing/optimizing real time PCR-based assays to detect pathogenic bacteria in raw and cured pork meat products/productions. Co-task leader with Prof. R. Rinaldi (CNR-NANO, Lecce, Italy) for the development and validation of lab-on-a-chip devices to detect pathogenic bacteria in fresh and cured pork meat chains. Attendance at the kick off meeting and workshops to present results.
- **PON** 02_00186_3417512 **SIMiSA** (2011-2014) (National project, funded by MIUR)–Innovative tools to improve microbial food safety-: participating in the research activities aimed at the development of novel methods to extract and detect (by real time PCR, immunosensors and lateral flow assays) DNA of pathogenic bacteria from meat.
- "LAIFF (National Project) Laboratory Network for the Innovation on Functional Foods" (2010-2013): participating in the drafting and ISPA's research activities.
- National Project PON L.297 DM 593/2000 Panti (2005-2009) "Improving the organoleptic, nutritional
 and health properties of Italian typical breads" -: in charge for the development and application of molecular
 methods to monitor autochthonous lactic acid bacteria strains used as sourdough starters.

EDITORIAL ACTIVITIES

- Editorial board member of Applied and Environmental Microbiology (ASM) (2016-2021)
- Associate Editor for Frontiers in Microbiology (2019-ongoing).
- Guest Associate Editor of Frontiers in Microbiology and Frontiers in Nutrition (2013-2019)

- Editorial board member of the International Journal of Agricultural Science and Food Technology (2014ongoing)
- Editorial board member of The Scientific World Journal (2013-2017)

Reviewer for several international scientific peer reviewed journals, such as Trends in Food Science and Technology (2019-ongoing), Comprehensive reviews in Food Science and Food Safety (2019-ongoing), Critical Reviews in Food Science and Nutrition (2020-ongoing), Scientific Reports (2018-ongoing) Frontiers in Microbiology (2013-ongoing), Applied and Environmental Microbiology (2012-ongoing), Food Microbiology (2016-ongoing) Toxins (2015-ongoing), Food Control (2013-ongoing), Foodborne Pathogens and Disease (2014-ongoing), etc.

COMMITTEE AND ASSOCIATION MEMBERSHIPS

- Member of the Scientific Committee and of the Organizing Committee for the First International Congress on multidisciplinary health research. 14-15 April 2016, Jaén, Spain.
- Member of the Scientific Committee for the 3rd International Congress on Food Technology, held in Cappadocia in Turkey on 10-12 October 2018.
- Member of the European Federation of Food Science and Technology (EFFoST)
- Member of the European Association for Food Safety (SAFE consortium)
- Member of the MoniQA Association (www.moniqa.org)
- Member of the Federation of European Microbiological Societies (FEMS)
- Member of the Italian Society for Agricultural, Food and Environmental Microbiology (SIMTREA)
- Member of several scientific committees for public competitions to grant research fellowships at CNR-ISPA.
- Member of the teaching board within the project DIPLOMA (May-November 2014), a Convention signed between the National Research Council and the DGCS of the Italian Ministry of Foreign Affairs (http://www.cnr.it/sitocnr/Englishversion/CNR/Activities/IntActivity/Diplomazia.html).

KEY QUALIFICATIONS

FIELDS OF SPECIALIZATION

Food science and technology; food microbiology and molecular biology relevant to microbial food safety and quality.

MAIN RESEARCH TOPICS/PUBLICATIONS/BIBLIOMETRIC RESEARCH INDICATORS

- Genomic characterization and enterotoxigenic potential of Staphylococcus aureus isolated from raw milk.
- Probiotic adjunct to improve quality and safety of raw milk and cheeses.
- Genomic characterization of *Arcobacter butzleri* isolated from shellfish and vegetables.
- Genomic-based assessment of the pathogenic potential of Weissella spp.
- Occurrence in foods, antibiotic resistance and enterotoxigenic potential of *Staphylococcus aureus*.
- Occurrence in foods and pathogenic potential of *Listeria monocytogenes*.
- Development and application of culture- dependent and independent- nucleic acid-based methods to identify quantitatively detect and type food-associated pathogenic bacteria.
- Assessment of the survival of pathogenic bacteria (also distinguishing viable and injured/stressed (viable but unculturable cells) to biotic and abiotic stresses occurring along (fermented) food chain.
- DNA-based biosensing: fabrication and use of monolithic DNA purification/real-time PCR silicon chips on an automated microfluidic detection platform to purify and quantitatively detect pathogenic bacteria.
- Development and/or application of culture-dependent and –independent DNA-based methods for the microbial community fingerprinting of fermented foods and beverages.
- Development and/or application of advanced methods to identify, quantitatively detect and characterize microbial markers of (probiotic) (fermented) food and beverage quality and traceability.
- Isolation, molecular and technological characterization of indigenous lactic acid bacteria for their use as starter or adjunct in fermented milk, dairy, and bakery products.

