



Curriculum vitae



Name **Carmen SOCACIU**

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e

Web sites: <http://www.usamvcluj.ro/cercetare/2007/AGRIAL/>

Nationality Romanian

Marital status married

Date of birth 8th of October 1953

Gender Female

Teaching degree/ Scientific title Full Professor, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca Head, Department of Chemistry and Biochemistry, Faculty of Food Science and Technology, PhD.supervisor in Biotechnology

Associated member of Romanian Academy for Agricultural Sciences and Forestry-ASAS, Commission of Food Science and Technology (www.asas.ro)

Domains of competence Plant and agrifood and biomedical metabolomics; Agri-food biochemistry: Functions and actions of plant pigments (carotenoids, flavonoids) at cellular and molecular level; Analytical biochemistry: analysis of phytochemicals (UV-Vis, IR and MS spectrometry, LC_MS) ; Cellular biochemistry: *In vitro* evaluation of cell metabolism, cytotoxicity and mutagenicity ; Food biotechnology: enzymatic and non-enzymatic preparation of natural food additives from plant secondary metabolites,

Didactical activity Physical and Colloid Chemistry, Food Science and Technology, Food Control and Expertise and Biotechnology in Food Industry , Food Chemistry, Biochemistry Enzymology applied in food industry, Introduction in food quality management, Master EN „Food Quality Management” Food safety and chemical risk factors, International didactic activity/ Erasmus teaching staff mobility (TSM): Lectures-master & PhD - at University of Bordeaux (2001-2002), Bremen (2001-2009) PhD EU school (15-22 August 2005, INA Paris, 13.02-3 03. 2007, Cluj-Napoca). Teaching under Erasmus TSM): University of Gent, Wageningen, Valencia, Burgos, Murcia, Bremerhaven, Bremen

Education and training PhD DIPLOMA (Chemistry), 1986, University „Babes-Bolyai” Cluj-Napoca
Master Diploma 1977, Faculty of Chemistry, University „Babes-Bolyai” Cluj-Napoca
DIPLOMA - LICENCE IN CHEMISTRY, 1976, Faculty of Chemistry, University „Babes-Bolyai” Cluj-Napoca

Post-doc Grants: University din Bordeaux, France, 10 months (1991/1992) and University of Bremen (DAAD post-doc 1997, 2000)

Specializations: Nutrition and metabolism diseases (1984), ICPV Pasteur, Bucuresti; Mutagenesis and carcinogenesis (1988) , Institute Pasteur, Paris

Research abroad (Postdoctoral fellow)

University of Bern, Switzerland (2 months -1991, 3 months-1994, 3 months-1998),



- Work experience** Since 1998 – full professor, USAMV Cluj-Napoca
1991 – 1998: associated professor and lecturer, USAMV Cluj-Napoca
1985-1990: researcher, Dept.Genetics, USAMV Cluj-Napoca
1982-1985: researcher, Inst.Pasteur, Bucuresti, filiala Cluj
1977-1982: chemist, Laboratory of Chemistry & Toxicology, Veterinary Service Cluj
- Professional affiliations** Member și Vicepresident of Romanian Society of Biochemistry and Molecular Biology (SRBBM) (since 2000)
Member of EUCHEMS – responsible for Romania of Food Chemistry Division (FCD)
Member of Society European EUROFEDLIPIDS, since 2003
Member of Scientific Committee of International Carotenoid Society (2008-2014)
Member of Editorial Committee (& referee) “Metal-based Drugs”, Bruxelles (1996)
Member of International Society of Magnetic Resonance in Medicine (since 1996)
Member of International Society ISFAE (Soc. Int. Food, Agriculture and Environment) (2008-2013)
- Coordinated research contracts** **International Projects- responsible of Romanian partner**
Research grants NATO - CLG (1999-2005)
Bilateral Research Program Flanders - Romania (2000-2002)
FP 5 – CRAFT,, Innovative products obtained from fruits of Seabuckthorn ” (2000-2003)
FP6 QLIF “Quality of low input food -Development of a framework for the design of “minimum” and “low input” processing strategies which guarantee food quality and safety”, coordinator: IFOAM EU UK/ FibL (2002-2003)
FP6 EU project QUALIJUICE “Quality assessment and development of an early warning system for microbial contaminations for the European Juice industry” coordinated by TTZ Bremerhaven (2003-2005),
FP6 EU project GRUP’S UP “Recycling and Upgrading Wastes from Food Production for use within the Food Chain” (2005-2009) FP6 EU HELICAS Innovative utilization strategies for sunflower biomass”(2004-2007)
FP- INPLISTA „Information Platform on International Standards for SMEs in the Food Sector” FP6-518696
FP6- EU- Thematic Network 104934-CP-3- 2004- 1- PT ERASMUS –TN "ISEKI – Food Integrating Safety and Environ.Knowledge in Food Studies towards EU Sustainable Development” (2005-2012)
EU- COST Action nr. 865 BRG“ Bioencapsulation multiscale interaction analysis ” (2007-2011)
EU- COST Action nr. FA1006 « Plant metabolic engineering for high value products »
EU-FP7- METAPRO 244348 The development of tools and efficient strategies for the optimization of useful secondary metabolites in planta (2010-2013)
EU-KBBE.2013.3.1.-01 DISCO-From discovery to products: A next generation pipeline for the sustainable generation of high-value plant products (2013-2016)
ERANET Projects (2015-2018): PROCAR and SCREAM (ERANET_LAC)
National Projects coordinated as director
Romanian Academy Grants (2001-2004): Effects of lipophilic plant antioxidants on cell membrane properties: fluorescence and magnetic resonance studies
Grants ANSTI “Lyposomal systems doped with carotenoid pigments” (2000-2002)



