PERSONAL INFORMATION

Gabriella Roda

POSITION

Since 2/12/2002 she has been research scientist at the faculty of Pharmacy and in 2005 she was confirmed in this role.

STUDIES APPLIED FOR PERSONAL STATEMENT

1995 Graduated in Chemistry at the University of Milan in 1995 (score:110/110)
1999 She discussed her Ph.D. thesis titled “C-C bonds formation catalyzed by enzymes” at the University of Milan

WORK EXPERIENCE

1995-1999 Research activity during the Ph.D. thesis in the field of biocatalysis and organic chemistry.

2000-2002 Synthesis and pharmacological evaluation of glutamate receptor ligands

2002-2017 Research activity at the Department of Pharmaceutical Sciences in the field of chemical and toxicological analysis.

2017 Responsible of the Laboratory of Chemical and Toxicological Analysis

EDUCATION AND TRAINING

1995-1999 Ph.D. research activity in the Department of Organic Chemistry and at the Insitute of Chemistry and molecular Recognition CNR

1995 Abilitation for the profession of chemist

1995 Graduated in Chemistry at the University of Milan in 1995 (score:110/110)

1989 Diploma at the “Liceo Scientifico B. Pascal” in Milan in 1989 (score: 60/60)

PERSONAL SKILLS

Mother tongue: Italian

Other language

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B1	B1	B1	B1

Communication skills I have good communication skills thanks to the teaching and research activity and thanks to the fact that I am the tutor of several students during their thesis.

Organisational / managerial skills Nowadays I am the responsible of the Laboratory of Chemical and Toxicological Analysis. The laboratory has implemented and maintains a quality management system which complies with the UNI EN ISO 9001:2008 standard.

Job-related skills The scientific activity of Gabriella Roda is divided into two main research topics. During her Ph.D. thesis she was involved in the study of biocatalyzed reactions for the stereoselective synthesis of

chiral scaffolds useful for the preparation of biologically active compounds. This kind of activity allowed her to gain experience in bio-transformations as well as in the preparation and characterization of the biocatalysts. For the evaluation of the stereochemical outcome of the enzymatic reactions it was necessary to apply chiral analytical methods (HPLC and GC). This kind of experience was useful in the experimental activity which Gabriella Roda is carrying out at the faculty of Pharmacy where she is involved in the development of chemo-enzymatic strategies for the preparation of enantiomerically pure amino acids structurally related to glutamate, an excitatory neurotransmitter involved in several acute and chronic neurodegenerative disorders.
At the moment Gabriella Roda is involved in chemical and toxicological analysis. In particular she carries out research in the field of the analysis of drugs of abuse with particular attention to the new phychoactive substances, that is synthetic cathinones and cannabinoids. She also carries out research activity in the field of post-mortem toxicology, determining the most common substances of abuse on post-mortem samples such as blood, urine, bile, brain, liver, hair.

Our research group focuses the attention mainly on the development and evaluation of new analytical methods to be applied to the toxicological analysis of both biological and non-biological specimens.
Furthermore, our work is based on the development of quantitative methods for the determination of drugs in medicines and in biological fluids and the main analytical techniques used are represented by:
• Thin Layer Chromatography (TLC);
• Gas chromatography coupled with different detectors (FID, NPD, ECD);
• Head-space gas chromatography (HS-GC/MS) coupled with different detectors (FID and quadruple detector MS);
• Gas Chromatography and mass spectrometer (GC/MS quadruple detector);
• GC/MS-MS with ion trap detector;
• Liquid Chromatography coupled with different detectors (UV/Vis, DAD);
• LC/MS and LC/MS-MS coupled with a triple quadruple detector.

The laboratory has implemented and maintains a quality management system which complies with the UNI EN ISO 9001:2008 standard.

The most important research projects of our team can be resumed as follows:

1) Analytical Toxicology applied to non-biological samples
Forensics application of analytical toxicology for the detection of illicit drugs found in “street drugs”.

2) Analytical Toxicology applied to biological samples:
-development of analytical methods for the identification and quantization of toxic substances to be applied to cadaveric samples for forensic analysis;
-detection of illicit drugs in hairs;
-detection of illicit and therapeutic drugs in biological fluids;
-determination of any case of metabolic alterations throughout the analysis of endogenous substances in biological fluids.

3) Drug analysis
Our work is also based on the development of quality control methods for drugs and medicines, in order to evaluate degradation products and impurities.

