Curriculum Vitae et Studiorum

Ileana Vigentini, PhD
Assistant Professor in Wine Microbiology and Wine Biotechnology
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1. PERSONAL DATA

First name(s)/Surname(s): Ileana Vigentini
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2. EDUCATION

2012 **PhD in Food Science Technology and Biotechnology**. University of Milan/Italy. Thesis title: "Molecular characterisation, stress responses and specific enzymatic activities of *Dekkera/Brettanomyces bruxellensis* wine strains" (Supervisor: Prof. R.C. Foschino) (Level in national or International classification: ISCED6)

2005 **Specialization School in Biotechnological Applications**. University of Milan/Italy. Thesis title: "Heterologous proteins production in different expression systems: a comparative analysis" (Supervisor: Prof. E. Galli). 50/50 *cum laude* (Level in national or International classification: ISCED5)

2002 **Graduation in Biological Sciences**. University of Milan/Italy. Thesis title: "Carbon metabolism in *Zygosaccharomyces bailii*" (Supervisor: Prof. B.M. Ranzi). 110/110 (Level in national or International classification: ISCED5)

3. CARRER PROFILE

3.1 CURRENT POSITION

2016- **Assistant Professor**. Faculty of Agriculture/Department of Food, Environmental and Nutritional Sciences/University of Milan/Italy

3.2 PREVIOUS POSITIONS

2012-2015 **Research Associate**. Faculty of Agriculture/Department of Food, Environmental and Nutritional Sciences/University of Milan/Italy

2011-2012 **Postdoc**. Faculty of Agriculture/Department of Food, Environmental and Nutritional Sciences/University of Milan/Italy

2005-2011 **Research Assistant**. Research activity in Wine Microbiology, Biotechnology and Molecular Biology

3.3 INTERNATIONAL RESEARCH EXPERIENCES

2017- **Stage of 4 months** at the Donnelly Centre, The Governing Council of the University of Toronto, Toronto, Canada. Project title: "Improving CRISP/Cas technology in laboratory and wine yeasts" (Contact Person: Prof. F.P. Roth. Invited as Visiting Professor. May, 22nd – Sep, 15th)

2015 **Stage of 3 months** at the Donnelly Centre, The Governing Council of the University of Toronto, Toronto, Canada. Project title: "Development of a novel gene deletion technology in wine yeasts" (Contact Person: Prof. F.P. Roth. Invited as Visiting Researcher. May, 1st – July, 29th)

2011 **Stage of 6 months** at Department of Viticulture & Enology, University of California, Davis, USA. Project title: "Assessment of the *Brettanomyces bruxellensis* metabolome during sulphur dioxide exposure" (Supervisor: Prof. L.F. Bisson)

2004 **Stage of 3 months** at Cell and Organism Biology Department, Lund University, Sweden. Project title: "Novel non-conventional yeasts for food production" (Supervisor: Prof. J. Piskur)

3.4 FELLOWSHIPS AND SCHOLARSHIPS

2011-2012 **Fellowship**. Department of Food Sciences and Technology/University of Milan/Italy. Project title: "Selection of microbial starters for sourdoughs"

2009-2011 **Fellowship**. Department of Food Sciences and Technology/University of Milan/Italy. Project title: "Autochthonous yeasts selection and their exploitation for Franciacorta and Oltrepò Pavese sparkling wine production"

2005-2009 **Fellowship**. Department of Food Sciences and technology/University of Milan/Italy. Project title: "Microbial selection for wine production"

2002-2005 **Scholarship**. Funded by University of Milan/Italy to attend the Postgraduated school in Biotechnological Applications (3 years)

2004 **Scholarship**. Funded by University of Milan/Italy to attend the course in "Functional genomics and metabolic engineering" (1 week) at Center for Process Biotechnology, Technical University of Denmark, Denmark

2003 **Scholarship**. Grant to participate to the international conference "Phisiology of yeast and filamentous fungi" 24-28 March at Anglet (France). Funded by FEMS Society

4. TEACHING ACTIVITIES AND TUTORING

4.1 LABORATORY CLASSES

2012- **Wine Microbiology** (28 hours/academic semenster-G25-13-B; Role: Instuctor). University of Milan/Italy. Laboratory class for Bachelor students in Viticulture and Oenology. Language: Italian

Wine Biotechnology (16 hours/academic semenster-G63-44; Role: Instuctor). University of Milan/Italy. Laboratory class for graduate students in Viticulture and Oenological Sciences. Language: Italian (2012, 2013)/English (2014, 2015)

