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| PERSONAL INFORMATION | Maurizio Gualtieri |
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|  | Via San Martino, 20, 20019 Settimo Milanese (MI) (Italy) |
| +39 3382797357 +39 3491557762 |
| maurizio.gualtieri@enea.it  https://www.researchgate.net/profile/Maurizio\_Gualtieri |
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| WORK EXPERIENCE |  |

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| 1 September 2016 – Present | Researcher |  |
| ENEA - Italian National agency for new technologies, Energy and sustainable economic development, Rome (Italy) SSPT-MET-INAT (Bologna, IT)  Chemical characterization of air pollution by state of the art sampling approaches and off-line analyses and by high temporal resolution monitors for organic species and ions. Evaluation of the potential impacts of airborne pollutants on human health and environment. |  |

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| 1 September 2015 – 31 August 2016 | Professor in Toxicology |
| University of Littoral Côte D'Oplale (ULCO) - Unit of Chemistry and Interaction with living organisms.  Head of the Laboratory of Chemistry and Toxicology of atmospheric emissions  Evaluation in *in vitro* models of the effects of indoor or outdoor air pollutants (particulate matter, PM2.5, UFP and VOCs); inflammation, genotoxicity mRNA and epigenetic modification of exposed cells. |

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| 17 December 2012 – 31 August 2015 | Researcher |
| ENEA - Italian National agency for new technologies, Energy and sustainable economic development, Rome (Italy)  Evaluation of the sustainability of biomass fired heaters and evaluation of particulate and gaseous emissions from biomass-fired boilers. Development of technologies for the particulate and gaseous emission abatement. Assessment of the sustainability energy/heat chain. |

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| 01 February 2012 – 16 December 2012 | Post-doc |
| University of Milano-Bicocca, Milan (Italy) |
| Research activities, project title “Human co-culture: in vitro blood air barrier preparation in biosafety level 2 lab and analysis of UFP and NPs”. Analysis of the biological impacts of environmental ultrafine particles (UFP) and of engineered nanoparticles (NP) on human lung cell lines. |

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| 10 January 2011 – 09 January 2012 | High expertise Technician |
| University of Milano-Bicocca, Milan (Italy) |
| Supervision of the technical activities and support to the research of the bio-safety level 2 cell laboratory. Cell line cultures maintenance and treatment. Biochemical assays and immunocytochemistry analyses. |

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| 01 January 2010 – 31 December 2010 | Post-doc |
| University of Milano-Bicocca, Milan (Italy) |
| Research activities, project title “Molecular markers of damage in A549 cell line exposed to particulate matter”. Sampling of environmental particulate matter and evaluation of its biological effects of human lung epithelial cell lines.  Assistant Professor   |  | | --- | | University of Milano-Bicocca, Milan (Italy) | | Temporary position (May 2010 – June 2010) as Assistant Professor for the teaching course of “Laboratory of applied cell biology”. Teaching activities and laboratory application of cell biology techniques for master degree students in Biology and Environmental Sciences. | |
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| 07 January 2009 – 31 December 2009 | Post-doc |
| Norwegian Institute of Public Health, Division of Environmental Medicine, Dept. of Air Pollution and Noise, Oslo (Norway) |
| Research activity in Cell Biology and Nanotoxicology. Research project title “Nano-sized versus larger particles: Does extremely small size introduce unique mechanisms for particle-induced toxicity?”. Setup of exposure condition to nanoparticles, evaluation of early marker of response (qPCR) and pro-inflammatory potential. |

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| 01 January 2006 – 31 December 2008 | Post-doc |
| University of Milano-Bicocca, Milan (Italy) |
| Research activities, project title “Molecular markers of damage in A549 cell line exposed to particulate matter”. Sampling of environmental particulate matter and evaluation of its biological effects of human lung epithelial cell lines.  Assistant Professor   |  | | --- | | University of Milano-Bicocca, Milan (Italy) | | Temporary position (May 2008 – June 2008, April 2007 – June 2007 and April 2006 – June 2006) as Assistant Professor for the teaching course of “Laboratory of applied cell biology”. Teaching activities and laboratory application of cell biology techniques for master degree students in Biology and Environmental Sciences. | |

