



UNIVERSITÀ DEGLI STUDI DI MILANO
FACOLTÀ DI SCIENZE AGRARIE E ALIMENTARI

Curriculum Vitae of Barbiroli Alberto Giuseppe

Photo



Education

- 2004 PhD in Food Biotechnology, University of Milan
- 1999 Master Degree in Food Science and Technology, University of Milan

Professional experiences

- Since 2006 research Professor Bio/10 (Biochemistry), at the Department of Food, Environmental and Nutritional Sciences
- Since 2009/2010 lecturer of "Biochemistry and Biochemical Analyses of Foods" at the Faculty of Agricultural and Food Sciences, University of Milan
- In 2008/2009 and 2009/2010 lecturer of "Process Biochemistry" at the Faculty of Mathematical, Physical and Natural Sciences, University of Insubria

Research fields

- Spectroscopic techniques (circular dichroism and fluorescence), applied to the structural characterization and conformational stability of proteins
- Molecular properties of food proteins and their modifications during processes
- Structural properties of protein/ligand complexes of pharmacological interest
- Folding and stability of proteins containing cofactors
- Biophysical characterization of proteins involved in amyloidosis

Most significant publications

- Caramanico R., Barbiroli A., Marengo M., Fessas D., Bonomi F., Lucisano M., Pagani M.A., Iametti S., Marti A. (2017) Interplay between starch and proteins in waxy wheat. *J. Cereal Sci.* 75, 198-204.



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- Barbiroli A., Marengo M., Fessas D., Ragg E., Renzetti S., Bonomi F., Iametti S. (2017) Stabilization of beta-lactoglobulin by polyols and sugars against temperature-induced denaturation involves diverse and specific structural regions of the protein. *Food Chemistry*, 234, 155-162.
- Boni, F., Milani, M., Barbiroli, A., Diomedea, L., Mastrangelo, E., de Rosa, M. (2018) Gelsolin pathogenic Gly167Arg mutation promotes domain-swap dimerization of the protein. *Human Molecular Genetics*, 27, 53-65. DOI: 10.1093/hmg/ddx383
- D'Incecco P., Ong L., Pellegrino L., Faoro F., Barbiroli A., Gras S. (2018) Effect of temperature on the microstructure of fat globules and the immunoglobulin-mediated interactions between fat and bacteria in natural raw milk creaming. *Journal of Dairy Science*, 101 (4), pp. 2984-2997. DOI: 10.3168/jds.2017-13580
- Le Marchand T., de Rosa M., Salvi N., Sala B.M., Andreas L.B, Barbet-Massin E., Sormani P., Barbiroli A., Porcari R., Sousa Mota C., de Sanctis D., Bolognesi M., Emsley L., Bellotti V., Blackledge M., Camilloni C., Pintacuda G., Ricagno S. (2018) Conformational dynamics in crystals reveal the molecular bases for D76N beta-2 microglobulin aggregation propensity. *Nature Communications*, volume 9, Article number: 1658 (2018), doi:10.1038/s41467-018-04078-y