



Elena Monti

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Contact data

Associate Professor

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Biography

Prof. Elena Monti received her Degree in Biology (1980) and her Ph.D. in Pharmacology (1984) at the University of Milan. Positions held and dates: Senior Research Technician at the Institute of Pharmacology of the University of Milan School of Sciences (1985-92); Visiting Associate at the Clinical Pharmacology Branch of the National Cancer Institute, National Institutes of Health (Bethesda, USA) (1991); Research Associate at the Institute of Pharmacology of the University of Milan School of Sciences (1992-98); Associate Professor of Pharmacology at the University of Insubria (1998 to present). Member of the American Association for Cancer Research, of the Italian Pharmacological Society and of the Italian Association for Cell Cultures. Prof. Monti is co-author of about 70 full papers in Medline-based journals and of about 60 communications at National and International Meetings.

Qualifications and awards

Degree in Biology, magna cum laude (University of Milan, 1980); PhD Degree in Pharmacology, magna cum laude (University of Milan, 1984) Visiting Associate at the Clinical Pharmacology Branch of the National Cancer Institute, NIH, Bethesda, USA (1991)

Research interests

The main research interests focus on the study of the molecular determinants of anticancer drug resistance including multispecific drug transporters, detoxification enzymes, factors involved in the control of cell cycle and apoptosis and factors involved in tumor cell adaptation to hypoxic conditions. The goal of the research in this field is the identification of novel strategies to revert or prevent the development of chemoresistance. Other lines of research include: development (and mechanistic studies) of novel photosensitizing agents for use in photodynamic cancer therapy; in vitro and in vivo screening for anticancer activity of metal-based agents, including novel platinum-polymer conjugates; free radical-mediated mechanisms in cancer cell kill; anthracycline cardiotoxicity.

Teaching experience and appointments

Research Assistant, University of Milan, Faculty of Sciences, Degree in Biology (1992-98)
Associate Professor, University of Insubria, School of Sciences, Degree in Biology (1998-2001), Undergraduate I Degree in Biology of Health (2000 to present), Graduate Degree in Biology Applied to Biomedical Sciences (2002 to present):

Representative publications

Residency program of Pharmacology (1985-2003) and of Oncologic Pharmacy (2003 to present), University of Milan, School of Pharmacy Vice-President, Undergraduate Degree in Biology of Health, Graduate Degree Biology Applied to Biomedical Sciences (2003 to present)

1. Monti E, Gariboldi MB, Maiocchi A, Marengo E, Cassino C, Gabano E, Osella D. Cytotoxicity of Platinum(II) Conjugate Models. The Effect of Chelating Arms and Leaving Groups on Cytotoxicity: a QSAR Approach. *J Med Chem* 48:857-866, 2005.
2. Ravizza R, Gariboldi MB, Passarelli L, Monti E. Role of the p53/p21 system in the response of human colon carcinoma cells to Doxorubicin. *BMC Cancer* 4:92 (online publication), 2004.
3. Ravizza R, Cereda E, Monti E, Gariboldi MB. The piperidine nitroxide Tempol potentiates the cytotoxic effects of temozolomide in human glioblastoma cells. *Int J Oncol*, 25:1817-1822, 2004.
4. Banfi S, Caruso E, Caprioli S, Mazzagatti L, Canti G, Ravizza R, Gariboldi MB, Monti E. Photodynamic effects of porphyrin and chlorin photosensitizers in human colon adenocarcinoma cells. *Bioorg Med Chem*, 12: 4853-4860, 2004.
5. Gariboldi MB, Ravizza R., Petterino C., Castagnaro M., Finocchiaro G., Monti E. The piperidine nitroxide Tempol as a potential new agent for the therapy of gliomas: in vitro and in vivo effects. *Eur J Cancer* 39: 829-837, 2003
6. Gariboldi MB, Ravizza R., Riganti L., Meschini S., Calcabrini A., Marra M., Arancia G., Dolfini E., Monti E. Molecular determinants of intrinsic resistance to doxorubicin in human cancer cell lines. *Int J Oncol* 22: 1057-1064, 2003
7. Gariboldi MB, Ravizza R., Petterino C., Castagnaro M., Finocchiaro G., Monti E. The piperidine nitroxide Tempol as a potential new agent for the therapy of gliomas: in vitro and in vivo effects. *Eur J Cancer* 39: 829-837, 2003
8. Monti E., Supino R, Colleoni M., Costa B., Ravizza R., Gariboldi M.B. Nitroxide TEMPOL impairs mitochondrial function and induces apoptosis in HL60 cells. *J Cell Biochem* 82: 271-276, 2001
9. Gariboldi MB, Ravizza R., Marras E., Perletti G., De Simone A., Piccinini F, Monti E. Resistance of human leukemic cell lines to 1- β -D-arabinofuranosylcytosine: characterization of an experimental model. *Int J Oncol* 18: 12345-1249, 2001
10. Meschini S., Calcabrini A., Monti E., Del Bufalo D., Stringaro A., Dolfini E., Arancia G. Intracellular P-glycoprotein expression is associated with the intrinsic multidrug resistance phenotype in human colon adenocarcinoma cells. *Int J Cancer*, 87: 615-628, 2000
11. Gariboldi M.B., Rimoldi V., Supino R., Favini E., Monti E. The piperidine nitroxide Tempol induces cell death and p21 WAF1/CIP1 expression through oxidative stress in HL60 cells. *Free Rad Biol Med*