2006-2011 **Food quality: Microbiological analyses**. University of Milan/Italy (48 hours/academic semenster; Role: Teaching assistant)

Dairy Microbiology. University of Milan/Italy (16 hours/academic semenster; Role: Teaching assistant)

Wine Technologies: Molecular applications. University of Milan/Italy (16 hours/academic semenster; Role: Teaching assistant)

Food Microbiology. University of Milan/Italy (12 hours/academic semenster; Role: Teaching assistant)

2003-2005 **Industrial Microbiology and Chemistry of Fermentations**. University of Milan/Italy (16 hours/academic semenster; Role: Teaching assistant)

4.2 SEMINARS AND LESSONS

2008- **Seminar for employers of the sector**. "Ecologia Microbica delle Materie Prime per la produzione di birra artigianale", "Le Fermentazioni: Tipologia di Lieviti e Controlli Microbiologici", Milan, Italy, Language: Italian (4 hours). November 28th, 2014

Seminar for employers of the sector. "*Indagine sulla biodiversità dei lieviti enologici in Franciacorta ed Oltrepò Pavese", "Il DNA come "Elemento Tracciante" in Spumantizzazione*", "Caratterizzazione genetica e fenotipica di

ceppi indigeni di *Saccharomyces cerevisiae*", Riccagioia, Pavia, Italy June 6th, 2012

Seminar for public employers. "*Nuovi strumenti per la produzione vitivinicola lombarda*" Camera di Commerico: Industria Artigianato e Agricoltura. Progetto Unioncamere Lombardia, Brescia/Mantova. Language: Italian (1 hour/each)

Updating seminar for public sector employees. "*Il rischio microbiologico nella filiera enologica*", University of Milan/Italy. Type:. Language: Italian (2 hours)

Seminars for graduated students. "*La tassonomia dei microrganismi del vino*", "*Analisi genetica dei microrganismi di interesse enologico*", "*Isolamento ed estrazione del DNA*", "*Metodi molecolari di identificazione della specie*", "*Tipizzazione dei microrganismi-Fingerprinting genetico*", "*I lieviti geneticamente modificati in enologia*", "*Le alterazioni di origine microbica. Approfondimento su difetto da* Brettanomyces", "*Gli starter. Selezione per caratteri tecnologici e di qualità*", "*Gli starter. Selezione per origine: i ceppi autoctoni. Selezione per miglioramento genetico*", "*La trasformazione malolattica. Gli enococchi*", University of Milan/Italy. Language: Italian (16 hours/academic semenster 2008-2011)

Seminar for PhD Students. "*Aspetti fisiologici, genetici e tecnologici dei lieviti in enologia*" Università dell'Insubria (VA). (Host: Prof. F. Marinelli) Language: Italian (1 hour).

2006-2011 **Lessons for undergraduated students**. "*La PCR automatizzata per la determinazione di patogeni: il sistema BAX*", "*Indicatori di tipicità: il caso* Lactobacillus sanfranciscensis *in Panettone*", "*La Real-Time PCR*", "*Il sequenziamento del DNA. Il ribotyping*", University of Milan/Italy. Language: Italian (8 hours/academic semenster; Role: Teaching assistant)

Lessons for undergraduated students. "*Microbiologia delle bevande alcoliche e Tecniche rapide di analisi*" University of Milan/Italy. Language: Italian (4 hours/academic semenster; Role: Teaching assistant)

Lesson for undergraduated students. "*Microbiologia delle bevande*", University of Milan/Italy. Language: Italian (2 hours; Role: Teaching assistant)

2004-2005 **Lessons for undergraduated students**. "*Il bioreattore*", University of Milan/Italy. Language: Italian (2 hours/academic semenster; Role: Teaching assistant)

4.3 COURSES

2015 **Food production: microbiological aspects**. (12 hours-TFA CLASSE A012; Role: Instuctor). University of Milan/Italy. Course for public sector employees. Language: Italian

2014 **Food production: microbiological aspects**. (16 hours-PAS CLASSE A050; Role: Instuctor). University of Milan/Italy. Course for public sector employees. Language: Italian

2012- **Wine Microbiology**. (28 hours/academic semenster-G25-13-B; Role: Instuctor). University of Milan/Italy. Class for Bachelor students in Viticulture and Oenology. Language: Italian

Wine Biotechnology. (34 hours/academic semenster-G63-44; Role: Instuctor). University of Milan/Italy. Class for graduate students in Viticulture and Oenological Sciences. Language: Italian (2012, 2013)/English (2014, 2015)

4.4 SUPERVISION OF UNDERGRADUATED, GRADUATE STUDENTS, AND POSTDOCTORAL FELLOWS

2012- **Supervisor** of graduated students. Faculty of Agriculture/Department of Food, Environmental and Nutritional Sciences/University of Milan/Italy

Supervisor of PhD Students. Faculty of Agriculture/Department of Food, Environmental and Nutritional Sciences/University of Milan/Italy

2003- **Co-supervisor** of 28 undergraduated students.

