



Marzia Bruna Gariboldi



UNIVERSITY OF INSUBRIA



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Contact data

Assistant Professor

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Biography

Education - Marzia B. Gariboldi received her degree in Biological Sciences in February 1994, from the University of Milan, with a thesis concerning the synergic action of Interleukin-1 and Doxorubicin on human ovarian carcinoma cell lines. In 2000 she obtained the Specialization in Pharmacology, from University of Pavia, with a thesis entitled "Antiproliferative effect, in vitro and in vivo, of the piperidine nitroxide Tempol on a glioma cell line".

Career - From 1994 to 1999 she had a permanent position at the Institute of Pharmacology, University of Milan and from 1999 until now she is Assistant Professor at the University of Insubria. In 1994 and 1995 she won two fellowships from University of Milan and from Research National Council, respectively. From January to December 1995 she was Guest Researcher of the Laboratory of Molecular Pharmacology, Basic Science, National Cancer Institute, National Institutes of Health, Bethesda, MD, U.S.A (Dr. Yves Pommier). She is member of the American Association for Cancer Research, of the Italian Association of Pharmacology and of the Italian Association of Cell Culture.

Qualifications and awards

1994 – Degree in Biological Science
1994 – Fellowship of the University of Milan
1995 – Fellowship of the Research National Council
2000 – Specialization in Pharmacology

Research interests

The main Dr. Gariboldi's research interests are represented by experimental oncology and antineoplastic pharmacology. In particular she studied:

- 0 mechanisms of the intrinsic and spontaneous resistance to antineoplastic drugs on human carcinoma cell lines;
- 1 effects of the oxidative stress on the response of tumor cell lines to cytotoxic drugs;
- 2 involvement of DNA repair mechanisms in the response of tumor cell lines to camptotecin;
- 3 role of GADD45 in the sensibility of cancer cell lines to antiproliferative drugs;
- 4 role of apoptosis in the cytotoxic effect of the piperidine nitroxide

Tempol;

-5 potentiation of the antiproliferative effects of clinically used antineoplastic drugs by the piperidine nitroxide Tempol;

-6 role of the p52/p21 system in the resistance to doxorubicin;

-7 new chemical compounds for photodynamic therapy;

-8 role of STAT proteins in the response of tumor cell lines to doxorubicin;

-9 new platinum-derived compound for chemotherapy.

Teaching experience and appointments

From 1997 to 1999: integrative lessons for "Applied Pharmacology", University of Milan, Degree in Biological Sciences.

From 1999 to 2000: integrative lessons for "Pharmacology", University of Insubria, Degree in Biology .

From 2000 until now: teacher for "Laboratory of Cellular and Molecular Pharmacology", undergraduate degree in Health Biology.

She is member of the Plan of Study committee for the undergraduate degree in Health Biology and for the graduate Degree in Biology Applied to Biomedical Research.

Representative publications

Pommier Y., Fujimori A., Hoki Y., Gupta M. and Gariboldi M. DNA Topoisomerase I inhibitors and multidrug resistance. In Gupta S. and Tsuruo T. (Eds.): Multidrug resistance in cancer cells, John Willey Oxford, pp 119-135, 1996.

Marzia B. Gariboldi. and Elena Monti. Antiproliferative effects of interleukin-1 ? and nitric oxide release in a human ovarian carcinoma cell line. International Journal Oncology, 9: 499-503, 1996.

E. Dolfini, T. Dasdia, G. Arancia, A. Molinari, A. Calcabrini, R.J. Scheper, M.J. Flens, M.B. Gariboldi and E. Monti. Characterization of a clonal human colon adenocarcinoma line intrinsically resistant to doxorubicin. British Journal of Cancer, 76: 67-76, 1997.

Marzia B. Gariboldi, Simona Lucchi, Claudia Caserini, Rosanna Supino, Cesare Oliva and Elena Monti. Antiproliferative effect of the piperidine nitroxide TEMPOL on neoplastic and non-neoplastic mammalian cell lines. Free Radical Biology and Medicine, 24: 913-923, 1998.