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Such activity is documented in more than **70 publications** including:

Articles on ISI ranked Journals: **36** (Scopus H-index: 16 - number of citations: 841; Google Scholar H index 17 – number of citations: 1369).

Chapters in peer reviewed books: 6.

Position papers: 4.

International conference attendance as invited speaker: 3.

Proceedings of International congresses: 18.

National conference attendance as invited speaker: 2.

Articles in National journals: 1.

Proceedings of National congresses: 6.

Acknowledgment in publications: 2

List of Publications

Book chapters

- Fusco, V., Abriouel, H., Benomar, N., Kabisch, J., Chieffi, D., Cho, G.-S., Franz, C.M.A.P. 2018.
 Opportunistic foodborne pathogens. Chapter 10. In: Food safety and preservation: modern biological approaches to improving consumer health. 1st Edition. Editors: Alexandru Grumezescu Alina Maria Holban. Academic Press. ISBN: 9780128149560. pp 269-306. https://www.sciencedirect.com/science/article/pii/B978012814956000010X
- <u>Fusco, V.,</u> Blaiotta G., Becker K. 2018. **Staphylococcal food poisoning**. Chapter 12. In: Food safety and preservation: modern biological approaches to improving consumer health. 1st Edition. Editors: Alexandru Grumezescu and Alina Maria Holban. Academic Press. ISBN: 9780128149560. pp 353-390. https://www.sciencedirect.com/science/article/pii/B9780128149560000123
- <u>Fusco V.</u>, Oguntoyinbo F. A., Franz C. M.A.P. 2017. **Fermentation to improve food security in Africa and Asia**. Chapter 12 in: Soft Chemistry and Food Fermentation, Volume 3: Handbook of Food Bioengineering. Pages 337–378. Editors: Alexandru Grumezescu Alina Maria Holban. Imprint: Academic Press (Elsevier). Paperback ISBN: 9780128114124. https://doi.org/10.1016/B978-0-12-811412-4.00012-6
- Cady C. N., <u>Fusco V.</u>, Maruccio G., Primiceri E., Batt A.C. 2016. <u>Micro and nanotechnology based approaches to detect pathogenic agents in food.</u> In: Volume 8 "NANOBIOSENSORS Nanotechnology in the Agri-Food Industry. Pages 475–510. Ed. Alex Grumezescu. Academic Press. eBook ISBN: 9780128043721. Hardcover ISBN: 9780128043011.
- <u>Fusco V.</u>*, Quero G.M. 2012. Nucleic acid-based methods to identify, detect and type pathogenic bacteria occurring in milk and dairy products. In: Structure and function of food engineering. InTech. Ed. Ayman Amer Eissa. ISBN 978-953-51-0695-1.
- <u>Fusco, V*.</u>, 2008. **DNA-based biosensors for spoilage bacteria detection**. In: Materialy Pomocnicze w technologii browarniczej Auxialiry materials in brewing technology. ISBN: 978-83-60958-11-7.

Papers on ISI ranked Journals

- Chieffi, D., Fanelli, F., Cho, G.-S., Schubert, J., Blaiotta, G., Franz, M. A. P C., Bania, J., <u>Fusco</u>, <u>V.,*.</u> (2020). Novel insights into the enterotoxigenic potential and genomic background of *Staphylococcus aureus* isolated from raw milk. Food Microbiology, 90, 103482. Doi: 10.1016/J.FM.2020.103482
- Fusco, V.*, Chieffi, D., Fanelli, F., Logrieco, A. F., Cho, G.-S., Kabisch, J., Boehnlein, C., Franz, C. M. A. P. (2020). Microbial quality and safety of milk and milk products in the 21st century. Comprehensive Reviews in Food Science and Food Safety, 19, 2013-2049. Doi: 10.1111/1541-4337.12568
- Chieffi D., Fanelli F., <u>Fusco V.*</u> (2020). *Arcobacter butzleri*: up-to-date taxonomy, ecology, and pathogenicity of an emerging pathogen. Comprehensive Reviews in Food Science and Food Safety, 19, 2071–2109. Doi: 10.1111/1541-4337.12577.