Co-supervisor of 14 graduated students. In details two of them got the awards: "PRIX LALLEMAND ITALIA 2011" (Alexis Praz, A.Y. 2010-2011, Title: *Caratterizzazione fenotipica e genotipica di batteri malolattici autoctoni in vini della Valle D'Aosta.* Oenological and Viticulture Sciences); "Waiting for…Milano premia i giovani" (2011) (Vincenzo Fabrizio, A.Y. 2010-2011, Title: *Selezione e tracciabilità di* Saccharomyces cerevisiae *in prove di spumantizzazione*. Food Sciences and Human Nutrition)

5. RESEARCH EXPERIENCE AND TECHNICAL SKILLS

Dr. Ileana Vigentini has been working with yeasts and bacteria involved in industrial, food and oenology fields. She has built technical expertise on studies in yeast physiology, molecular biology and biotechnology, microbial biodiversity and community dynamics. She has developed competences in wine microbiology because of her research activity on microbial populations such as *Saccharomyces cerevisiae*, *Brettanomyces bruxellensis* and *Oenococcus oeni*. Furthermore, Dr. Vigentini has addressed her studies to other fermented foods such as bread and beer.

5.1 AREAS OF INTEREST

Yeast Physiology: Physiological characterization of non-conventional yeasts under controlled growth conditions (batch, continuous and fed-batch cultures). Research focuses on the study of growth parameters (growth rate, sugar usage and regulation, final products, enzymatic activities, etc.) in species mainly involved in food and wine spoilage.

Molecular Biology and Biotechnology: Construction of expessing vectors for heterologous proteins production in *S. cerevisiae*, non-conventional yeasts belonging to *Kluyveromyces lactis* and *Zygosaccharomyces bailii* species and in the bacterium *Pseudoalteromonas haloplanktis* (α-gluacoamylase, interleukin 1β and human nerve growth factor). Optimization of the growth parameters in fermentative strategies for the over-expression of recombinant proteins. Identification of the Vinyl Phenol Reductase (VPR) enzyme of *B. bruxellensis.* Molecular characterization of *B. bruxellensis* VPR enzyme and VPR gene cloning in *S. cerevisiae*. Expression of VPR gene under enological conditions. Expression of *B. bruxellensis* yeast genes involved in stress response (osmotic stress, acitic acid and cold tolerance, SO_2 resisitance).

Microbial Biodiversity and Community dynamics: Identification and molecular characterization of microorganisms involved in winemaking (grape, must and wine), beer spoilage and typical bread products (sourdoughs). Selection of wine yeast and lactic acid bacteria (LABs) for starter production. Evolution of wine yeast and LABs populations, belonging to *S. cerevisiae* and *O. oeni* species, in controlled and spontaneous fermentations.

Secondary yeast metabolism: Volatile phenols by *B. bruxellensis.* Production of bioactive compounds by non-*Saccharomyces* yeasts and LAB species (melatonin, biogenic amines).

5.2 TECHNICAL SKILLS

- Physiological studies in bioreactor (batch, fed-batch and continuous cultures);
- Micro-manipulation of yeasts (isolation of natural and induced mutants);
- Biotechnological protocols (gene cloning, gene deletion, mutagenesis, construction of expression vectors; Southern and Western analysis, DNA sequencing, CRISPR/Cas9 approach)
- Species identification and strain characterization (RFLP analysis; PFGE; MLST; Capillary electrophoresis and setup of novel PCR protocols)
- RT and Real-time PCR
- Metabolomics
- Trancriptomics (RNA-Seq approach)

6. PROJECT PARTICIPATION AND COORDINATION

6.1 PROJECT PARTICIPATION

The experience on the organization of research projects has been gained through active participation in institutional programs of research funding and it includes national/international partnerships with food and wine producers carry out by commissioned research contracts.