- Coordinated research contracts**
- PN BIOTECH:** Functional food and nutraceuticals from soy proteins (2003-2005),
PN- VIASAN: Evaluation of food toxicity, determined from the mycotoxin contamination (2003-2006); The hypocholesterol effect of nutraceuticals enriched in phytosterols obtained from plants ALFIT (2003-2006)
Grants CNCISIS : Advanced methods for the detection and analysis of biochemical markers for quality and origin authenticity of functional foods (director) (2004-2006)
Plant metabolomics and functional food authenticity: advanced systems of investigation (GC, LC- cu spectroscopie IR/NIR/MS) and characterization of phytochemical fingerprint (director) (2007-2008)
Projects CEEEX (Research of Excellence): Synergic bioactivity of antioxidant functional food in the reversibility of metabolic syndrom MET-ANTIOX (2006-2008); The impact of micotoxins produced by Fusarium fungi on the food chain, methods to reverse the toxicity, according to EU standards (2006-2008); Photothermal methods and complementary techniques for the study of quality, authenticity and adulteration of plant oils CALULVE (2006-2008); Nanostructures and nanoparticles of noble metals with plasmonic properties and applications in nanofotonics, biodetection and laser spectroscopy - NANOBIOSEC (responsible) (2006-2008); Durable valorization of medicinal plants (Echinacea Purpurea (L.) Moench, Calendula Off. L., Melissa Off. L., Tagetes Patula L., Cynara Scolymus L.) and hops by elaboration of bioactive nutraceuticals (VADUPLAMED) (responsible) (2006-2008); Impact of functional food multicomponents in the treatment of obesity and atherosclerosis (ANTIATERO-ALIM) (responsible) (2006-2008)
Projects CEEEX. Thematic network to promote the European partnership in bioencapsulation microtechnology BRG-RONET 195/2006 (director) (2006-2008); Extending of Agril laboratory competences for the evaluation and authenticity certification, quality and product conformity (functional food), according to UE legislation – AGRILCERT 109/2006 (director) (2006-2008)
Projects PN II Partnerships (2007-2010) AMPRENTAL Advanced methodologies (instrumental and chemometry) applied for the evaluation of specific fingerprint of functional food quality and authenticity (director) PHYTOMED Innovative Technologies to obtain functional food of plant origin with impact on health DROPSAN (Preparation of medicinal candies using functional ingredients)



Publications Books, book chapters and teaching books: 27

- 14 books or chapters in International Publishing houses
- 10 books / chapters in national Publ. houses
- 5 teaching books

Publications, total: > 400

(176 articles in ISI journals and more than 250 in International database cited journals BDI)

Articles published *in extenso* in proceedings of international conferences: **50**

Invited conferences (at international symposiums and universities -Germany, UK, Spain, France, Belgium, Netherlands, etc.or in RO): > 60

Invited conferences (national symposiums): >35

Index Hirsch (Web of Science): 24

CITATIONS IN ISI-Web of Science journals: 1891 (without self citations) in 1773 publications <http://apps.webofknowledge/CitationReport> (December 2018)

Index Hirsch (Google Academics): 30

CITATIONS IN Google Academics: 3725

RO Patents OSIM (8 patents) and gold/silver/bronze medals in different fairs

Known languages: English, French, German, Spanish

Relevant publications

Socaciu C. (editor) Food Colorants:Chemical And Functional Properties, CRC Press-Taylor and Francis Group, New York, 2008, **ISBN:** 9780849393570

Socaciu C., Diehl H.A. , Instruments to analyse food colors, in : Handbook of Food Analysis Instruments, (ed. S.Otles), CRC Press-Taylor and Francis Group, New York, **2009**. ISBN 978-1-4200-4566-6