- Fanelli F, Chieffi D, Di Pinto A, Mottola A, Baruzzi F, **Fusco V***. (2020). Phenotype and genomic background of *Arcobacter butzleri* strains and taxogenomic assessment of the species. Food Microbiology, 89: 103416. https://doi.org/10.1016/j.fm.2020.103416.
- Tofalo R., <u>Fusco V.</u>, Böhnlein C., Kabisch J., Logrieco A.F., Habermann D., Cho G.-S., Benomar N., Abriouel H., Schmidt-Heydt M., Neve H., Bockelmann W., Franz C.M.A.P. (2019). The life and times of yeasts in traditional food fermentations, Critical Reviews in Food Science and Nutrition, DOI: 10.1080/10408398.2019.1677553
- **Fusco V.,** Quero M.G., Poltronieri P., Morea M., Baruzzi F. (2019). Autochthonous and Probiotic Lactic Acid Bacteria Employed for Production of "Advanced Traditional Cheeses". Foods, 8, 412; doi:10.3390/foods8090412.
- Fanelli F, Di Pinto A, Mottola A, Mule G, Chieffi D, Baruzzi F, Tantillo G, <u>Fusco V</u>*. (2019). Genomic characterization of *Arcobacter butzleri* isolated from shellfish: novel insight into antibiotic resistance and virulence determinants. Front Microbiol. 10: 670. doi: 10.3389/fmicb.2019.00670.
- Franz, C. M. A. P., den Besten, H. M. W., Böhnlein, C., Gareis, M., Zwietering, M. H., & <u>Fusco, V.</u> (2019). Reprint of: Microbial food safety in the 21st century: Emerging challenges and foodborne pathogenic bacteria. *Trends in Food Science and Technology*, 84, 34-37. https://doi.org/10.1016/j.tifs.2019.01.009.
- Flynn, K., Villarreal, B.P., Barranco, A., Belc, N., Bjornsdottir, B., <u>Fusco, V.</u>, Rainieri, S., Smaradottir, S.E., Smeu, I., Teixeira, P., Jörundsdóttir, H.Ó. (2018). An Introduction to Current Food Safety Needs, Trends in Food Science & Technology, doi: https://doi.org/10.1016/j.tifs.2018.09.012.
- Franz, C.M.A.P., den Besten, H.M.W., Böhnlein, C., Gareis, M., Zwietering, M.H., <u>Fusco, V.</u> (2018). Microbial food safety in the 21st century: emerging challenges and foodborne pathogenic bacteria, Trends in Food Science & Technology 81, 155-158 doi: https://doi.org/10.1016/j.tifs.2018.09.019.
- Faggiano G, Chieffi D, Logrieco AF, <u>Fusco V*.</u> 2018. Effect of refrigeration and probiotic adjunct on pathogenic and spoilage microorganisms in raw milk for direct human consumption Journal of Food Processing and Preservation. 42, e13499. DOI: 10.1111/jfpp.13499.
- Oguntoyinbo FA, <u>Fusco V</u>, Cho G-S, Kabisch J, Neve H, Bockelmann W, Huch M, Frommherz L, Trierweiler B, Becker B, Benomar N, Gálvez A, Abriouel H, Holzapfel WH, Franz C M. A. P. 2016. Produce from Africa's gardens: potential for leafy vegetable and fruit fermentations. Frontiers in Microbiology 7:981. doi: 10.3389/fmicb.2016.00981.
- **Fusco V*,** Quero MG, Chieffi D, Franz, MAPC. 2016. Identification of *Lactobacillus brevis* using a species-specific AFLP-derived marker. International Journal of Food Microbiology 232: 90-94.
- Primiceri E, Chiriaco MS, de Feo F, Santovito E, <u>Fusco V</u>, Maruccio G. 2016. A multipurpose biochip for food pathogen detection. Analytical Methods 2016: 10.1039/C5AY03295D.