2011-2013 **Regional project**. Regione Lombardia-ERSAF-RICCAGIOIA S.C.p.A.: "Strategic programme for the activation of a research laboratory" (Coordinator: Prof. R.C. Foschino)

2009-2011 **Regional Project**. Regione Lombardia: "Valorizzazione delle D.O.C.G. Franciacorta ed Oltrepò Pavese Metodo Classico mediante impiego di lieviti autoctoni per il miglioramento delle produzionei e come marcatori di tipicità (ENOTRACK)" (Coordinator: Prof. R.C. Foschino)

2008-2010 **National Project**. PRIN 2007: "Strategie di analisi e di controllo dello sviluppo di *Brettanomyces/Dekkera* nell'industria enologica" (Coordinator: Prof. R. Foschino)

2005-2007 **Regional Project**. Regione Lombardia: "Selezione e valorizzazione di enococchi autoctoni per la produzione di vino Rosso di Valtellina DOC e Valtellina Superiore D.O.C.G. (SVEVA)" (Coordinator: Prof. R. Foschino).

2003-2004 **National Project**. COFIN 2002: "Analisi comparativa della produzione di proteine ricombinanti umane da ospiti batterici e eucarioti". (Coordinator: Prof. D. Porro).

6.2 PROJECT COORDINATION

2018- **Institutional Project**. University of Milan/Italy/Fondo Giovani_2015_LINEA B: "Strategies for a Sustainable Innovation of the Wine Industry: from the field to the table"

2015-2017 **Institutional Project**. University of Milan/Italy/Fondo Giovani_2015_LINEA B: "Genome editing of wine yeasts and novel wine-based beverages as strategies to boost innovation in wine industry" (INNOWINE)

2014-2017 **International Project**. European project: "Yeasts for the Sustainability in Viticulture and Oenology (YeSVitE, www.yesvite.unimi.it), EU project, 7FP, Marie Curie Actions, IRSES, GA n° 612442 (http://cordis.europa.eu/project/rcn/109193_en.html) (Coordinator: Dr. I. Vigentini).

2014-2016 **Institutional Project**. University of Milan/Italy/Fondo Giovani_2014_LINEA B: "Modulation of Aging-related Innate immunity Cell signaling by novel Microbe-Associated Molecular patterns (MAgIC-MAMs)". (Supervisor: Dr. I. Vigentini. Title WP: "Role of food-related yeasts in the modulation of the innate immunity system in human aging")

7. PUBLICATIONS: ARTICLES IN REFEREED/PEER-REVIEWED JOURNALS

a: both authors contributed equally

*: corresponding author

1. **Vigentini**, I.*, Gebbia, M., Belotti, A., Foschino, R., Roth F.P. (2017) CRISPR/Cas9 system as a valuable genome editing tool for wine yeasts with application to decrease urea production. Frontiers in Microbiology, 8, Accepted. [I.F. 4.076]
2. Fracassetti, D. and **Vigentini**, I. (2017) Occurrence and analysis of sulfur compounds in wine. In: "Grapes and Wines - Advances in Production, Processing, Analysis and Valorization" Ed: Jordão A.M. and Cosme F. InTechOpen. Accepted. ISBN: 978-953-51-5583-6 [I.F.: pending]
3. Cordero-Bueso, G., Mangieri, N., Maghradze, D., Foschino, R., Valdetara, F., Cantoral, JM., **Vigentini**, I.* (2017) Wild grape-associated yeasts as promising biocontrol agents against Vitis vinifera fungal pathogens. Frontiers in Microbiology. In Press. DOI: 10.3389/fmicb.2017.02025 [I.F. 4.076]
4. **Vigentini**, I., Barrera Cardenas S., Valdetara, F., Faccincani, M., Panont, C.A., Picozzi, C., Foschino, R. (2017) Use of native yeast strains for in-bottle fermentation to face the uniformity in sparkling wine production. Frontiers in Microbiology, 8, In Press. DOI: 10.3389/fmicb.2017.01225 [I.F. 4.076]
5. Boiocchi, F., Porcellato, D., Limonta, L., Picozzi, C., **Vigentini**, I., Locatelli, D.P., Foschino, R. (2017) Insect frass in stored cereal products as a potential source of Lactobacillus sanfranciscensis for sourdough ecosystem. Journal of Applied Microbiology, 123, 944-955, DOI: 10.1111/jam.13546 [I.F. 2.099]
6. Valdetara, F., Fracassetti, D., Campanello, A., Costa, C., Foschino, R., Compagno, C., **Vigentini** I.* (2017) A Response Surface Methodology Approach to investigate the effect of sulfur dioxide, pH, and ethanol on DbCD and DbVPR gene expression and on the volatile phenol production in Dekkera/Brettanomyces bruxellensis CBS2499. Frontiers in Microbiology, 8, In Press. DOI: 10.3389/fmicb.2017.01727 [I.F. 4.076]
7. Romano, D., Valdetara, F., Zambelli, P., Galafassi, S., De Vitis, V., Molinari, F., Compagno, C., Foschino, R., **Vigentini**, I.* (2017) Cloning the putative gene of vinyl phenol reductase of Dekkera bruxellensis in Saccharomyces cerevisiae. Food Microbiology, 63, 92-100, DOI: 10.1016/j.fm.2016.11.003 [I.F. 3.759]
8. Picozzi, C., Antoniani, D., **Vigentini**, I., Foschino, R. (2017) Genotypic characterization and biofilm formation of Shiga toxin-producing Escherichia coli. FEMS Microbiology Letters, 364, DOI: 10.1093/femsle/fnw291 [I.F. 1.765]
9. Chierici, M., Picozzi, C., La Spina M.G., Orsi C., **Vigentini** I., Zambrini V., Foschino R. (2016) Strain diversity of Pseudomonas fluorescens group with potential blue pigment phenotype isolated from dairy products. Journal of Food Protection, 79, 1430-1435. doi.org/10.4315/0362-028X.JFP-15-589 [I.F. 1.609]
10. **Vigentini** I., Praz A., Domeneghetti D., Zenato S., Picozzi C., Barmaz A., Foschino R. (2016) Characterization of malolactic bacteria isolated from Aosta Valley wines and evidence of psychrotrophy in some strains. Journal of Applied Microbiology, 120, 934-945 [DOI: 10.1111/jam.13080] [I.F. 2.099]

