

Anna Iannone, M.D., Ph.D.

Department of Biomedical Sciences
University of Modena and Reggio Emilia

Curriculum vitae

Born in Mantova (Italy) February 4th, 1957.

Education and appointments: Associate Professor in General Pathology (MED-04) at the Department of Biomedical Sciences of the University of Modena and Reggio Emilia; professor of Pathophysiology at the Faculty of Medicine(2002-today); Researcher in General Pathology (2000-2002); Specialist in Clinical Pathology (1999); PhD in Hepatology (1995); Visiting Assistant Research Scientist at the University of Arizona (Tucson, AZ) (1993-1994), Visiting Researcher Assistant Professor at the University of Illinois at Urbana-Champaign (1987-1989); Specialist in Gastroenterology (1988); MD at the University of Modena (1984).

Research activity: Most part of the research activity has been conducted by the application of the ESR (Electron Spin Resonance) spectroscopy in the biomedical research area. The research field involve the study of diseases characterized by the presence of oxidative and nitrosative stress, in the search of pathophysiological mechanisms and markers of oxidative stress. The research activity involves the chemical field (radical reactions in chemical systems for studying the mechanism of action of antioxidant and the decomposition of drugs leading to free radical formation), the biological field (studies on the effects of antioxidants and free radicals on biological membranes, cells and animals) and the medical field (studies on redox equilibrium during oxidative and nitrosative stress in ischemia/reperfusion injury, shock and end stage renal disease, both in animals and humans). Another research field involves the identification of proteins modified by oxidative damage in neoplastic diseases (breast and ovarian cancer) to be used as diagnostic and prognostic markers.

Teaching

Lecturer of Pathophysiology in the Specialization Schools of Clinical Biochemistry, Clinical Pathology, Sport Medicine, General Surgery, Pathology, and Microbiology & Virology;

Course of "Pathophysiology" in the School of Medicine;

Course of "General Pathology and Pathophysiology" in the School of "Biomedical Laboratory Techniques":

Course of "General Pathology" in the School of Medicine;

Course of "General Pathology" in the School of Dietistic

Reviewer activity for the following journals:

- Free Radical Research;
- Nitric Oxide Biology and Chemistry;
- Critical Care Medicine;
- Artificial Organs;
- Biochimica Biophysica Acta;
- FEBS Letters;
- Pharmacological Research;
- Journal of Endocrinological Investigation
- Chemical Research Toxicology
- Heart International
- Genes and Nutrition

Publications:

1. Bobyleva-Guarriero, V., Iannone, A., Di Lisa, F., Capone, R., and Siliprandi, N. Effect of acute exercise and L-carnitine administration on rat liver mitochondria. *IRCS Med. Sci.*, 13: 868-869, 1985.