- **Fusco V*.**, den Besten HMW, Logrieco AF, Rodriguez FP, Skandamis PN, Stessl B, and Teixeira P. 2015. Food safety aspects on ethnic foods: toxicological and microbial risks. Current Opinion in Food Science. 6: 24-32.
- Abriouel H, Lerma LL, del Carmen Casado Munoz, Montoro BP, Kabish J, Pichner R, Cho G-S, Neve H, Fusco V, Franz CMAP, Galvez A, Benomar N. 2015. The controversial nature of the *Weissella* genus: technological and functional aspects versus whole genome analysis-based pathogenic potential for their application in food and health. Frontiers in microbiology (IF. 4) 6:1197. doi: 10.3389/fmicb.2015.01197
- **Fusco, V.*,** Quero, G.M., Cho, G., Kabisch, J., Meske, D., Neve, H., Bockelmann, W. Franz, C.M., 2015. The genus *Weissella*: taxonomy, ecology and biotechnological potential. *Frontiers in Microbiology* 6:155. doi:10.3389/fmicb.2015.00155.
- Di Lena, M., Quero, G.M., Santovito, E., Verran, J., De Angelis, M., <u>Fusco, V.*,</u> 2015. A selective medium for isolation and accurate enumeration of *Lactobacillus casei*-group lactobacilli in probiotic milks and dairy products. *International Dairy Journal*, 47: 27-36. doi: 10.1016/j.idairyj.2015.01.018.
- **Fusco V.***, Quero G.M. 2014. Culture-dependent and -independent nucleic acid-based methods used in the microbial safety assessment of milk and dairy products. Comprehensive Reviews in Food Science and Food Safety 13 (4): 493–537.
- Quero G.M., Santovito E., Visconti A., <u>Fusco V.*</u>, 2014. Quantitative detection of *Listeria monocytogenes* in raw milk and soft cheeses: culture-independent versus liquid and solid based culture-dependent real time PCR approaches. LWT- Food Science and Technology. 58: 11-20.
- Quero M.G., <u>Fusco V.*</u>, Cocconcelli P.S., Owczarek L., Borcakli M., Fontana C., Skapska S., Jasinska U.T., Ozturk T., Morea M., 2014. Microbiological, physico-chemical, nutritional and sensory characterization of traditional Matsoni: Selection and use of autochthonous multiple strain cultures to extend its shelf-life. Food Microbiol. 38: 179–191.
- On, S.L.W., Brandt, S.M., Cornelius, A.J., <u>Fusco V.</u>, Quero, G.M., Maćkiw, E., Houf, K., Bilbao, A., Díaz, A.I., Benejat, L., Megraud, F., Collins-Emerson, J., French, N.P., Gotcheva, V., Angelov, A., Alakomi, H.-L., Saarela, M., Paulin, S.M.*. 2013. PCR revisited: a case for revalidation of PCR assays for microorganisms using identification of Campylobacter species as an exemplar. Quality Assurance and Safety of crops & foods 5: 49-62.
- Borcakli M., Lucas J., Caputo L., Ozturk T., Baruzi F., <u>Fusco V</u>., Quero G.M., Quintieri L., M. Houghton. 2013. Effect of UV-C light in the preservation of raw fermented beverages. Ital. J. Food Sci. 25: 213-221.
- **Fusco V.***, Riccardi, M., Quero G.M. (2012). Thin agar layer- versus most probable number-PCR to enumerate viable and stressed *Escherichia coli* O157:H7 and application in a traditional raw milk pasta filata cheese. International Journal of Food Microbiology 159: 1–8.
- <u>Fusco V.</u>*, Quero G.M., Stea G., Morea M., Visconti A. (2011). Novel PCR-based identification of *Weissella confusa* using an AFLP-derived marker. *International Journal of Food Microbiology*. 145, 437-443.