4) VOC analysis
Volatile organic compounds in non-biological and biological samples are determined by using HS-GC/FID and HS-GC/MS techniques. Thus, for the determination of residual solvents in drugs and medicines and for alcohol detection in blood samples.
5) Cannabinoid analysis
The laboratory carries out routinely cannabinoid analysis in galenic preparations and cannabis light products

Digital skills

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Independent user	Independent user

Other skills: Very good predisposition to human contacts thanks to experience in voluntary activities

Driving licence: Driving License: B

ADDITIONAL INFORMATION

1. A Novel Approach by SPME-GC/MS for the Determination of gammahydroxybutyric acid (GHB) in Urine Samples after Conversion into gamma-butyrolactone (GBL)
Arnoldi Sebastiano, Roda Gabriella, Argo Antonella, Casagni Eleonora, Farè Fiorenza, Visconti Giacomo Luca, Dei Cas Michele and Gambaro Veniero
Journal of Forensic and Crime Investigation (2018), 2(1), 1-8.

2. 1H NMR spectroscopy in the presence of Mosher acid to rapidly determine the enantiomeric composition of amino acid benzyl esters, chirons susceptible to easy racemization
Bolchi, Cristiano; Roda, Gabriella; Pallavicini, Marco
Amino Acids (2018), Ahead of Print.

3. Daptomycin excretion into human milk
Cesari Elena; Roda Gabriella; Visconti Giacomo L; Dei Cas Michele; Gambaro Veniero; Ramondino Stefano; Monina Giovanna
From British journal of clinical pharmacology (2018), 84(2), 394-395

4. Determination of Cyanide by Microdiffusion Technique Coupled to Spectrophotometry and GC/NPD and Propofol by Fast GC/MS-TOF in a Case of Poisoning
Roda Gabriella; Arnoldi Sebastiano; Dei Cas Michele; Casagni Eleonora; Tregambe Fausto; Visconti Giacomo Luca; Fare Fiorenza; Gambaro Veniero; Ottaviano Valeria; Froldi Rino
Journal of analytical toxicology (2018), 42(6), e51-e57.

5. Determination of Methyldibromoglutaronitrile (MDBGN) in Skin Care Products by Gaschromatography-Mass Spectrometry Employing an Enhanced Matrix Removal (EMR) Lipid Clean-Up
Fare, Fiorenza; Dei Cas, Michele; Arnoldi, Sebastiano; Casagni, Eleonora; Visconti, Giacomo Luca; Parnisari, Giulia; Bolchi, Cristiano; Pallavicini, Marco; Gambaro, Veniero; Roda, Gabriella
European Journal of Lipid Science and Technology (2018), 120(4), n/a.

6. Extraction Method and Analysis of Cannabinoids in Cannabis Olive Oil Preparations
By Casiraghi, Antonella; Roda, Gabriella; Casagni, Eleonora; Cristina, Cecilia; Musazzi, Umberto Maria; Franze, Silvia; Rocco, Paolo; Giuliani, Claudia; Fico, Gelsomina; Minghetti, Paola; et al
Planta Medica (2018), 84(4), 242-249.

7. Phytosterol and γ-Oryzanol Conjugates: Synthesis and Evaluation of their Antioxidant, Antiproliferative, and Anticholesterol Activities
Lesma, Giordano; Luraghi, Andrea; Bavaro, Teodora; Bortolozzi, Roberta; Rainoldi, Giulia; Roda, Gabriella; Viola, Giampietro; Ubiali, Daniela; Silvani, Alessandra
From Journal of Natural Products (2018), 81(10), 2212-2221.

8. Simple route to synthesize (E)-3-propyl-4-oxo-2-butenoic acid esters through the Z isomer
Bolchi, Cristiano; Roda, Gabriella; Pallavicini, Marco
Synthetic Communications (2018), 48(1), 85-90.

9. A possible biomarker for methadone related deaths
Argo Antonina; Spatola Gianfranco Francesco; Uzzo Maria Laura; Pitruzzella Alessandro; Zerbo Stefania; Sortino Cettina; Lanzarone Antonietta; Procaccianti Paolo; Fare Fiorenza; Roda Gabriella; et al
From Journal of forensic and legal medicine (2017), 49, 8-14.

10. Biocatalysed olefin reduction of 3-alkylidene oxindoles by baker's yeast
Rossetti, Arianna; Sacchetti, Alessandro; Bonfanti, Marta; Roda, Gabriella; Rainoldi, Giulia; Silvani, Alessandra
Tetrahedron (2017), 73(31), 4584-4590.

11. Characterization of the volatile components of Cannabis preparations by solid-phase microextraction coupled to headspace-gas chromatography with mass detector (SPME-HSGC/MS)
Arnoldi, Sebastiano; Roda, Gabriella; Casagni, Eleonora; Dell'Acqua, Lucia; Dei Cas, Michele; Fare, Fiorenza; Rusconi, Chiara; Luca Visconti, Giacomo; Gambaro, Veniero
Journal of Chromatography and Separation Techniques (2017), 8(1), 1000350/1-1000350/6.

