

Maria Cristina Monti



Present position and profile

Assistant Professor in Medical Statistics (MED01) at the Faculty of Medicine and Surgery, University of Pavia.

Member of the Unit of Biostatistics and Clinical Epidemiology, Department of Public Health, Neuroscience and Experimental and Forensic Medicine of University of Pavia, with research expertise concerning design and analysis of epidemiological and genetic studies. Dr. Monti is currently applying the skills acquired during her training in the biostatistics and statistical genetics field to uncover the epidemiology (occurrence distribution as well as the risk factors) and genetic mechanisms of complex and multifactorial diseases like, Type 1 Diabetes, Long QT Syndrome; Sudden Infant Death Syndrome, Multiple Sclerosis, Alzheimer, Hypertension and Severe Obesity.

Research collaborations. Department of Biostatistics, Columbia University, New York; Battelle Center for Mathematical Medicine and Department of Neurology, Nationwide Children's Hospital, Columbus, Ohio; National Disease Research Interchange (Human Biological Data Interchange, diabetes unit), Philadelphia, USA.

Biostatistics and epidemiology consulting activity with Auxologic Italian Institute; Department of Cardiology, San Matteo Hospital, Pavia; Neurological Institutes "C. Besta", Milan and "C. Mondino", Pavia.

Education. PhD in Public Health (2008), PhD-equivalent degree in Medical Statistics (2003) and MS degree in Biological Sciences, major in Ecology (2000). Fellow of the Advanced Graduate International Program, IUSS - University Institute for Superior Studies (2001-2003) and fellow of Genetic of Complex Diseases program, Columbia University (2004-2007).

Teaching activities. Courses for under-graduate and graduate students on biostatistics and statistical genetics in the Faculty of Medicine, University of Pavia, in the Faculty of Statistics, University of Milano-Bicocca and in the School of Public Health, Columbia University, New York.

Scientific Societies membership. Fellow of the Italian Society for Medical Statistics and Clinical Epidemiology (SISMEC) and the American Society of Human Genetics (ASHG).

Grants. Co-investigator in:

- Italian PRIN project "Morbidity and mortality in infancy: risk factors and incidence", PI: Cristina Montomoli, University of Pavia (2006-2008);
- Pennsylvania State Health Research Formula Fund awards "Genetic Epidemiology of Diabetic Complications: Family/Environmental and Genetic Contribution to Type 1 Diabetes", PI: J. Lonsdale, National Disease Research Interchange, USA (2005-12);

- NIH Grant (National Institute of Health, United States) “Genetic Modifiers of Congenital Long QT Syndrome”, PI: Alfred L. George, Vanderbilt University, USA (2007-2012);
- Sixth European Framework Program, LSHM-CT-2006-037093 “Genetics, functional genomics and molecular mechanisms of hypertension and hypertension-related cardiac and vascular damage”, PI: A. Zanchetti, Auxologic Institute (2006-2012).

Publications

Lipner EM, Tomer Y, Noble JA, Monti MC, Lonsdale JT, Corso B, Greenberg DA. HLA Class I and II Alleles are Associated with Microvascular Complications of Type 1 Diabetes. Accepted for publication on Human Immunology (January 2013).

Padmanabhan S, Melander O, Johnson T, Lee WK, Di Blasio A, Hastie C, Menni C, Monti MC, Corso B[.], Mark Caulfield, Alberto Zanchetti, Anna F Dominiczak. Genome Wide Association Studies using extreme blood pressure distribution identify variants in UMOD associated with hypertension. PLoS Genetics. 2010; 6(10):e1001177.

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Ponzio M, Perotti P, Monti MC, Montomoli C, San Bartolomeo P, Iannello G, Mariani S. Prevalence estimates of alcohol related problems in a area of northern Italy using the capture-recapture method. European Journal of Public Health. 2010; 20:576-81.

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Menconi F, Monti MC, Greenberg DA, Oashi T, Osman R, Davies TF, Ban Y, Jacobson EM, Concepcion ES, Li CW, Tomer Y. Molecular amino acid signatures in the MHC class II peptide-binding pocket predispose to autoimmune thyroiditis in humans and in mice. Proc Natl Acad Sci U S A. 2008;105:14034-9.

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Libetta C, Sepe V, Zucchi M, Pisacco P, Cosmai L, Meloni F, Campana C, Rampino T, Monti MC, Tavazzi L, Dal Canton A. Intermittent hemodiafiltration in refractory congestive heart failure: bnp and balance of inflammatory cytokines. *Nephrology, Dialysis and Transplantation*, 2007; 22:2013-9.

Monti MC, Lonsdale JT, Montomoli C, Schlag E, Greenberg DA. A family study of type 1 diabetes microvascular complications. Evidence of familiarity, differential male-female risk, diabetes family history, and the risk for multiple complications. *J Clin Endocrinol Metab*, 2007; 92:4650-5.

Porrello E, Monti MC, Sinforiani E, Cairati M, Guaita A, Montomoli C, Govoni S, Racchi M. Estrogen Receptor α and APOE ϵ 4 polymorphisms interact to increase risk for sporadic AD in Italian females. *Eur. J. Neurol* 2006; 13:639-644.

Carrà G, Scioli R, Monti MC, Marinoni A. Severity profiles of substance abusing patients in Italian community addiction facilities: influence of psychiatric concurrent disorders. *Eur Addict Res.* 2006;12:96-101.

Bergamaschi R, Montomoli C, Candeloro E, Monti MC, Cioccale R, Bernardinelli L, Fratino P, Cosi V. Bayesian mapping of multiple sclerosis prevalence in the province of Pavia, northern Italy. *J Neurol Sci* 2006; 244:127-31.

Montomoli C, Monti MC, Stramba-Badiale M, Marinoni A, Foglieni N, Carreri V, Amigoni M, Schwartz PJ. Mortality due to Sudden Infant Death Syndrome in Northern Italy, 1990-2000. A baseline for the assessment of prevention campaigns. *Paediatr Perinat Epidemiol* 2004; 18:336-43.

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