- **Fusco V.***, Quero G.M., Morea M., Blaiotta G., Visconti A. (2011). Rapid and reliable identification of *Staphylococcus aureus* harbouring the enterotoxin gene cluster (*egc*) and quantitative detection in raw milk by real time PCR. *International Journal of Food Microbiology*. 144, 528-537.
- Blaiotta, G.*, <u>Fusco, V.</u>, Ercolini, D., Pepe, O., Coppola, S. 2010. Diversity of *Staphylococcus* strains based on partial *kat* (catalase) gene sequences and designs of a PCR-RFLP assay for identification and differentiation of coagulase positive species (*S. aureus*, *S. delphini*, *S. hyicus*, *S. intermedius*, *S. pseudintermedius*, and *S. schleiferi* subsp. *coagulans*). *Clin. Microbiol*. 48: 192-201.
- Aponte, M.*, <u>Fusco, V.</u>, Andolfi, R., Coppola, S., 2008. Lactic acid bacteria occurring during manufacture and ripening of Provolone del Monaco cheese: Detection by different analytical approaches. *International Dairy Journal*. 18: 403–413.
- Blaiotta, G.*, <u>Fusco, V.</u>, Ercolini, D., Aponte, M., Pepe, O., Villani, F., 2008. Diversity of *Lactobacillus* strains based on partial HSP60 gene sequences and design of PCR-RFLP assays for species identification and differentiation. *Appl. Environ. Microbiol.* 74: 208–215.
- Blaiotta, G.*, <u>Fusco</u>, <u>V.</u>, von Eiff, C., Villani F., Becker, K., 2006. Biotyping of enterotoxigenic Staphylococcus aureus by enterotoxin gene cluster (egc) polymorphism and spa-typing analyses. Applied and Environmental Microbiology 29: 375-381.
- Lechiancole, T., Blaiotta, G., Messina, D., <u>Fusco, V.</u>, Villani F., Salzano, G.*, 2006. Evaluation of intraspecific diversities in *Oenococcus oeni* through analysis of genomic and expressed DNA. *Systematic Applied Microbiology* 29: 375-381.
- Coppola, S., <u>Fusco, V.</u>, Andolfi, R., Aponte, M., Blaiotta, G., Ercolini, D., Moschetti, G.*, 2006. Evaluating microbial diversity during the manufacture of "fior di latte di agerola", a traditional raw milk cheese of Naples area. *Journal of Dairy Research* 73 (3): 264-272.
- Ercolini, D.*, <u>Fusco, V.</u>, Blaiotta, G., Sarghini F., Coppola, S., 2005. Response of *Escherichia coli* O157:H7, *Salmonella thyphimurium*, *Listeria monocytogenes* and *Staphylococcus aureus* to the stresses occurring in model manufactures of Grana Padano cheese. *Journal of Dairy Science* 88: 3818-3825.
- Ercolini, D., <u>Fusco, V.</u>, Blaiotta, G., Coppola, S.*, 2005. Sequence heterogeneity in the *lacSZ* operon of *Streptococcus thermophilus* and its use in PCR systems for strain differentiation. *Research in Microbiology*, 156: 161-172.
- Blaiotta, G., Ercolini, D., Pennacchia, C., <u>Fusco, V.</u>, Casaburi, A., Pepe, O., Villani, F.*, 2004. PCR detection of staphylococcal enterotoxin genes in *Staphylococcus* spp. strains isolated from meat and dairy products. Evidence for new variants of *se*G and *se*I in *S. aureus* AB-8802. *Journal of Applied Microbiology* 97: 719-730.
- Ercolini, D., Blaiotta, G., <u>Fusco, V.</u>, Coppola, S.*, 2004. PCR-based detection of enterotoxigenic *Staphylococcus aureus* in the early stages of raw milk cheese making. *Journal of Applied Microbiology* 96: 1090-1096.

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Papers on non ISI ranked Journal

Coppola, S., <u>Fusco, V.</u>, Aponte, M., e Andolfi, R., 2006. La diversità microbica in alcuni formaggi tipici della Campania. *Scienza e tecnica lattiero-casearia*. 57: 357-370.

Position papers

Amarowicz **R**, <u>Fusco V</u> et al. 2016. Safe food for the future. SAFE Consortium. available at https://issuu.com/safeconsortium/docs/2016_04_pospaper?e=8475536/35254606

Gunnarsson O.M., Flynn K., Amarowicz R., Arlorio M., Avantaggiato G., Battelli G., Castellari M., Danielsdottir A.K., Fusco V. et al., 2015. Food safety: the top priority on the Horizon for the Safe Consortium. Available at: http://issuu.com/safeconsortium/docs/2015_05_pospaper

"The need for research on raw milk cheese safety and quality", (http://www.safeconsortium.org/index.php?option=com_content&view=category&id=111&Itemid=83), published in 2009 and last updated in 2011

Fusco et al., Roadmap 2011 SERIT (SEcurity Research in Italy), available on www.piattaformaserit.it).

