

Jean Daniel Coisson

PERSONAL DATA

Born in Pinerolo (Italy), 11 Sept. 1968

Resident in Torino

BIO AND EDUCATION

1993 Master degree in Pharmaceutical Chemistry and Technology (Faculty of Pharmacy, Università degli Studi di Torino, Italia).

1994-1996: Fellow grant at Mycological Research Center, CNR- Università degli Studi di Torino, Italy (research topic: Purification and characterization of polygalacturonases from ericoid mycorrhizal fungi)

1996 Master degree in Pharmacy (Faculty of Pharmacy, Università degli Studi di Torino, Italia).

UNIVERSITY CAREER

2015-	Associate Professor, Università del Piemonte Orientale
2001-2015	Assistant Professor, Università del Piemonte Orientale
1999-2001	Temporary Researcher (assegnista), Università del Piemonte Orientale
1996-1997	Technician, Università di Torino (sede di Novara)

UNIVERSITY POSITIONS

2012-	Member of the Senate, Università del Piemonte Orientale
2015-	Member of Presidio di Qualità di Ateneo, Università del Piemonte Orientale
2008-2012	Member of Consiglio di Amministrazione, Università del Piemonte Orientale
2015-	Delegate of Dipartimento di Scienze del Farmaco for Quality of education
2013-2015	Component of Quality assurance group of Pharmaceutical Chemistry and Technology course
2002-2011	Member of Giunta della Facoltà di Farmacia, Università del Piemonte Orientale
2001-2008	Erasmus Delegate of Facoltà di Farmacia and Member of International Relations Commission (Università del Piemonte Orientale)

SCIENTIFIC POSITIONS

2016	Member of the Scientific Committee of XI National Congress of Food Chemistry (Cagliari)
2014	Member of the Organizing Committee of X National Congress of Food

	Chemistry (Firenze)
2013	Member of the Organizing Committee of 7th International Congress on Pigments in Food – PIF 2013 (Novara)
2011	Member of the Organizing Committee of 1st International Congress on Cocoa, Coffee and Tea - CoCoTea-2011 (Novara)
2006	Member of the Organizing Committee of VI National Congress of Food Chemistry (Alba - CN)

MAIN FIELDS OF INTEREST

1. Development of novel techniques and novel analytical methods for food analysis (Chromatographic methods: HPLC and GC)
2. Development of biotechnological methods for detection of hidden ingredients in foods and for food authentication
3. Study on products and by-products of dairy industry
4. Valorization of agro-food industry by-products (cereals and bakery industry) in order to recover bioactive and functional compounds (polyphenols, prebiotics, etc)
5. Application of Data mining, on chemotype and genotype data, for authenticity assessment of high-quality foods

CURRENT ISSUES OF RESEARCH

1. Determination of Alkylresorcinols in wheat and barley (whole grains and pearled fractions)

The aim of this work was to investigate the content of alkylresorcinols (ARs) in different wheat and barley cultivars, and in fractions obtained by progressive pearling. Three commercial winter wheats, characterized by different hardness and three barleys, including hulled and hull-less types, were selected. Based on the different localization of ARs in the cereal kernel, progressive pearling is useful to obtain enriched fractions suitable enhance the concentration of these compounds

2. Bioactive compound content in special pigmented wheat varieties: the effect of pearling

Pigmented wheat varieties are interesting source of functional ingredients, characterized by an high content in bioactive compounds. In this study we evaluated the nutritional value and the presence of bioactive compounds in edible blue (cv. Skorpion), purple (cv. Rosso), yellow (cv. Bona Vita) and white (cv. Whitebear) wheat grains compared with a control red ordinary variety (cv. P22R58), after application of an incremental pearling to obtain six different kernel fractions.

3. Factors influencing the formation of histaminol in wine

An HPLC–PDA–MS/MS method was validated for histaminol determination in wine. The method was applied in the study of influence of some factors (T°, alcohol, amino acids, yeast strain, malolactic fermentation) on its formation during winemaking. The results confirmed the histidine conversion by Ehrlich pathway and the importance of amino acids addition.

4. Sensitive and specific detection of pine nut (*Pinus* spp.) by real-time PCR in complex food products

A Taqman-based real time PCR method for the detection of *Pinus* spp. was set up. The method displayed a very high efficiency and specificity for the genus *Pinus*. The intrinsic LOD was 1 pg of DNA, while the practical LOD evaluated on model foods was 0.1 ppm of pine nuts powder, the lowest ever registered for the detection of food allergens via real-time PCR. The method was applied to confirm the declared presence/absence of pine nut in commercial foods.

5. Exploiting Data mining for food authenticity assessment and protection of high-quality Italian wines from Piedmont

A data mining approach was followed in the project TRAQUASwine, aimed at the definition of methods for data analytical assessment of the authenticity and protection, against fake versions, of some of the highest value Nebbiolo-based wines from Piedmont. The objective is twofold: to show that the problem can be addressed without expensive and hyper-specialized wine analyses, and to demonstrate the actual usefulness of classification algorithms for data mining on the resulting chemical profiles.

CURRENT FUNDED PROJECTS

PROGRAMME	FUNDED PROJECT
Ricerca Sanitaria Finalizzata 2010	INTEGRALL – <u>“Developing innovative methods for detecting emerging food allergens and evaluation of their impact on consumer health: an integrated approach”</u>

TOP FIVE PAPERS

1. Angioni A., Barra A., Cereti E., Barile D., Coisson J.D., Arlorio M., Dessi S., Coroneo V., Cabras P. (2004) Chemical composition, plant genetic differences, antimicrobial and antifungal activity investigation of the essential oil of *Rosmarinus officinalis* L. Journal of Agricultural and Food Chemistry 52(11): 3530-3535
2. Coisson J.D., Cerutti C., Travaglia F., Arlorio M. (2004) Production of biogenic amines in Salamini italiani alla cacciatora PDO. Meat Science 67(2): 343-349
3. Coisson J.D., Travaglia F., Piana G., Capasso M., Arlorio M. (2005) *Euterpe oleracea* juice as functional pigment for yogurt. Food Research International 38: 893-897

4. Locatelli M., Gindro R., Travaglia F., Coisson J.D., Rinaldi M., Arlorio M. (2009) Study of the DPPH^o-scavenging activity: development of a free software for the correct interpretation of data. Food Chemistry 114: 889-897
5. Barile D., Tao N., Lebrilla C.B., Coisson J.D., Arlorio M., German J.B. (2009) Permeate from cheese whey ultrafiltration is a source of milk oligosaccharides. International Dairy Journal 19: 524-530

AWARDS

1. Poster Award at 5th International Dietary Fibre Conference 2012, 7-9 may 2012, Rome, Italy
2. Poster Award at 4th International Congress on Pigments in Food, Stuttgart-Hohenheim (GER), 9-12 oct. 2006
3. Poster Award "Santorio Santorio" (2000) for young researchers at XIV Congress of Società Italiana di Scienza dell'Alimentazione, Rome, 12-13 ottobre 2000

FURTHER INFORMATION

Referee for international journals: Food Chemistry, Journal of Agricultural and Food Chemistry, Journal of Chromatography, Food Research International, Journal of Food Science, Food Additives and Contaminants, European Food Research International; etc.

Project evaluator for PRIN, SIR and Futuro in Ricerca granted by MIUR, Joint Projects 2014 and 2015 granted by University of Verona and "Fondi di Ateneo per la Ricerca 2014" University of Modena