11. **Vigentini** I., Maghradze D., Petrozziello M., Bonello F., Mezzapelle V., Valdetara F., Failla O., Foschino R. (2016) Indigenous Georgian wine-associated yeasts and grape cultivars to edit the wine quality in a precision oenology perspective. Frontiers in Microbiology, 7, 352. doi: 10.3389/fmicb.2016.00352 [I.F. 4.076]
12. Picozzi, C, Mariotti M., Cappa C., Tedesco B., **Vigentini** I., Foschino R., Lucisano M. (2016) Development of a Type I gluten-free sourdough. Letters in Applied Microbiology, 62, 119-125 DOI: 10.1111/lam.12525; ISSN: 0266-8254 [I.F. 1.575]
13. Moktaduzzaman, M., Galafassi, S., **Vigentini**, I., Foschino, R., Corte, L., Cardinali, G., Piškur, J., Compagno, C. (2016) Strain-dependent tolerance to acetic acid in Dekkera bruxellensis. Annals of Microbiology, 66 351-359. DOI: 10.1007/s13213-015-1115-0; ISSN: 1590-4261 [I.F. 1.122]
14. **Vigentini** I.*a, Gardana C.a, Fracassetti D., Gabrielli M., Foschino R., Simonetti P., Tirelli A., Iriti M.* (2015) Yeast contribution in melatonin, melatonin isomers and tryptophan-ethylester during alcoholic fermentation of grape musts. Journal of Pineal Research, 58, 388-396. DOI: 10.1111/jpi.12223; ISSN: 0742-3098 [I.F. 9.314]
15. Fabrizio V., **Vigentini** I., Parisi N., Picozzi C., Compagno C., Foschino, R. (2015) Heat inactivation of wine spoilage yeast Dekkera bruxellensis by hot water treatment. Letters in Applied Microbiology, 61, 186-191. DOI: 10.1111/lam.12444; ISSN: 0266-8254 [I.F. 1.579]
16. **Vigentini** I.a, De Lorenzis G.a, Fabrizio V., Valdetara F., Faccincani M., Panont C.A., Picozzi C., Imazio S., Failla O., Foschino R. (2015) The vintage effect overcomes the terroir effect: a three year survey on the wine yeast biodiversity in Franciacorta and Oltrepò Pavese, two northern Italian vine-growing areas. Microbiology, 161, 362–373. DOI: 10.1099/mic.0.000004; ISSN: 1350-0872 [I.F. 2.268]
17. Foschino R., De Lorenzis G., Fabrizio V., Picozzi C., Imazio S., Failla O., **Vigentini** I.* (2015) Yeast DNA recovery during the secondary fermentation step of Lombardy sparkling wines produced by Champenoise method. European Food Research and Technology, 240, 885-895. DOI: 10.1007/s00217-014-2393-7; ISSN: 1438-2377 [I.F. 1.433]
18. Picozzi C., Meissner D., Chierici M., Ehrmannb M.A., **Vigentini** I., Foschino R., Vogel R.F. (2015) Phage-mediated transfer of a dextranase gene in Lactobacillus sanfranciscensis and characterization of the enzyme. International Journal of Food Microbiology, 202, 48–53. DOI: 10.1016/j.ijfoodmicro.2015.02.018; ISSN: 0168-1605 [I.F. 3.445]
19. Galafassi S., Toscano M., **Vigentini** I., Zambelli P., Simonetti P., Foschino R., Compagno C. (2015) Cold exposure affects carbohydrates and lipid metabolism, and induces Hog1p phosphorylation in Dekkera bruxellensis strain CBS 2499. Antonie van Leeuwenhoek, 107, 1145-1153. DOI: 10.1007/s10482-015-0406-6; ISSN: 0003-6072 [I.F. 1.944]
20. Moktaduzzaman M., Galafassi S., Capusoni C., **Vigentini** I., Ling Z., Piškur J., Compagno C. (2015) Galactose utilization sheds new light on sugar metabolism in the sequenced strain Dekkera bruxellensis CBS 2499. FEMS Yeast Research, 15, fou009. DOI: 10.1093/femsyr/fou009; ISSN: 1567-1356 [I.F. 2.479]
21. Iriti M. and **Vigentini** I. (2015) Tryptophan-ethylester, the false (unveiled) melatonin isomer in red wine. International Journal of Tryptophan Research, 8, 1–3. DOI: 10.4137/IJTR.S22450; ISSN:1178-6469 [I.F. 0.398]
22. Granato T.M., Romano D., **Vigentini** I., Monti D., Mamone G., Ferranti P., Nitride C., Iametti S., Bonomi F., Molinari F. (2014) New insights on the features of the vinyl phenol reductase from the wine-spoilage yeast Dekkera/Brettanomyces bruxellensis. Annals of Microbiology, 65, 321-329. DOI: 10.1007/s13213-014-0864-5; ISSN: 1590-4261 [I.F. 1.039]