Invited Lectures at International conferences

Fusco, V., 2008. DNA-based biosensors for spoilage bacteria detection. 13th School of Fermentation Technology: *Auxiliary materials in brewing technology* (lecture). 8/4-11/4 2008, Krakow, Poland.

Fusco, V., Cady, N.C., Stelick, S., Batt, C.A., 2006. Real Time PCR detection of *Staphylococcus aureus* using a microfluidics biosensor module. *Food Micro* 2006 *food safety and food biotechnology: diversity and global impact*. (*lecture*) 29/8–2/9 2006, Bologna.

Cady, N.C., Stelick, S., <u>Fusco, V.</u>, Shiao-jia Lui, C., Batt, C.A., 2005. Development of PCR device for pathogen detection. FDA-CFSAN Meeting on Extramural Progress Development. May 10-11th.

International conferences (poster/abstracts)

Fusco V., Chieffi D., Fanelli F., Cho G.-S., Schubert J., Blaiotta G., Franz C. M.A.P., Bania J. (2019). Novel insights into the enterotoxigenic potential of *Staphylococcus aureus* isolated from raw milk. International Scientific Conference on Raw Milk and XI Annual Meeting of FACEnetwork. October 23-25, Valencia, Spain. Poster.

Fusco V., Chieffi D., Faggiano G., Logrieco A.F. (2019). Raw milk for the direct human consumption inoculated with the probiotic *Lactobacillus rhamnosus* GG. International Scientific Conference on Raw Milk and XI Annual Meeting of FACEnetwork. October 23-25, Valencia, Spain. Poster.

Abriouel H, Lerma LL, del Carmen Casado Munoz, Montoro BP, Kabish J, Pichner R, Cho G-S, Neve H, **Fusco V**, Franz CMAP, Galvez A, Benomar N. 2015. Pathogenic potential of Weissella spp. as assessed by genomic analysis. NETTAB 2015 & Integrative Bioinformatics 2015 Joint Symposium. October 12-16, 2015, Palace Hotel, Bari, Italy. Abstract Book. Ed. Consiglio A, D'Elia D, Romano P. pages: 145-146.