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| EDUCATION AND TRAINING |  |

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| 01 November 2002 – 31 October 2005 | Ph.D. in Environmental Sciences |  |
| University of Milano-Bicocca, Milan (Italy) | |
| Research project title "Evaluation of cell damage in pulmonary cell lines exposed to particulate matter" (Cell biology, biochemistry, transmission electron microscopy, environmental safety) | |

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| 01 October 1997 – 12 March 2002 | Master degree in Environmental Sciences |  |
| University of Milano-Bicocca, Milan (Italy) | |
| English, Physic, Inorganic and Organic Chemistry, Biology, Applied Ecology. Dissertation thesis “Characterization of tire debris components with potential impact on human health”. | |

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| PERSONAL SKILLS |  |

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| Mother tongue(s) | Italian | | | | |
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| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
| Listening | Reading | Spoken interaction | Spoken production |  |
| English | C1 | C1 | C1 | C1 | C1 |
|  | Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  [Common European Framework of Reference for Languages](http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr) | | | | |

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| Awards and Patents | Award  **National scientific qualification** to function as **Associate Professor (BIO/06)** in Italian Universities released by The Italian Ministry of Education, Universities and Research (MIUR) February, 24, 2014.  Travel grant for young researcher from Lombardy Region “Sovvenzione Globale INGENIO” December, 19, 2006 (guest scientist at the Norwegian Institute of Public Health, Division of Environmental Medicine, Dept. of Air Pollution and Noise, Oslo – Norway).  Patent  Co-inventor of the Patent n. MI2012A001759, titled "Method and device for the detection and rapid quantification of atmospheric particulates in a sample and/or of the oxidative power". |

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| Job-related skills | Excellent skills in cell lines culturing and maintenance. Excellent skills in molecular and cellular biology techniques such as protein extraction, SDS-PAGE and Western Blotting. Excellent skills in fluorescent and conventional microscopy samples preparation,  immunocytochemistry and immunohistochemistry. Good skills in flow cytometry, sample preparation and analysis. Good skills in fixation, embedding and staining of samples suitable for transmission electron microscopy (TEM) analyses. Good skills on Jeol-JEM 1220 electron microscope. Good skills in environmental particles sampling and in sampling of particles emitted from biomass fuelled boilers and appliances.  Basic skills in real time PCR.  Basic competence on High Performance Liquid Chromatography (HPLC) technique.  Basic skills in Life Cycle Assessment (LCA) and Carbon Footprint (CF) evaluation.  Reviewer for International Journal such as: Toxicology in Vitro, Toxicology Letters, Plos One, Cytokine, Mutation Research, Nanotoxicology and Toxicological Sciences |

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| ADDITIONAL INFORMATION |  |

Publications and meetings

Appendix A reports the list of peer reviewed publications.

**APPENDIX A**

Publications on peer-reviewed international journals

1) Milani M., Pucillo F.P., Ballerini M., Camatini M., Gualtieri M., Martino S.

First evidence of tire debris characterization at the nanoscale by focused ion beam

Mater Characterization 52 (4-5), (2004) 283-288.

2) Gualtieri M., Rigamonti L., Galeotti V., Camatini M.

Toxicity of tire debris extracts on human lung cell line A549

Toxicology in Vitro 19(7), (2005) 1001-1008.

3) Gualtieri M., Andrioletti M., Mantecca P., Vismara C., Camatini M.

Impact of tire debris on in vitro and in vivo systems.

Particles and Fiber Toxicology, (2005) 2:1.

4) Gualtieri M., Andrioletti M., Vismara C., Milani M.,Camatini M.

Toxicity of tire debris leachates.

Environment International 31 (2005), 723-730.

5) Mantecca P., Gualtieri M., Vismara C., Andrioletti M., Bacchetta R., Vailati G., Camatini M.

Tire debris organic extract affects Xenopus laevis development

Environment International 33 (2007) 642–648.

6) Beretta E., Gualtieri M., Botto L., Palestini P., Miserocchi G., Camatini M.

Organic extract of tire debris causes localized damage in the plasma membrane of human lung epithelial cells.