2. Bobyleva-Guarriero, V., Di Lisa, F., Iannone, A., and Siliprandi, N. Ameliorating effect of carnitine on liver mitochondria functions in ammonium intoxicated rats. *IRCS Med. Sci.*, *13*: 399-400, 1985.
3. Tomasi, A., Albano, E., Banni, S., Botti, B., Corongiu, F. P., Dessì, M. A., Iannone, A., Vannini, V., and Dianzani, M. U. Free radical metabolism of carbon tetrachloride in rat liver mitochondria. A study of the mechanism of activation. *Biochem. J.*, *246*: 313-317, 1987.
4. Tomasi, A., Iannone, A., and Vannini, V. Applicazioni biomediche delle sonde nitrossidiche (spin label): approccio allo studio delle membrane. *In*: G. S. C. Vergani (ed.), *Le Biomembrane in Condizioni Normale e Patologiche. Atti del XXI Congresso della Società Italiana per lo Studio del Metabolismo Normale e Patologico.*, pp. 89-96. Modena: Poligrafico Artioli, 1987.
5. Bobyleva-Guarriero, V., Iannone, A., Bellei, M., and Muscatello, U. Effects of single or multiple doses of L-carnitine on liver energetic metabolism of rat forced to run. *J. Sports Med.*, *28*: 298-303, 1988.
6. Albano, E., Tomasi, A., Gorìa-Gatti, L., and Iannone, A. Free radical activation of monomethyl and dimethyl hydrazines in isolated hepatocytes and liver microsomes. *Free Rad. Biol. Med.*, *6*: 3-8, 1989.
7. Bacic, G., Alameda, J. C., Iannone, A., Magin, R. L., and Swartz, H. M. NMR study of water exchange across the hepatocyte membrane. *Magn. Res. Imaging*, *7*: 411-416, 1989.
8. Banni, S., Corongiu, F. P., Dessì, M. A., Iannone, A., Lombardi, B., Tomasi, A., and Vannini, V. Free radicals and lipid peroxidation in liver of rats kept on a diet devoid of choline. *Free Rad. Res. Comms.*, *7*: 233-240, 1989.
9. Federico, M., Iannone, A., Chan, H. C., and Magin, R. L. Bone marrow uptake of liposome-entrapped spin label after liver blockade with empty liposomes. *Magn. Res. Med.*, *10*: 418-425, 1989.
10. Iannone, A., Hu, H., Tomasi, A., Vannini, V., and Swartz, H. M. Metabolism of aqueous soluble nitroxides in hepatocytes: effects of cell integrity, oxygen, and structure of nitroxides. *Biochim. Biophys. Acta*, *991*: 90-96, 1989.
11. Iannone, A., Bini, A., Swartz, H. M., Tomasi, A., and Vannini, V. Metabolism in rat liver microsomes of the nitroxide spin probe Tempol. *Biochem. Pharmacol.*, *38*: 2581-2586, 1989.
12. Iannone, A., Tomasi, A., Vannini, V., and Swartz, H. M. Metabolism of nitroxide spin labels in subcellular fractions of rat liver. II. Reduction in the cytosol. *Biochim. Biophys. Acta*, *1034*: 290-293, 1990.
13. Iannone, A., Tomasi, A., Vannini, V., and Swartz, H. M. Metabolism of nitroxide spin labels in subcellular fractions of rat liver. I. Reduction by microsomes. *Biochim. Biophys. Acta*, *1034*: 285-289, 1990.
14. Iannone, A., Magin, R. L., Walczack, T., Federico, M., Swartz, H. M., Tomasi, A., and Vannini, V. Blood clearance of dextran magnetite particles determined by a non-invasive *in vivo* ESR method. *Magn. Reson. Med.*, *22*: 435-442, 1991.
15. Iannone, A. and Tomasi, A. Nitroxide radicals, their use as metabolic probes in biological model systems: an overview. *Acta Pharm. Jugosl.*, *41*: 277-297, 1991.
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17. Gorìa-Gatti, L., Iannone, A., Tomasi, A., Poli, G., and Albano, E. *In vitro* and *in vivo* evidence for the formation of methyl radical from procarbazine: a spin trapping study. *Carcinogenesis*, *13*: 799-805, 1992.
18. Iannone, A., Federico, M., Tomasi, A., Magin, R. L., Casasco, A., Calligaro, A., and Vannini, V. Detection and quantitation in rat tissues of the superparamagnetic magnetic