- Battelli G, Brasca M, Morandi S, Baruzzi F, Caputo L, <u>Fusco V</u>, de Candia S, Quintieri L. 2015. The Traditional-Cheeses Group. TRADEIT-Brokerage Event: Food Safety, 30 Settembre-3 Ottobre 2015 Tralee –Irlanda.
- Santovito E., de Feo F., Primiceri E., Chiriacò M.S., Arima V., Maruccio G., Rinaldi R., <u>Fusco V.*.</u> A multipurpose EIS biochip for pathogenic bacteria detection. Conference: NanotechItaly 2014. Cross-Cutting KETs for Responsible Innovation. Venice, 26-28 November 2014. Conference Handbook.
- Postollec F, Di Biase M, Desriac N, Huchet V, <u>Fusco V</u>, Sisto A, Valerio F, Lavermicocca P, Sohier D. 2013. Food model aided design tool to optimize food model formulations, processes and storages according to microbial behavior. Poster at the DREAM International Conference 24th 26th June 2013 Nantes, France.
- Battelli, G., Brasca, M., Morandi, S., Baruzzi, F., Caputo, L., <u>Fusco, V.</u> 2012. National Research Council Institute of Sciences of Food Production. The traditional-cheeses group. Cheese Art Edition. 27-29 January 2012, Ragusa, Italy.
- **Fusco, V.,** Cady, N.C., Stelick, S., Batt, C.A., 2009. Quantitative detection of *Staphylococcus aureus* by TaqMan real time PCR, using a DNA-based microfluidic biosensor. "The SAFE Consortium *Second International Congress: Novel Technologies and Food Quality, Safety and Health"*. 27-29 April 2009, Girona, Spain. The SAFE Consortium International Congress on Food Safety Abstract Book. Pag. 147.
- Borcakli M., Lucas J., Morea M., Ozturk T., Baruzzi F., <u>Fusco V.</u>, Quero G.M., Giuliani I.G. 2009. UV treatments for preservation and shelf-life extension of three traditional fermented beverages from Eastern European Countries. 3rd International Congress on Food and Nutrition, 22-25 April 2009, Antalya, Turkey.
- Morea, M., <u>Fusco, V.</u>, Baruzzi, F., Quero, G.M., Cocconcelli, PS., Borcakli, M., Cappa, F., Ozturk, T. Characterization of the microbiota of three traditional fermented beverages from Eastern European Countries. 2008. *Food Micro* 2008 Aberdeen Scotland. Programme and Abstract Book. *The* 21st *International ICFMH Symposium.* "Evolving microbial food quality and safety". 1-4 September 2008. pag. 194.
- Caputo, L., Monopoli, C., Quintieri, L., <u>Fusco, V.</u>, Morea, M, 2008. Molecular and physiological characterization of *Pichia fermentans* strains naturally occurring in *Boza. Food Micro* 2008 Aberdeen Scotland. Programme and Abstract Book. *The 21st International ICFMH Symposium. "Evolving microbial food quality and safety"*. 1-4 September 2008. pag. 194.
- **Fusco, V.,** Quero, G.M., Morea, M., Visconti, A., 2008. Detection and quantification of *Staphylococcus aureus* enterotoxin I by TaqMan real-time PCR. *Food Micro* 2008 Aberdeen Scotland. Programme and Abstract Book. *The 21st International ICFMH Symposium. "Evolving microbial food quality and safety".* 1-4 September 2008. pag. 258.
- **Fusco, V.,** Quero, GM., Stea, G., Morea, M., Visconti, A., 2008. Development of a novel species-specific PCR assay for detecting *Weissella confusa*. *Food Micro* 2008 Aberdeen Scotland. Programme and Abstract Book. *The* 21st *International ICFMH Symposium*. "Evolving microbial food quality and safety". 1-4 September 2008. pag .259.

- Fusco, V., Baruzzi, F., Todesco, P., Morea, M., Visconti, A., 2008. Monitoring of a starter strain of Staphylococcus xylosus during the manufacturing and ripening of dry fermented sausages. Food Micro 2008 Aberdeen Scotland. Programme and Abstract Book. The 21st International ICFMH Symposium. "Evolving microbial food quality and safety". 1-4 September 2008. pag. 259.
- Cady, N.C., <u>Fusco, V.</u>, Shiao-jia Lui, C., Batt, C.A., 2006. Development of PCR device for pathogen detection. Within "The 232nd ACS National Meeting", San Francisco, CA, September 10-14, 2006. Abstracts of papers American Chemical Society. vol. 232.
- Blaiotta, G., <u>Fusco, V.</u>, Villani, F., Becker, K., 2004. Enterotoxin gene cluster (*egc*) polymorphism in *Staphylococcus aureus* isolates. 56 Jahrestagung der DGHM: in Zusammenarbeit mit der Deutschen Veterinärmedizinischen Gesellschaft (DVG), Fachgruppe Bakteriologie und Mykologie. Münster, Germany, September 26-29. *International Journal of Medical Microbiology* 294 (Supplement n°1), pag. 214-215.
- Ercolini, D., <u>Fusco, V.</u>, Blaiotta, G., Coppola, S., 2004. Molecular detection of *Escherichia coli* O157:H7, *Listeria monocytogenes* and *Salmonella thyphimurium* during the production of Grana cheese. In « Food safety under extreme conditions", Conference on small-scale production units of traditional fermented foods (Jaén, 6-8/09/2004): abstract book, T4P-1, pag. 117.
- Ercolini, D., <u>Fusco, V.</u>, Blaiotta, G., Coppola, S., 2003. Polymorphism of *lacZ* and *lacS* genes of *Streptococcus* thermophilus from dairy environment as revealed by sequence analysis. FEMS Congress of Europen Microbiologists, Ljubljana (Slovenia), June 23th-July 3rd. *FEMS Microbiology Letters* 222:111.

Invited Lectures at National Conferences

Fusco, V., 2007. "Le popolazioni microbiche dominanti nei formaggi tipici del comprensorio dei monti lattari in relazione alle tecnologie di produzione". Convegno: Biodiversità animale e tipicità territoriali, Agerola, 3 Agosto 2007 (presentazione orale).