Toxicology Letters 173 (2007) 191–200.

7) Gualtieri M., Mantecca P., Cetta F., Camatini M.

Organic compounds in tire particle induce reactive oxygen species and heat-shock proteins in the human alveolar cell line A549

Environment International 34 (2008) 437–442.

8) Gualtieri M, Mantecca P, Corvaja V, Longhin E, Perrone MG, Bolzacchini E, Camatini M.

Winter fine particulate matter from Milan induces morphological and functional alterations in human pulmonary epithelial cells (A549).

Toxicol Lett. 188(1): (2009) 52-62.

9) Mantecca P, Sancini G, Moschini E, Farina F, Gualtieri M, Rohr A, Miserocchi G, Palestini P, Camatini M.

Lung toxicity induced by intratracheal instillation of size-fractionated tire particles.

Toxicol Lett. 189(3): (2009) 206-14.

10) Gualtieri M., Øvrevik J., Holme JA., Perrone M.G., Bolzacchini E., Schwarze P E., Camatini M.

Differences in cytotoxicity versus pro-inflammatory potency of different PM fractions in human epithelial lung cells.

Toxicology in Vitro 24 (2010) 29–39

11) Perrone MG, Gualtieri M, Ferrero L, Lo Porto C, Udisti R, Bolzacchini E, Camatini M..

Seasonal variations in chemical composition and in vitro biological effects of fine PM from Milan

Chemosphere, , 78(11) (2010) 1368-77.

12) Mantecca P, Farina F, Moschini E, Gallinotti D, Gualtieri M, Rohr A, Sancini G, Palestini P, Camatini M.

Comparative acute lung inflammation induced by atmospheric PM and size-fractionated tire particles.

Toxicol Lett. 198 (2010) 244–254

13) Gualtieri M., Franzetti A., Mantecca P., Longhin E., Bestetti G., Bolzacchini E., Camatini M.

In vitro effects of chemical and microbiological characterized Milan particulate matter.

Procedia Environmental Sciences 4, (2011) 192–197.

14) Gualtieri M., Øvrevik J., Mollerup S., Asare N., Longhin E., Dahlman H.J., Camatini M., Holme J.A.

Airborne urban particles (Milan winter-PM2.5) cause mitotic arrest and cell death: Effects on DNA, mitochondria, AhR binding and spindle organization.

Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis 713, (2011) 18 – 31.

15) Camatini M., Corvaja V., Mantecca P., Gualtieri M.

PM10-biogenic fraction drives the seasonal variation of pro-inflammatory response in A549 cells.

Environmental Toxicology 27, (2012) 63 – 73.

16) Gualtieri M., Longhin E., Mattioli M., Mantecca P., Tinaglia V., Mangano E., Proverbio MC., Bestetti G., Camatini M., Battaglia C.

Gene expression profiling of A549 cells exposed to Milan PM2.5.

Toxicology Letters 209 (2), (2012) 136 – 145.

17) Sironi L., Freddi S., Caccia M., Pozzi P, Rossetti L, Pallavicini P., Donà A., Cabrini E, Gualtieri M., Rivolta I, Panariti A., D’Alfonso L., Collini M., Chirico G.

Gold Branched Nanoparticles for Cellular Treatments

J. Phys. Chem. C (2012), 116, 18407−18418

18) Sandberg WJ., Låg M., Holme JA., Friede B., Gualtieri M., Kruszewski M., Schwarze PE., Skuland T., Refsnes M.

Comparison of non-crystalline silica nanoparticles in IL-1ß release from macrophages.

Particle and Fibre Toxicology (2012), 9:32

19) Mantecca P., Gualtieri M., Longhin E., Bestetti G., Palestini P., Bolzacchini E., Camatini M.

Adverse biological effects of milan urban pm looking for suitable molecular markers of exposure

Chemical Industry & Chemical Engineering Quarterly 18 (4) (2012) 635−641.

20) Gualtieri M., Skuland T., Iversen TG, Låg M., Schwarze P., Bilanicova D., Pojana G,. Refsnes M.