12. Determination of propofol by GC/MS and fast GC/MS-TOF in two cases of poisoning
Procaccianti, Paolo; Fare, Fiorenza; Argo, Antonella; Casagni, Eleonora; Arnoldi, Sebastiano; Facheris, Sara; Visconti, Giacomo Luca; Roda, Gabriella; Gambaro, Veniero
From Journal of Analytical Toxicology (2017), 41(9), 771-776.

13. Rapid access to reverse-turn peptidomimetics by a three-component Ugi reaction of 3,4-dihydroisoquinoline
Rossetti, Arianna; Sacchetti, Alessandro; Gatti, Marta; Pugliese, Andrea; Roda, Gabriella
Chemistry of Heterocyclic Compounds (New York, NY, United States) (2017), 53(11), 1214-1219.

14. Behavioural and pharmacological characterization of a novel cannabinomimetic adamantane-derived indole, APICA, and considerations on the possible misuse as a psychotropic spice abuse, in C57bl/6J mice
Cannizzaro, Carla; Malta, Ginevra; Argo, Antonina; Brancato, Anna; Roda, Gabriella; Casagni, Eleonora; Fumagalli, Laura; Valoti, Ermanno; Froldi, Rino; Procaccianti, Paolo; et al
Forensic Science International (2016), 265, 6-12.

15. Determination of 1-phenyl-2-propanone (P2P) by HS-GC/MS in a material sold as "wet amphetamine"
Arnoldi, Sebastiano; Roda, Gabriella; Coceanig, Alessandro; Casagni, Eleonora; Dell'Acqua, Lucia; Fare, Fiorenza; Rusconi, Chiara; Tamborini, Lucia; Visconti, Giacomo Luca; Gambaro, Veniero
Forensic Toxicology (2016), 34(2), 411-418.

16. DNA-based taxonomic identification of basidiospores in hallucinogenic mushrooms cultivated in "grow-kits" seized by the police: LC-UV quali-quantitative determination of psilocybin and psilocin
Gambaro, Veniero; Roda, Gabriella; Visconti, Giacomo Luca; Arnoldi, Sebastiano; Casagni, Eleonora; Dell'Acqua, Lucia; Fare, Fiorenza; Paladino, Eleonora; Rusconi, Chiara; Arioli, Stefania; et al
Journal of Pharmaceutical and Biomedical Analysis (2016), 125, 427-432.

17. Identification and characterization of a new designer drug thiothinone in seized products
Gambaro, Veniero; Casagni, Eleonora; Dell'Acqua, Lucia; Roda, Gabriella; Tamborini, Lucia; Visconti, Giacomo Luca; Demartin, Francesco
From Forensic Toxicology (2016), 34(1), 174-178.

18. Determination by UPLC/MS-MS of Coenzyme Q10 (CoQ10) in plasma of healthy volunteers before and after oral intake of food supplements containing CoQ10
Visconti, Giacomo Luca; Mazzoleni, Lara; Rusconi, Chiara; Grazioli, Vittorio; Roda, Gabriella; Manini, Giorgio; Gambaro, Veniero
Journal of Analytical & Bioanalytical Techniques (2015), 6(Spec.Issue13), 11/1-11/5.

19. Determination of 6-monoacetyl-morphine (6-MAM) in brain samples from heroin fatalities
Roda, Gabriella; Fare, Fiorenza; Dell'Acqua, Lucia; Arnoldi, Sebastiano; Gambaro, Veniero; Argo, Antonella; Visconti, Giacomo Luca; Casagni, Eleonora; Procaccianti, Paolo; Cippitelli, Marta; et al
Pharmaceutica Analytica Acta (2015), 6(12), 1000451/1-1000451/5.

20. Determination of acid dissociation constants of poorly water-soluble nicotinic ligands by means of electrophoretic and potentiometric techniques
Roda, Gabriella; Dallanoce, Clelia; Gambaro, Veniero; Grazioso, Giovanni; Liberti, Vincenzo; Matera, Carlo; Quadri, Marta; De Amici, Marco
From Pharmaceutica Analytica Acta (2015), 6(7), 1-5.

21. Fatty acid composition and fat content in milk from cows grazing in the Alpine region
Roda, Gabriella; Fiala, Stefano; Vittorini, Michela; Secundo, Francesco
European Food Research and Technology (2015), 241(3), 413-418.

22. Taxonomic Identification of Hallucinogenic Mushrooms Seized on the Illegal Market using a DNA-based approach and LC/MS-MS determination of psilocybin and psilocin
Gambaro, Veniero; Roda, Gabriella; Visconti, Giacomo Luca; Arnoldi, Sebastiano; Casagni, Eleonora; Ceravolo, Caterina; Dell'Acqua, Lucia; Fare, Fiorenza; Rusconi, Chiara; Tamborini, Lucia; et al
Journal of Analytical & Bioanalytical Techniques (2015), 6(6), 1000277/1-1000277/6.

