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Teaching courses A.A. 2022-23

Natural Ecosystems Microbiology (Environmental Science)
Microbiology (Agricultural Science)
Microbial processes within wastewater treatment (Food Science)
Microbiology (Biotechnology Science)

Associated professor in Agricultural and Environmental Microbiology SSD-AGR16 (1998)
Member of S.I.M. (Society of Industrial Microbiology) (1991 to date).
Member of S.I.M.3A (Società Italiana Microbiologia Agro-Alimentare ed Ambientale) (1992 to date)
Grant: C.N.R.-NATO Advanced Fellowship Program,
"Pollution Laboratory" of "Environmental Science Department" and
AgBiotech - Center for Agricultural Molecular Biology -
Rutgers University in New Jersey (U.S.A.) (1991-1992).
Assistant professor on the Agricultural Microbiology, University of Udine (1988)
Professional consultant at the Agricultural Experimental Centre of Friuli Venezia Giulia Region (1987-1988)
Researcher of the Institute of Food Technology, University of Udine (1987)
Researcher at the Agricultural Microbiology Institute and National Centre of Research of Soil Microbiology,
University of Pisa (1984)
Degree in Agricultural Science at the University of Pisa - Italy (AA 1983-84).

Research projects: principal investigator

2020-21 Nuvisa d.o.o. contract, "**Growth of halophilic microorganisms on algae extracts for polyhydroxyalkanoates production**" (ALALPHA)
2018-20 P.O.R. FESR 2014-2020, Call 2017, activity 1.3.a - Incentives to companies for collaborative activities of industrial research and experimental development - Agrifood specialization areas and strategic production chains, "**Prototyping of multispecific microbial biostimulant inocula for agriculture**"
2018 PRID Start up (LEGION-FVG) **Biomolecular-phenotypic characterization and incidence of *Legionella pneumophila* in Friuli Venezia Giulia**
2011-14, MIUR call 24/12/2010 for industrial research, experimental development, training in the field of molecular biomedicine: "**Project for the Recovery of Iodine through Strategies suitable of environment: PRISMA**", Industrial partner Bracco Imaging S.p.A, Serichim S.r.l., Bruker Italia S.r.l., (36months) with related project training entitled "Training of young researchers with expertise in innovative technologies with particular attention to reducing the environmental impact of production processes in favor of human health" (18 months), MIUR Directorial Decree prot. No. 951 of 29 May 2013 and Directorial Decree MIUR prot. N. 1536 of 7 August 2013. Head of operational unit
2002-04, environment sector, air quality, project "**Biological Treatment of Volatile Organic Compounds in Industrial Gaseous Emissions**" Friuli Venezia Giulia Region - Regional Law FVG 3/98 (24 months)
Scientific Coordinator

2000-02, environment sector, air quality, project "**Biological felling of Volatile Organic Compounds**" Friuli Venezia Giulia Region - Regional Law FVG 26 February 2001 n.4 (24 months) Scientific Coordinator

Contract projects: principal investigator

2020-21 Nuvisa d.o.o., "**Growth of halophilic microorganisms on algae extracts for polyhydroxyalkanoates production**" (ALALPHA)

2020, TMCI-PADOVAN, **Indoor sanitation through Ozox** Contract manager

2019-20, Conegliano Valdobbiadene, **Microbial behaviours within winery waste water treatment plant** Contract manager

2016-19, TMCI-PADOVAN, **Autotrophic microorganisms to polyhydroxyalkanoate (PHA) production.** Contract manager

2008-09, environment sector, air quality, "**Design, construction and start-up of industrial biofiltration prototype**". Companies District Wood Industry, Friuli Venezia Giulia (12 months) Contract manager

2006-08, environment sector, air quality, project "**Feasibility study for the application of biofiltration at industrial level**". Manzano Chair District Companies. (24 months) Contract manager