29:633-641, 2000

12. Minotti G., Cairo G., Monti E. Role of Iron in anthracycline cardiotoxicity: new tunes for an old song? *FASEB J* 13: 199-212, 1999
13. Gariboldi M.B., Lucchi S., Caserini C., Supino R., Oliva C., Monti E. Antiproliferative effect of the piperidine nitroxide TEMPOL on neoplastic and nonneoplastic mammalian cell lines. *Free Rad Biol Med* 24: 913-923, 1998
14. Dolfini E., Dasdia T., Arancia G., Molinari A., Calcabrini A., Scheper RJ, Flens M.J., Gariboldi M.B., Monti E. Characterization of a clonal human colon adenocarcinoma line intrinsically resistant to doxorubicin. *Br. J. Cancer* 76: 67-76, 1997
15. Monti E, Cova D, Guido E; Morelli R, Oliva C. Protective effect of the nitroxide TEMPOL against the cardiotoxicity of adriamycin. *Free Rad Biol Med* 21: 463-470, 1996
16. Perletti G.P., Monti E. PKCs: transducers of critical signals in cancer cells. (Review) *Int J Oncol* 9: 171-177, 1996
17. Piccinini F, Bradamante S, Monti E, Zhang Y-K, Janzen EG. Pharmacological action of a new spin trapping compound, 2-phenyl-DMPO, in the adriamycin-induced cardiotoxicity. *Free Rad Res* 23: 81-87, 1995
18. Monti E, Mimnaugh EG, Sinha BK. Synergistic antiproliferative action of etoposide and interleukin-1? is not due to DNA damage in human melanoma cells. *Biochim Biophys Acta* 1180: 231-235, 1993
19. Monti E, Mimnaugh EG, Sinha BK. Synergistic antiproliferative effects of interleukin-1? and doxorubicin against a human ovarian carcinoma cell line (NIH:OVCAR-3). *Biochem Pharmacol* 45: 2099-2107, 1993
20. Bradamante S, Monti E, Paracchini L, Piccinini F. Protective activity of the spin trap tert butyl a-phenylnitron (PBN) in reperfused rat heart. *J Mol Cell Cardiol* 24: 375-386, 1992
21. Donella Deana A, Monti E, Pinna LA. Inhibition of tyrosine protein kinases by the antineoplastic agent adriamycin. *Biochem Biophys Res Commun* 160: 1309-1315, 1989
22. radamante S, Monti E, Paracchini L, Perletti G. Hypoxia as a risk factor for doxorubicin induced cardiotoxicity: a NMR evaluation. *Biochem Biophys Res Commun* 163: 682-688, 1989
23. Monti E, Piccinini F, Favalli L, Villani F. Role of the fast exchanging calcium compartment in the early cardiotoxicity of anthracycline analogs. *Biochem Pharmacol* 32: 3303-3306, 1983