23. Quali-quantitative analysis by LC/DAD and GPC of the polyphenols of "Uva Di Troia Canosina" grape
Bava, Martina; Arnoldi, Sebastiano; Dell'Acqua, Lucia; Fontana, Sergio; La Forgia, Flavia; Mustich, Giuseppe; Roda, Gabriella; Rusconi, Chiara; Sorrenti, Giovanni; Visconti, Giacomo Luca; et al
Journal of Chromatography and Separation Techniques (2015), 6(3), 1-9.

24. Study of the ratio between morphine-3-ß-D-glucuronide and morphine-6-ß-D-glucuronide in blood samples from heroin fatalities
Froldi, Rino; Guerrini, Katia; Argo, Antonella; Cippitelli, Marta; Dell'Acqua, Lucia; Fare, Fiorenza; Procaccianti, Paolo; Roda, Gabriella; Rusconi, Chiara; Visconti, Giacomo Luca; et al
Journal of Analytical & Bioanalytical Techniques (2015), 6(2), 240/1-240/7.

25. Characterization of in vitro metabolites of JWH-018, JWH-073 and their 4-methyl derivatives, markers of the abuse of these synthetic cannabinoids
Gambaro, Veniero; Arnoldi, Sebastiano; Bellucci, Stefania; Casagni, Eleonora; Dell'Acqua, Lucia; Fumagalli, Laura; Pallavicini, Marco; Roda, Gabriella; Rusconi, Chiara; Valoti, Ermanno
Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences (2014), 957, 68-76.

26. Unexpected Variation of the Codeine/Morphine Ratio Following Fatal Heroin Overdose
Gambaro, Veniero; Argo, Antonella; Cippitelli, Marta; Dell'Acqua, Lucia; Fare, Fiorenza; Froldi, Rino; Guerrini, Katia; Roda, Gabriella; Rusconi, Chiara; Procaccianti, Paolo
From Journal of Analytical Toxicology (2014), 38(5), 289-294.

27. Unusual detection of lathosterol in amniotic fluids investigated for the determination of cholesterol and 7-dehydrocholesterol for suspected Smith-Lemli-Opitz syndrome
Gambaro, Veniero; Fare, Fiorenza; Barlocco, Andrea; Maggi, Federico; Simoni, Giuseppe; Dell'Acqua, Lucia; Rusconi, Chiara; Roda, Gabriella
American Journal of Analytical Chemistry (2014), 5(4), 249-257, 9 pp

28. Cannabinoid-free Cannabis sativa L. grown in the Po valley : evaluation of fatty acid profile, antioxidant capacity and metabolic content.
G. Lesma, R. Consonni, V. Gambaro, C. Remuzzi, G. Roda, A. Silvani, V. Vece, G.L. Visconti
Natural Products Research (2014), 28 (21), 1801-1807

29. Capillary electrophoretic and extraction conditions for the analysis of Catha edulis FORKS active principles
Roda, Gabriella; Liberti, Vincenzo; Arnoldi, Sebastiano; Argo, Antonella; Rusconi, Chiara; Suardi, Sonia; Gambaro, Veniero
Forensic Science International (2013), 228(1-3), 154-159.

30. Development and validation of a reliable method for studying the distribution pattern for opiates metabolites in brain
Guerrini, Katia; Argo, Antonella; Borroni, Cristina; Catalano, Daria; Dell'Acqua, Lucia; Fare, Fiorenza; Procaccianti, Paolo; Roda, Gabriella; Gambaro, Veniero
Journal of Pharmaceutical and Biomedical Analysis (2013), 73, 125-130.

31. Improved GC method for the determination of the active principles of Catha edulis
Dell'Acqua, Lucia; Roda, Gabriella; Arnoldi, Sebastiano; Rusconi, Chiara; Turati, Lorenzo; Gambaro, Veniero
Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences (2013), 929, 142-148.

32. Methods for the evaluation of polyphenolic content in "uva di Troia canosina" grape and seeds at the different maceration stages
Catalano, Daria; Fontana, Sergio; Roda, Gabriella; Dell'Acqua, Lucia; La Forgia, Flavia; Mustich, Giuseppe; Sorrenti, Giovanni; Suriano, Serafino; Visconti, Giacomo Luca; Gambaro, Veniero
ISRN Analytical Chemistry (2013), 548296, 10 pp..

Personal information

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information.

I authorize, according to D.lgs 14/03/2013 n. 33 concerning transparency, in case of conferment of the position and of the fellowship, the publication of this curriculum in the web site of Università degli Studi di Milano in the section "Amministrazione trasparente", "Consulenti e collaboratori".

Date 05/11/2018

Signature Gabriella Roda