2004, environment sector, water quality, project "**Removal of nitric nitrogen and COD from the wastewater of the production process**" FABER INDUSTRIE S.p.A. (12 months) Contract manager

2003, environment sector, air quality, "AQUALAND Simac" project, De Longhi S.p.A (6 months) Contract manager

1999-00, environment sector, air quality, project NOVIMPRESA-UE, Action 2.1 - Spread of Innovation - Objective 2 of DOCUP 1997-99 of Friuli-Venezia Giulia Region, (9 months) Contract manager

Participation in other projects

1998-00, soil and biomass sector MURST Thermophilic Project

1997-99, soil and biomass sector, ENEL project

1993-96, food sector, CNR-RAISA project,

1993-95, environment sector, Manifattura Tabacchi, State Monopoly, Trieste, contract manager.

1988-90, soil and biomass sector, CNR-ENERGETICA 2 project

1988-91, composting sector, Regional Center for Agricultural Experimentation of Friuli Venezia Giulia,

1986-88, soil and biomass sector, CNR-IPRA project

PRINCIPALI LAVORI – SETTORE AMBIENTE

Civilini M., Colautti A., Brunello A., Saccomanno N., Marchiol L., Foscari A., Iacumin L. Impact of CeO₂ nanoparticles on the microbiota of *S. flos-cuculi* L. (Caryophyllaceae) rhizosphere. Under review in *Nanomaterials*.

Colautti A., Marcello Civilini M., Contin M., Emilio Celotti E., Iacumin L. "Organic vs Conventional: impact of cultivation treatments on the soil microbiota in the vineyard". Under review in *Frontiers in Microbiology*.

Iacumin L., Felice A., Franchi M., De Martin S., Bortolomeazzi R., Moret S., Lucci P., Vitacolonna N., Civilini M. (in preparation) Molecular and phenotypic characterization of *Legionella pneumophila* isolated in Friuli Venezia Giulia

Brunello A., Civilini M., De Martin S., Felice A., Franchi M., Iacumin L., Saccomanno N., Vitacolonna N. (2022) **Machine learning-assisted environmental surveillance of Legionella: A retrospective observational study in Friuli-Venezia Giulia region of Italy in the period 2002–2019**. Informatics in Medicine Unlocked 28 (2022) 100803

Felice A, Franchi M, De Martin S, Vitacolonna N, Iacumin L, Civilini M. (2019) **Environmental surveillance and spatio-temporal analysis of Legionella spp. in a region of northeastern Italy (2002-2017)**. PLoS One. 2019 Jul 9;14(7):e0218687. doi: 10.1371/journal.pone.0218687.