France Carrier, Philippe T. Georgel, Philippe Pourquier, Mellissa Blake, H. Udo Kontny, Michael J. Antinore, Marzia Gariboldi, Timothy G. Myers, John N. Weinstein, Yves Pommier, and Albert J. Fornace Jr. Gadd45, a p53-responsive stress protein, modifies DNA accessibility on damaged chromatin. Mol. Cell. Biol. 19: 1673-1685, 1999.

Marzia B. Gariboldi, Valeria Rimoldi, Rosanna Supino, Enrica Favini and Elena Monti. The nitroxide TEMPOL induces oxidative stress, p21waf1/cip1 and cell death in HL60 cells. Free Radical Biology and Medicine 29:633-641, 2000.

Monti E, Supino R, Colleoni M, Costa B, Ravizza R, Gariboldi MB.
The piperidine nitroxide TEMPOL impairs mitochondrial function and induces apoptosis in HL60 cells. *J Cell Biochem* 82: 271-276, 2001.

Marzia B. Gariboldi, Raffaella Ravizza, Emanuela Marras, Gianpaolo Perletti, Alessandra De Simone, Francesco Piccinini and Elena Monti.
Resistance of human leukemic cell lines to 1- β -D-arabinofuranosylcytosine: characterization of an experimental model. *Int J Oncol* 18:1245-1249, 2001.

Meschini S., Marra M., Calcabrini A., Monti E., Gariboldi M., Dolfini E., Arancia G.
Role of the lung resistance related protein (LRP) in the drug sensitivity of cultured tumor cells. *Toxicology in vitro* 16: 389-398, 2002.
Marzia B. Gariboldi, Laura Regianini, Raffaella Ravizza, Claudio Petterino, Massimo Castagnaro, Gaetano Finocchiaro and Elena Monti.
The piperidine nitroxide tempol as a potential new agent for the therapy of gliomas: in vitro and in vivo effects. *European Journal of Cancer* 39 (6):829-37, 2003.

Marzia B. Gariboldi, Raffaella Ravizza, Loredana Riganti, Stefania Meschini, Annarica Calcabrini, Giuseppe Arancia, Ersilia Dolfini and Elena Monti.
Molecular determinants of the doxorubicin intrinsic resistance (MDR) in human cancer cell lines. *International J. Of Oncology* 22(5):1057-64, 2003.

Stefano Banfi, Enrico Caruso, Stefania Caprioli, Luigi Mazzagatti, Gianfranco Canti, Raffaella Ravizza, Marzia Gariboldi and Elena Monti.

Photodynamic Photodynamic effects of porphyrin and chlorin photosensitizers in human colon adenocarcinoma cells. *Bioorg Med Chem.* 12(18):4853-60, 2004.

Raffaella Ravizza, Elena Cereda, Elena Monti and Marzia B. Gariboldi.
The piperidine nitroxide Tempol potentiates the cytotoxic effects of temozolomide in human glioblastoma cells. *International J. Of Oncology* 25(6):1817-22, 2004.

Raffaella Ravizza, Marzia B. Gariboldi, Laura Pessarelli and Elena Monti.
Role of the p53/p21 system in the response of human colon carcinoma cells to Doxorubicin. *Biomed Central Cancer* 4: 92, 2004.

Elena Monti, Marzia Gariboldi, Alessandro Maiocchi, Emilio Marengo, Claudio Cassino, Elisabetta Gabano, Domenico Osella.
Cytotoxicity of platinum (II) conjugated model. The effect of chelating arms and leaving group on cytotoxicity: a QSAR approach. *Journal of Medicinal Chemistry* 48:857-866, 2005.

Mauro Ravera, Claudio Cassino, Elena Monti, Marzia Gariboldi, Domenico Osella.
Enhancement of the cytotoxicity of titanocene dichloride by aging in organic co-solvent. In press: *Journal of Inorganic Biochemistry* (2005).

Marzia B. Gariboldi, Francesca Terni, Raffaella Ravizza, Stefania Meschini, Manuela Marra, Maria Condello, Giuseppe Arancia and Elena Monti.

The piperidine nitroxide Tempol modulates anthracycline resistance in mdr breast cancer cells. In press: *Free Radical Biology and Medicine* (2005).