Importance of agglomeration state and exposure conditions for uptake and pro-inflammatory responses to amorphous silica nanoparticles in bronchial epithelial cells.

Nanotoxicology, 6(7), (2012) 700–712;

21) Bengalli R, Mantecca P, Camatini M, Gualtieri M

Effect of nanoparticles and enviromental particles on a cocolture model of the air-blood barrier

BioMed Research International, Volume 2013, Article ID 801214, http://dx.doi.org/10.1155/201.3/801214

22) Bengalli R, Molteni E, Longhin E, Refsnes M, Camatini M, Gualtieri M.

Release of IL-1β Triggered by Milan Summer PM10: Molecular Pathways Involved in the Cytokine Release,

BioMed Research International Volume 2013 (2013), Article ID 158093 http://dx.doi.org/10.1155/2013/158093

23) Longhin E, Pezzolato E, Mantecca P, Holme JA, Franzetti A, Camatini M, Gualtieri M

Season linked responses to fine and quasi-ultrafine Milan PM in cultured cells.

Toxicology in Vitro 27 (2013) 551-559, doi: http://dx.doi.org/10.1016/j.tiv.2012.10.018.

24) Perrone M.G., Gualtieri M., Consonni V., Ferrero L., Sangiorgi G., Longhin E., Ballabio D., Bolzacchini E., Camatini M.

Particle size, chemical composition, seasons of the year and urban, rural or remote site origins as determinants of biological effects of particulate matter on pulmonary cells.

Environmental Pollution 176 (2013) 215 – 227

25) Moschini E., Gualtieri M., Colombo M., Fascio U., Camatini M., Mantecca P.

The modality of cell–particle interactions drives the toxicityof nanosized CuO and TiO2in human alveolar epithelial cells.

Toxicology Letters 222 (2013) 102– 116

26) Longhin E., Holme J.A., Gutzkow K. B., Arlt V.M., Kucab J.E., Camatini M., Gualtieri M.

Cell cycle alterations induced by urban PM2.5 in bronchial epithelial cells: characterization of the process and possible mechanisms involved

Particle and Fibre Toxicology 2013, 10:63

27) Capasso L., Camatini M., Gualtieri M.

Nickel oxide nanoparticles induce inflammation and genotoxic effect in lung epithelial cells.

Toxicology Letters 226 (2014) 28–34

28) Gualtieri M., Capasso L., D’Anna A., Camatini M.

Organic nanoparticles from different fuel blends: in vitro toxicity and inflammatory potential

Journal of Applied Toxicology, 34 (2014), 1247–1255

29) Ciriello F., Gualtieri M., Longhin E., Ruffo R., Camatini M., Parenti P.

A new method and tool for detection and quantification of PM oxidative potential

Environmental Science and Pollution Research, 2015 DOI 10.1007/s11356-015-4551-2

30) Capasso L., Longhin E., Caloni F., Camatini M., Gualtieri M. Synergistic inflammatory effect of PM10 with mycotoxin deoxynivalenol on human lung epithelial cells.

Toxicon 104 (2015) 65-72

31) Longhin E., Capasso L., Battaglia C., Proverbio MC., Cosentino C., Cifola I., Mangano E., Camatini M., Gualtieri M.

Integrative transcriptomic and protein analysis of human bronchialBEAS-2B exposed to seasonal urban particulate matter

Environmental Pollution, 209 (2016) 87-98

32) Lucotti A., Catelani T., Ciriello F., Gualtieri M., Parenti P., Camatini M., Zerbi G. Resonant Raman-based cytochrome C biosensor as a tool for evaluating the oxidative properties of the diesel exhaust particulate matter. J. Raman Spectrosc. (2016) DOI 10.1002/jrs.4905

33) Longhin E., Gualtieri M., Capasso L., Bengalli R., Mollerup S., Holme AJ., Ovrevik J., Casadei S., Di Benedetto C., Parenti P., Camatini M. Physico-chemical properties and biological effects of diesel and biomass particles. Environmental Pollution 215 (2016) 366-375

34) Landkocz Y., Ledoux F., André V., Cazier F., Genevray P., Dewaele D., Martin P.J., Lepers C., Verdin A., Courcot L., Boushina S., Sichel F., Gualtieri M., Shirali P., Courcot D., Billet S. Fine and ultrafine atmospheric particulate matter at a multi-influenced urban site: Physicochemical characterization, mutagenicity and cytotoxicity. Environmental Pollution 221 (2017) 130 – 140.