23. **Vigentini** I., Antoniani D., Roscini L., Comasio A., Galafassi S., Picozzi C., Corte L., Compagno C., Dal Bello F., Cardinali G., Foschino R. (2014) Candida milleri species reveals intraspecific genetic and metabolic polymorphism. Food Microbiology 42, 72-81. DOI: 10.1016/j.fm.2014.02.011; ISSN: 0740-0020 [I.F. 3.331]
24. **Vigentini** I.a, Grassi S.a, Sinelli N., Di Egidio V., Picozzi C., Foschino R., Casiraghi E. (2014) Near and Mid Infrared Spectroscopy to detect malolactic biotransformation of Oenococcus oeni in a wine-model. Journal of Agricultural Science and Technology A 4, 475-486 [ISSN 2161-6256] [I.F. 0.690]
25. **Vigentini** I., Fabrizio V., Faccincani M., Picozzi C., Comasio A., Foschino R. (2014). Dynamics of Saccharomyces cerevisiae populations in controlled and spontaneous fermentations for Franciacorta D.O.C.G. base wine production. Annals of Microbiology, 64, 639-651. DOI: 10.1007/s13213-013-0697-7; ISSN: 1590-4261 [I.F. 1.039]
26. **Vigentini** I., Joseph L.C.M., Picozzi C., Foschino R., Bisson L.F. (2013) Assessment of the Brettanomyces bruxellensis metabolome during sulphur dioxide exposure. FEMS Yeast Research, 13, 597-608. DOI: 10.1111/1567-1364.12060; ISSN:1567-1364 [I.F. 2.436]
27. Galafassi S., Toscano M., **Vigentini** I., Piškur J., Compagno C. (2013) Osmotic stress response in the wine yeast Dekkera bruxellensis. Food Microbiology. 36, 316-319. DOI: 10.1016/j.fm.2013.06.011; ISSN: 0740-002 [I.F. 3.374]
28. **Vigentini** I., De Lorenzis G., Picozzi C., Imazio S., Merico A., Galafassi S., Piškur J., Foschino R. (2012) Intraspecific variations of Dekkera/Brettanomyces bruxellensis genome studied using capillary electrophoresis separation of the Intron Splice Site profiles. International Journal of Food Microbiology, 157, 6-15. DOI: 10.1016/j.ijfoodmicro.2012.02.017; ISSN: 0168-1605 [I.F. 3.425]
29. Picozzi C., Volponi G., **Vigentini** I., Grassi S., Foschino R. (2012) Assessment of transduction of Escherichia coli Stx2-encoding phage in dairy process conditions. International Journal of Food Microbiology, 153, 388-394. DOI: 10.1016/j.ijfoodmicro.2011.11.031; ISSN: 0168-1605 [I.F. 3.425]
30. Volponi G., Rooks D.J., Smith D.L., Picozzi C., Allison H.E., **Vigentini** I., Foschino R., Mccarthy A.J. (2012) Characterization of Shiga toxin 2-carrying bacteriophages induced from Shiga-toxigenic Escherichia coli isolated from Italian dairy products. Journal of Dairy Science. 95, 6949–6956. DOI: 10.3168/jds.2012-5831; ISSN: 0022-0302 [I.F. 2.566]
31. **Vigentini** I., Picozzi C., Foschino R. (2011) Intron Splice Site PCR analysis as a tool to discriminate Dekkera bruxellensis strains. Annals of Microbiology, 61, 153-157. DOI: 10.1007/s13213-010-0110-8; ISSN: 1590-4261 [I.F. 0.689]
32. Picozzi C., Bonacina G., **Vigentini** I., Foschino R. (2010) Genetic diversity in Italian Lactobacillus sanfranciscensis strains assessed by Multilocus Sequence Typing and Pulsed Field Gel Electrophoresis analyses. Microbiology, 156, 2035-2045. DOI: 10.1099/mic.0.037341-0; ISSN: 1350-0872 [I.F. 2.957]
33. Lustrato G., **Vigentini** I., De Leonardis A., Alfano G., Tirelli A., Foschino R., Ranalli G. (2010) Inactivation of wine spoilage yeasts Dekkera bruxellensis using low electric current treatment (LEC). Journal of Applied Microbiology, 109, 594-604. DOI: 10.1111/j.1365-2672.2010.04686.x; ISSN: 1364-5072 [I.F. 2.365]
34. Agnolucci M.a, **Vigentini** I.a, Capurso G., Merico A., Tirelli A., Compagno C., Foschino R., Nuti M. (2009) Genetic diversity and physiological traits of Dekkera/Brettanomyces bruxellensis strains isolated during fermentation of Sangiovese grapes. International Journal of Food Microbiology, 130, 238-244. DOI: 10.1016/j.ijfoodmicro.2009.01.025; ISSN: 0168-1605 [I.F. 3.011]
35. **Vigentini** I.a, Picozzi C.a, Tirelli A., Giugni A., Foschino R. (2009) Survey on indigenous Oenococcus oeni isolated from red wines of Valtellina, a cold climate wine-