- resonance contrast agent dextran magnetite as demonstrated by ESR spectroscopy. *Invest. Radiol.*, 27: 450-455, 1992.
19. Albano, E., Gorla-Gatti, L., Clot, P., Iannone, A., and Tomasi, A. Possible role of free radical intermediates in hepatotoxicity of hydrazines derivatives. *Toxicology and Industrial Health*, 9: 529-538, 1993.
 20. Iannone, A., Marconi, A., Zambruno, G., Giannetti, A., Vannini, V., and Tomasi, A. Free radical production during organic hydroperoxide metabolism by normal human keratinocytes. *J. Invest. Dermatol.*, 101: 50-63, 1993.
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56. Pinti, M., Gibellini, L., Nasi, M., De Biasi, S. Bortolotti C.A., **Iannone A.**, Cossarizza, A. “Emerging role of Lon protease as a master regulator of mitochondrial functions” *Biochim. Biophys. Acta* 1857, 1300-1306, 2016. **IF: 5.353**
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Hammer2, Anja E. Hauser2,76, David L. Haviland77, David Hedley28, Guadalupe Herrera78, Martin Herrmann75, Falk Hiepe27, Tristan Holland67, Pleun Hombrink79, Jessica P. Houston80, Bimba F. Hoyer27, Bo Huang81,82,83, Christopher A. Hunter84, **A. Iannone**, Hans-Martin Jack86, Beatriz Javega87, Stipan Jonjic88,89, Kerstin Juelke2, Steffen Jung74, Toralf Kaiser2, Tomas Kalina90, Baerbel Keller91, Srijit Khan48, Deborah Kienhofer75, Thomas Kroneis92, D'esir'ee Kunkel93, Christian Kurts45, Pia Kvistborg94, Joanne Lannigan95, Olivier Lantz96,97,98, Anis Larbi99,100,101,102, Salome LeibundGut-Landmann103, Michael D. Leibold104, Megan K. Levings105, Virginia Litwin106, Yanling Liu48, Michael Lohoff107, Giovanna Lombardi108, Lilly Lopez109, Amy Lovett-Racke110, Erik Lubberts111, Burkhard Ludewig112, Enrico Lugli113,114, Holden T. Maecker104, Gl'oria Martrus115, Giuseppe Matarese116, Christian Maueröder75, Mairi McGrath2, Iain McInnes71, Henrik E. Mei2, Fritz Melchers117, Susanne Melzer118, Dirk Mielenz119, Kingston Mills8, Jenny Mjösberg120,121, Jonni Moore122, Barry Moran3, Alessandro Moretta123,124, Lorenzo Moretta125, Tim R. Mosmann126, Susann Müller127, Werner Müller128, Christian Münz11, Gabriele Multhoff129,130, Luis Enrique Munoz75, Kenneth M. Murphy131,132, Toshinori Nakayama133, Milena Nasi33, Christine Neudörfl54, John Nolan134, Sussan Nourshargh135, Jos'e-Enrique O'Connor87, Wenjun Ouyang136, Annette Oxenius137, Raghav Palankar138, Isabel Pansel39, P'art Peterson140, Christian Peth18, Jordi Petriz68, Daisy Philips94, Winfried Pickl141, Silvia Piconese6,7, Marcello Pinti34, A. Graham Pockley64,142, Malgorzata Justyna Podolska75, Carlo Pucillo143, Sally A. Quataert126, Timothy R. D. J. Radstake144, Bartek Rajwa145, Jonathan A. Rebhahn126, Diether Recktenwald146, Ester B.M. Remmerswaal147, Katy Rezvani148, Laura G. Rico68, J. Paul Robinson149, Chiara Romagnani2, Anna Rubartelli150, Jürgen Ruland151,152,153, Shimon Sakaguchi154,155, Francisco Sala-de-Oyanguren87, Yvonne Samstag156, Sharon Sanderson157, Birgit Sawitzki158,159, Alexander Scheffold5,2, Matthias Schiemann3, Frank Schildberg160, Esther Schimisky161, Stephan A Schmid162, Steffen Schmitt163, Kilian Schober3, Thomas Schöler164, Axel Ronald Schulz2, Ton Schumacher94, Cristiano Scotta108, T. Vincent Shankey165, Anat Shemer74, Anna-Katharina Simon139, Josef Spidlen16, Alan M. Stall166, Regina Stark79, Christina Stehle2, Merle Stein119, Tobit Steinmetz119, Hannes Stockinger167, Yousuke Takahama168, Attila Tarnok169,170, ZhiGang Tian171,172, Gergely Toldi173, Julia Tornack117, Elisabetta Traggiai174, Joe Trotter166, Henning Ulrich175, Marlous van der Braber94, Ren'e A. W. van Lier79, Marcello Veldhoen176, Salvador Vento-Asturias67, Paulo Vieira177, David Voehringer178, Hans-Dieter Volk179, Konrad von Volkman180, Ari Waisman181, Rachael Walker182, Michael D. Ward183, Klaus Warnatz91, Sarah Warth93, James V. Watson184, Carsten Watzl185, Leonie Wegener18, Annika Wiedemann47, Jürgen Wienands186, Gerald Willimsky187, James Wing154,155, Peter Wurst45, Liping Yu188, Alice Yue189, Qianjun Zhang190, Yi Zhao191, Susanne Ziegler115 and Jakob Zimmermann "Guidelines for the use of flow cytometry and cell sorting" in immunological studies" *Eur. J. Immunol.*, 47, 1584-1797. **IF: 4.227**.

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