Socaciu C., Updated technologies for extracting and formulating food colorants, in: Food Colorants:Chemical and Functional Properties, (ed. C.Socaciu) , CRC Press-Taylor and Francis Group, New York, 2008, 303-329. **ISBN:** 9780849393570

Socaciu C., C.Mihis and A.Noce, 2008,Oleosome Fractions Separated From Sea Buckthorn Berries: Yield And Stability Studies. in : Seabuckthorn, A Multipurpose Wonder Plant, ed. V.Singh, vol.III, Indus International, India, 313-323 **ISBN:** 9780849393570

Socaciu C. and Stanila A.,2007, Nitrates In Food, Health And The Environment in: Case studies in food safety and Environmental health (Ed. P. Ho,M.M.C.Vieira), ISEKI-Food Series Vol. **6**. Ser. Ed. Kristberg Kristbergsson, Springer, NY. p.16-25. ISBN 978-0-387-33514-8

Socaciu C., Analysis Of Chemical Food Safety, In: Safety in the Agrifood chain, (eds. Luning P., Devlieghere F., Verhe R.), Wageningen Academic Publ., **2006**, p. 525-559. ISBN 9076998779

Pintea A., Rugina D., Bunea A., Pop R., C. Socaciu, Xanthophylls protect against induced oxidation in cultured human retinal pigment epithelial cells , J. Food Comp. and Analysis, 2011, 24, 830-836. ISI 2,423

Rugină D., Z. Sconța, L. Leopold, A. Pintea, A. Bunea, **C. Socaciu***, Antioxidant activities of chokeberry extracts and the cytotoxic action of their anthocyanin fraction on HeLa human cervical tumor cells, J.Medicinal Food, March 2012, 15, 700-706. ISI 1.408

Socaciu, Advances in natural food colorant chemistry. Part 1. Current technologies applied for pigments' extraction, Agrofood Industry Hi-tech, 2009, 20(3), 43-46. ISSN 1722-6996 ISI 1,60

Socaciu, Ranga F., Fetea F., Leopold D., Dulf F., Parlog R., Complementary advanced techniques applied for plant and food Authentication, Czech J. Of Food Sciences, 2009, 27, S70-S75, ISSN 1212-1800 ISI 0.448

Leopold L.F., N.Leopold, H.A. Diehl, **C.Socaciu***, Prediction of Total Antioxidant Capacity of Fruit Juices using FTIR Spectroscopy and PLS regression, Food Anal.Methods, 2012, 5, 405-407 ISI – 0,787; SRI-1,333

Dulf F., Andrei, S., Bunea, A. , **Socaciu C.***, Fatty acid and phytosterol contents of some Romanian wild and cultivated berry pomaces, CHEMICAL PAPERS, 2012, 66, 925-934 ISI FI- 2.589



**International
and National
Positions**

UN-FAO representative of Romania in CFS Committee- High Level Panel of Experts (HLPE) since 2008
European Expert FP EU (Impact assessment of FP projects) (2001-2011)
Associated Member of Romanian Academy of Agricultural Sciences and Forestry (ASAS) since 2010
Member of the *European Bioeconomy Panel* at DG Research and Innovation, European Commission (since 2013)
Vice-rector for Research & Innovation at USAMV Cluj-Napoca, (2012-2016)
Director, Institute of Life Sciences, at USAMV Cluj-Napoca, since 2016
Prize of Romanian Academy, „Gh.Spacu”, for Chemistry 2001
Coordinator of the Department of Agrifood Chemistry and Biochemistry , USAMV Cluj-Napoca, [http:// biochim.usamvcluj.ro](http://biochim.usamvcluj.ro);
Director, Research Center, authorized by CNCISIS, 78/CC-C „ Chemistry and biochemistry of plant pigments” <http://www.usamvcluj.ro/2006/ccpv/>;
Director, Laboratory AGRIAL (under accreditation RENAR- for quality and authenticity of agrifood products). <http://www.usamvcluj.ro/cercetare/2007/AGRIAL/>
President of ASIAR – National Association of Specialists in Food Industry- division Transilvania
PhD supervisor, field: BIOTECHNOLOGY, specialization Agrifood Biochemistry and Biotechnology, Coordinator of 32 PhD thesis (on Biotechnology) finished in the last 15 years.
Member in National PhD Commissions, last 10 years: 28 Commissions at the University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca , Timisoara , Iasi and Bucharest, , University of Medicine and Pharmacy Cluj and Bucharest, University of Galati, University of Bucharest.
Member in International PhD Commissions, last 10 years: University of Wageningen (Netherlands), University of Gent (Belgium), University of Turku (Finland), University of Bremen (Germany)

15th of January 2019