growing Italian area. International Journal of Food Microbiology, 136, 123-128. DOI: 10.1016/j.ijfoodmicro.2009.09.009; ISSN: 0168-1605 [I.F. 3.011]

36. **Vigentini** I., Fracassetti D., Picozzi C., Foschino R. (2009) Polymorphisms of Saccharomyces cerevisiae genes involved in wine production. Current Microbiology, 58, 211-218. DOI: 10.1007/s00284-008-9310-x; ISSN: 0343-8651 [I.F. 1.330]
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39. **Vigentini** I.a, Brambilla L.a, Branduardi P., Merico A., Porro D., Compagno C. (2005) Heterologous proteins production in Zygosaccharomyces bailii: physiological effects and fermentative strategies. FEMS Yeast Research, 5, 647-652. DOI: 10.1016/j.femsyr.2004.11.006; ISSN: 1567-1356 [I.F. 2.477]
40. Merico A., Capitanio D., **Vigentini** I., Ranzi B.M., Compagno C. (2004) How physiological and cultural conditions influence heterologous protein production in Kluyveromyces lactis. Journal of Biotechnology, 109, 139-146. DOI: 10.1016/j.jbiotec.2003.10.031; ISSN: 0168-1656 [I.F. 2.323]
41. Merico A., Capitanio D., **Vigentini** I., Ranzi B.M., Compagno C. (2003) Aerobic sugar metabolism in the spoilage yeast Zygosaccharomyces bailii. FEMS Yeast Research, 4, 277-283. DOI: 10.1016/S1567-1356(03)00167-3; ISSN: 1567-1356 [I.F. 2.284]

8. OTHER ACTIVITIES

7.1 PEER-REVIEWER ACTIVITY

2011- Electronic Journal of Biotechnology, Austarlian Journal of Grape and Wine Research, South African Journal of Enology and Viticulture, European Research in Food Technology, Frontiers in Microbiology