- Iacumin L., Felice A., Franchi M., De Martin S., Vitacolonna N., Ortali A., Ballus V., Civilini M. (2019) Caratterizzazione molecolare di *Legionella pneumophila* isolata in Friuli Venezia Giulia. Convegno Nazionale "Legionellosi: una malattia prevenibile con una gestione integrata del rischio ambientale". 30 maggio-1 giugno, Bari, Italy.
- Civilini M. 2017. Sostenibilità ambientale delle attività produttive, Agribusiness Paesaggio & Ambiente -- Vol. XX, pp. 48-56. ISSN: 2038-3371; UniUD Repository: 11390/1135103
- M. Civilini, G. Cortella. 2016. *Consideration on Biofiltration as a Technology to Remove Volatile Organic Compounds from Industrial Emissions*. Proc. 12th Int. Conference on Energy, Environment, Ecosystems and Sustainable Development, 29-31 Jan 2016, Venezia (I), 90-97, 2016. ISBN:9781618043610; ISSN: 2227-4359; UniUD Repository: 11390/1078599
- Babuin E., Civilini M., Cortella G. (2013) **Biofiltration for sustainable production**. In Paduano E., Villmer F.J. Ed. "Production Engineering and Management", Proceedings 3rd International Conference 26th – 27th September 2013, Trieste, Italy, Hochschule Ostwestfalen-Lippe Università degli Studi di Trieste, ISBN:978-3-941645-09-7, p. 17-26.
- Cortella G, Civilini M (2013). Biological potentiality to remove organic solvents from exhausted air emissions. In: RECENT ADVANCES in ENERGY, ENVIRONMENT, ECOSYSTEMS and DEVELOPMENT. ENERGY, ENVIRONMENTAL AND STRUCTURAL ENGINEERING SERIES, vol. 12, p. 94-99, Rhodes: Long C.A., Mastorakis N.E., Mladenov V., ISBN: 978-1-61804-202-6, ISSN: 2227-4359
- Civilini M, Cortella G (2012). Solvent emissions controlled by bioreactor. ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, vol. 11, ISSN: 1843-3707
- Civilini M., Cortella G. (2011), VOCs monitoring of polluted air emissions through biofiltration. "*Biotechniques for Air Pollution Control IV*" Biotechniques 2011, Proceedings of the 4th International Conference on Biotechniques for Air Pollution Control, A Coruna, Spain, October 12-14, 2011, 95-102.
- Civilini M., Cortella G. (2010), Behaviours of Biofilter pilot plant at low temperature treating VOCs pollution of industrial emissions. Duke-UAM 2010 Conference on Biofiltration for Air Pollution Control, Washington, DC, USA. October 28-29, 2010 Proceedings: p. 317-321
- Civilini M., Cortella G. (2010), **Behaviours of Biofilter pilot plant at low temperature treating VOCs pollution of industrial emissions**. In Bartacek J., Kennes C., Lens P. Ed. "*Biotechniques for Air Pollution Control*", CRC Press, Leiden, NL, ISBN: 978-0-415-58270-4, 207-214.
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- Civilini M. (2009) **Identification and characterization of bacteria isolated under selective pressure of Volatile Organic Compounds**. J. Environ. Biol. 30(1), 99-105.
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- Tittarelli F., Petruzzelli G., Pezzarossa B., Civilini M. and Sequi P. (2007) Qualità and agronomic use of compost. In L.F. Diaz, M. De Bertoldi, W. Bidlingmaier and E. Stentiford Ed. "*Compost Science and Technology*" Elsevier, Amsterdam, The Netherlands, ISBN-13:9780080439600, ISSN:1478-7482, 119-157.
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- Civilini M., Ceccon L, De Bertoldi M. (2006) **Biological waste water treatments for metallurgic industries**. Annals of Microbiology, 56 (1) 7-12.
- Civilini M, Tell G (2006). RT-PCR amplification procedures of mRNA for the detection of gene expression in compost. In: SOLVENT MANAGEMENT SYSTEMS – REDUCTION OF THE SOLVENT EMISSIONS IN SOME

INDUSTRIAL SECTORS (SMS VOSLESS), Project Final Conference, 12-13 October, Nova Gorica, Slovenia.
Nova Gorica, Slovenia, 12-13 October, 2006

- Bellina E, de Bertoldi M, Civilini M (2006) Ruolo dei microrganismi nel ciclo biogeochimico dell'arsenico e loro possibile utilizzo per la detossificazione di siti contaminati. SIMTREA: Il Ruolo della Microbiologia nei settori Agroalimentare e Ambientale. Bologna, 17- 18 luglio 2006.
- Civilini M. (2006) Trattamenti biologici per la riduzione dei composti organici volatili in emissioni gassose dell'industria del legno. SIMTREA: Il Ruolo della Microbiologia nei settori Agroalimentare e Ambientale. Bologna, 17- 18 luglio 2006.
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- Civilini M. (2004) *Trattamento biologico di composti organici volatili in emissioni gassose industriali*. LEGGE REGIONALE 3/98, art.16; Relazione Tecnico Scientifica PROGETTO REGIONE FRIULI VENEZIA GIULIA (30 dicembre 2004), 46 pagine
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Udine, 16 settembre 2020