Fusco, V., 2005. Real time PCR detection of *Staphylococcus aureus* using an integrated microfluidics platform. Proceedings of the 10th Workshop on the developments in the Italian PhD Research in Food Science and Technology. Food Science Department, Foggia, September 7-9th, Faculty of Agricultural Science, Via Napoli 25, Foggia (presentazione orale), pag. 167-175.

Participation in National conferences (poster/abstract)

- Blaiotta, G., <u>Fusco, V.,</u> Ercolini, D., Pepe, Coppola, S., 2007. Identificazione e differenziazione delle specie del genere *Staphylococcus* mediante analisi del gene che codifica per la catalasi (*kat*A). 35°Congresso Nazionale della Società Italiana di Microbiologia, 30 Settembre-3 Ottobre, Catania. pag. 104.
- Ercolini, D., <u>Fusco, V.</u>, Blaiotta, G., Sarghini, F., Coppola, S., 2005. Comportamento di *E.coli* O157:H7, *L. monocytogenes*, *S. typhimurium* e *S. aureus* in risposta agli stress termici imposti dalla tecnologia di produzione del Grana Padano. Workshop "Qualità, salubrità e sicurezza di alcuni prodotti lattiero-caseari":

Sicurezza Igienica di Formaggi Tipici Italiani (SIFORTI); Genuinità Formaggi a Pasta Filata (GEFORPASTA). Roma, 30 Maggio 2005. Sito web di seguito riportato:

http://www.stampa.cnr.it/documenti/comunicati/italiano/2005/Maggio/79_mag.htm.

- Placida, M., Andolfi, R., <u>Fusco, V.</u>, Ercolini, D., Aponte, M., 2005. Provolone del Monaco: evoluzione della microflora lattica a morfologia coccica nel processo tecnologico di produzione. Giornate scientifiche Interpolo Polo delle Scienze e Tecnologie per la Vita Polo delle Scienze e delle Tecnologie Facoltà di Medicina e Chirurgia Farmacia Medicina Veterinaria Agraria Scienze Matematiche Fisiche e Naturali Ingegneria. 26-27 Maggio. Complesso Monte S. Angelo-Via Cinthia, Napoli, pag. 348.
- Lechiancole, T., <u>Fusco, V.</u>, Blaiotta, G., Messina, D., Salzano, G., 2005. Differenziazione di ceppi all'interno di una specie microbica mediante analisi del polimorfismo del DNA espresso. Atti del Convegno "Prodotti Freschi Sicuri: nuove tecnologie per la conservazione di alimenti altamente deperibili". Ariano Irpino (Avellino) 16-19 Marzo, pag. 245-248.
- **Fusco, V.,** 2004. Genetic and cytochemical differentiation of strains of *Staphylococcus xylosus*. Proceedings of the 9th Workshop on the developments in the Italian PhD Research in Food Science and Technology. Parco Area delle Scienze, Parma, September 8-10, pag. 406.
- **Fusco, V.,** Andolfi, R., Coppola, S., 2002. Selezione e prove di impiego di batteri lattici quali colture di rinforzo per la preparazione del Fior di Latte di Agerola. Giornate scientifiche del polo delle scienze e delle tecnologie per la vita Facoltà di medicina e chirurgia, farmacia, medicina, veterinaria e agraria. 6-7 Giugno 2002. pag. 360.

AKNOWLEDGMENTS IN PUBLICATIONS

Regi M., 2007. Chapter 6: Synthesis, characterization and application of carbon nanotubes: the case of aerospace engineering. Pages 113-193. In Nanofibers and nanotechnology in texiles. Ed. P. J. Brown and K. Stevens. Woodhead Publishing, Abginton Cambridge CB21 6AH, England and CRC press LLC, 6000 Broken Sound Parkway, NW, Suuite 300, Boca Raton, FL 33487, USA. (Acknowledgment at page 185).

Moschetti G, Blaiotta G, Villani F, Coppola S. (2001). Nisin-producing organisms during traditional 'Fior di latte' cheese-making monitored by multiplex-PCR and PFGE analyses. Int J Food Microbiol. 63(1-2): 109-116.