7.2 ORGANISATION OF SCIENTIFIC MEETINGS

2017 **Executive and Scientific Committee**. Type: International Conference of the European project: "Yeasts for the Sustainability in Viticulture and Oenology" (YeSVitE). Milan, Italy, December 4 (150 participants)

2012 **Organizing and Scientific Committee**. Type: final symposium of the national project: "Valorizzazione delle D.O.C.G. Franciacorta ed Oltrepò Pavese Metodo Classico mediante impiego di lieviti autoctoni per il miglioramento delle produzioni e come marcatori di tipicità" (ENOTRACK). Milan, Italy, October 22 (100 participants)

2008 **Organizing and Scientific Committee**. Type: final symposium of the national project: "Selezione e valorizzazione di enococchi autoctoni per la produzione di vino Rosso di Valtellina DOC e Valtellina Superiore D.O.C.G." (SVEVA). Milan, Italy, June 24 (100 participants)

7.3 COMMISSIONS OF TRUST

2014 **Evaluator**. South Africa-Italy Joint Science and Technology Research Cooperation/The National Research Foundation (NRF)/South Africa.

2013- **Reviewer**. Stellenbosch University/Institute for Wine Biotechnology/South Africa. Master's and PhD's Thesis. Candidates: M Louw (14929724), title "Molecular characterisation of the viable but not culturable state in *Brettanomyces bruxellensis* – impact on wine quality"; Ms NN Mehlomakulu (16703294), Title "Killer activity of selected non-*Saccharomyces* yeasts strains of oenological origin: impact on yeast interactions and potential to control spoilage yeasts"

2005- **Examinator**. Undergraduate and graduate students in their thesis's defences

7.4 INSTITUTIONAL RESPONSIBILITIES

2013- **Member of PhD School in Food Systems**. University of Milan/Italy

9. MAJOR COLLABORATIONS

- **Stellenbosch University**. Institute for Wine Biotechnology, Dep. of Viticulture and Oenology, South Africa (Prof. F. Bauer, Prof. M. Du Toit, Dr. B.Divol, Dr. E. Setati)
- **The Governing Council of the University of Toronto**. Donnelly Centre, Toronto, Canada (Prof. F. Roth)
- **Agencia Estatal Consejo Superior de Investigaciones Cientificas**. Instituto de Ciencias de la Vid y del Vino (CSIC, Universidad de La Rioja, Gobierno de La Rioja) Logroño, Spain (Dr. R. González García)
- **University of Perugia**. Department of Pharmaceutrical Sciences, Perugia, Italy (Prof. G. Cardinali)
- **Jozef Stefan Institute**. Department of Molecular and Biomedical Sciences, Ljubliana, Slovenia (Prof. U. Petrovic)
- **Agrarian University of Georgia**. Tbilisi, Georgia (Prof. D. Maghradze)
- **Lund University**. Department of Biology, Lund, Sweden (Prof. J. Piškur 2004-2014)
- **University of Cádiz**. Cádiz, Spain. (Dr. Gustavo Cordero-Bueso)
- **Geisenheim University**, Geisenheim, Germania (Prof. Paola Corsinovi)
- **University of Burgundy**, Dijon, Francia (Prof. Hervé Alexandre)

10. AWARDS

2012 **International award**. "Le Tecnovisionarie®". Category: WomenFuture, To Joung researchers in Food and Nutrition Sciences. International Conference: "Women&Technologies® 2008-2015/Milan/Italy

2011 **National award**. "Premio Montana alla Ricerca Alimentare" (V edition, 50.000,00 euros) Project title: "Development of a fermented milk product as food vaccine against Enteropathogenic *Escherichia coli*" Gruppo Cremonini spa/Italy

2010 **National award**. The paper entitled: "*Physiological and oenological traits of different Dekkera/Brettanomyces bruxellensis strains under wine-model conditions*. **Vigentini I.,** Romano A.**,** Merico A., Compagno C., Foschino R., Molinari F., Tirelli A., Volonterio G. (2008) FEMS Yeast Research, 8, 1087-1096" received the: "Premio Assoenologi 2010 per la Ricerca Scientifica in Viticoltura ed Enologia".

2004 **Short-Term Fellowship**. Funded by FEMS Society/The Netherlands to carried out the stage of 3 months at Cell and Organism Biology Department, Lund University, Sweden

11. NOTES

10.1 MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2006- **Associated Member**. Società Italiana di Microbiologia Agraria, Alimentare e Ambientale (SIM3A)/Italy

10.2 CAREER BREAKS

2009 **Maternity leave.** February 6th - July 5th, 5 months

Milan, May 30th 2018