Publications on peer-reviewed national journals

1) Zerbi G., Ferruggiari A., Fustella G., Tommasini M., Mantecca p., Gualtieri M., Cetta F., Camatini M.

Preliminary observation on the interactions between fine atmospheric particulate matter (PM2.5) and human alveolar epithelial cells (A549).

Chemical Engineering Transaction 16, 387 – 94, 2008.

2) Gualtieri M., Mantecca P., Corvaja V., Bolzacchini E., Fustella G., Zerbi g., Camatini M. Fine PM and health: in vitro results.

Chemical Engineering Transaction 16, 411 – 18, 2008.

3) Zerbi G., Cetta F., Bottani C., Ferrugiari A., Tommasini M., Mantecca P., Dhamo A., Gualtieri M., Camatini M.

Host-particle interactions in the pathogenesis of health injury from air pollution: Use of Raman Scattering Spectroscopy in the analysis of the mutual relationships between PM and cell membranes.

GIMT - Giornale Italiano delle Malattie del Torace 63, Issue 6, 2009, 431-437.

3) Camatini M., Gualtieri M., Mantecca P.

Particles and health: state of the research.

Chemical Engineering Transaction 22, 1 – 14, 2010. DOI 10.3303/CET1022001

4) Longhin E., Pezzolato E., Mantecca P., Bolzacchini E., Camatini M.

Biological effects of Milan PM: the role of particles dimension and season of sampling.

Chemical Engineering Transaction 22, 23 – 28, 2010. DOI 10.3303/CET1022003

5) Moschini E., Gualtieri M., Gallinotti D., Pezzolato E., Fascio U., Camatini M., Mantecca P. Metal oxide nanoparticles induce cytotoxic effects on human lung epithelial cells A549

Chemical Engineering Transaction 22, 29 – 34, 2010. DOI 10.3303/CET1022004

6) Magatti G., Bellantoni C., Cavallotti M., Benocci R., Gualtieri M., Camatini M.

Energy consumption analysis and carbon footprint of a building of the University of Milano-Bicocca: starting point for a sustainability report

Energia, Ambiente e Innovazione 3-4/2013

7) Stoppiello, G., Palma, V., Hugony, F., Meloni, E., Gualtieri, M.

Catalytic wall flow filters for the reduction of biomass boilers emissions

Chemical Engineering Transactions Volume 37, 2014, Pages 19-24

Chapter in books

1) Camatini M. and Gualtieri M. “The cytoskeleton and cell movement” in “The cell: a molecular approach, III“ ed. 2004, Cooper and R.E. Hausman.

Piccin editore, 435-483.

2) Camatini M., Gualtieri M., Mantecca P. “Gli aspetti tossicologici in-vitro e in-vivo” in “Particelle in Atmosfera Conosciamole Meglio” Ed. Villaggio Globale 2010.

3) Camatini M., Gualtieri M., Sancini G. Impact of the Airborne Particulate Matter onthe Human Health

November 2016 DOI: 10.1002/9783527336449.ch10

In book: Atmospheric Aerosols: Life Cycles and Effects on Air Quality and Climate, pp.597-643

4) Gualtieri M., Ledoux F., Verdin A., Billet S., Martin P., Courcot D. Particulate Matter Physico-Chemical Characterization and in vitro Toxicological Effects. In Airborne Particles: Origin, Emissions and Health Impacts, Chapter: 12, Publisher: Nova Science Publisher, Editors: Dr. Prashant Kumar. 2017

Patent

Method and device for the detection and rapid quantification of atmospheric particulates in a sample and/or of the oxidative power

Patent cooperation treaty application, april 2014

PARENTI, Paolo ; CIRIELLO, Francesco ; GUALTIERI, Maurizio ; RUFFO, Riccardo ; CAMATINI, Marina, Carla