

CURRICULUM VITAE ET STUDIORUM

Date of birth: 1 April 1963

Place of birth: Carpi (MO), Italy

Status: Married, two daughters

Education and scientific qualifications

- 1969-1974 Elementary School, Cavezzo (MO)
- 1974-1977 Scuola Media Statale, Cavezzo (MO)
- 1977-1982 High School, Istituto Industriale E. Fermi, Modena
- 1982-1987 Chemistry Faculty, Modena
- 1987 Graduated in Chemistry, Modena University, with a dissertation entitled "*The solvent system Water/1,2-Ethane-diol. A study of the dependency of the dissociation constant of weak electrolytes from the temperature and the solvent composition*". Tutor Prof. Giuseppe Tosi.
- 1987-1988 Master "Research Methodologies" (Department of Chemistry, University of Modena)
- 1987-1994 Permanent position at the "Ispettorato Centrale Repressione Frodi", Italian Ministry of Agriculture
- 1988-1991 Ph.D. Student in Chemistry (University of Parma-Modena-Ferrara), with a thesis: "*Structural characterization and properties of compounds in solid phase and in binary solvent systems*". Tutor Prof. Carlo Preti.
- 1989-1990 Postdoctoral position at Weber Research Institute, Polytechnic University of New York, sponsored by the Army Research Office, research program "Super Capacitor"
- 1992-1993 Postdoctoral fellowship at the University of Modena (Theme: Chemical and Physical characterization of Aceto Balsamico Tradizionale of Modena)
- 1994-2005 Permanent position as Researcher of Analytical Chemistry, Chemistry Department, University of Modena and Reggio Emilia
- 2005- Permanent position as Associate Professor of Analytical Chemistry, Chemistry Department, University of Modena and Reggio Emilia

Prof. Marchetti carries out his didactic activity in the area of the Analytical Chemistry at the Department of Chemical and Geological Sciences, University of Modena and Reggio Emilia. During his career, he has been scientific responsible and tutor of various Ph.D. students and postdoctoral fellows, and he has participated as scientific responsible of operating unit in several public and private research programs.

His main scientific interests have been and are in the following fields:

-) Thermophysics of non-electrolytic solvent systems;
-) Material chemistry. The research interests deal with the improvement of the chemical and physical properties of plastic disposable products and the characterization of new biomaterials for medical and food purposes;
-) Food analytical chemistry: chemical characterization of food matrices for human and animal feed;
-) Geographic traceability of foods: development of new analytical methodologies for the geographic traceability of food matrices based on primary indicators such as the isotopic ratio of radiogenic elements and the metals profile.

The research interests of Prof. Marchetti are based on a "problem solving" approach focusing the attention on real matrices case studies. Therefore, both the topics on the "material" and "food/food process" characterization follow this approach. In particular, Prof. Marchetti has actively worked on polymeric materials for biomedical use: in this context of scientific activities, extremely important was

the active collaboration, still active, with some leading companies of the biomedical district of the town of Mirandola (MO). From 1997 to 2008 he has been scientific director of an applied research project, funded by Gambro Dasco SpA, on issues regarding the properties of the plastic polymers used for the production of materials disposables. From 1999 the Consortium INSTM of Florence was actively involved between the parties involved in the research project.

In the academic field, Prof. Marchetti has participated as scientific responsible of research unit in the COFIN2002 project “*development of simulation models based on instrumental sensory analysis for the characterization of typical foods*”.

Furthermore, within the above-cited research fields and with particular detail to the agro-food area, Prof. Marchetti has been scientific coordinator of several research projects on the "authenticity of food products" funded by the Emilia Romagna Region (projects **Agrifarm 2003**: Authenticity of typical regional products and **CABM 2004**: Authenticity of condensed musts. As part of his research activities, involving public and private institutions of the territory since 2007, Prof. Marchetti, is chief scientist of a special project, sponsored by the Province of Modena, Department of Agriculture, Food and Fisheries whose aims are: i) the chemical-physical characterization of the condensed cooked musts used in the Aceto Balsamico Tradizionale di Modena food chain; and ii) the study of the effects induced by the heating process on grape juices for the production of condensed cooked musts.

Owing the increasing interests in the geographical traceability of food issues and the developing of new and innovative analytical approaches for the food authentication he has also been the promoter of the research project for the acquisition of the multicollector high resolution mass spectrometer ICP now available at the research laboratories of the Centro Interdipartimentale Grandi Strumenti, CIGS, of the University of Modena and Reggio Emilia.

Since 2011 Prof. Marchetti is the national coordinator of a multidisciplinary research team whose aims deal with the implementation of geographical traceability systems within the specific food chain of enology (Lambrusco PDO wines and TrentoDOC) based on the use of primary indicator such as isotopic ratio of stable and radiogenic elements and genetic markers. The project' title is “*New analytical methodologies for geographical and varietal traceability of oenological products*”. The research activities are founded on the “Agroalimentare e Ricerca”, AGER, platform: a cooperative project between grant-making foundations aimed at boosting scientific research in agro-food. In the same research context Prof. Marchetti is scientific responsible of a two years project founded by the Regione Emilia Romagna (2010-2012) on the Traceability of vinegars with labeled production.

At the same time, he is the coordinator of operational units in a PRIN2009 project, having as its object the development of an analytical method for the determination mercury isotopic ratio for the environmental monitoring of the SIN of the Grado Marano lagoon.

As an analytical chemist, Prof. Marchetti is Author and Co-author of more than 125 scientific publications on international journals and more than 140 communications to national and international conferences.

Referee of scientific manuscripts for the following journals: *Analytica Chimica Acta*, *J. International AOAC*, *Talanta*, *J. Agriculture Food Chemistry*, *J. Applied Polymer Science*, *J. Food Engineering*, *Food Chemistry*.