



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **DULF, Francisc Vasile**

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E-mail francisc_dulf@yahoo.com

Nationality Romanian

Date of birth 24 June 1972

Gender Male

Desired employment / Occupational field

Work experience

Dates 2020-2024; 2024-
2018 October- present
2014 October- 2018 September
2007 February -2014 September
February 2005- 2007 February
1.October.2004- 1.October.2008
September. 1998- February 2004

Occupation or position held SENATOR of UASVMCN; member of Commission for Research, Development and Innovation.
PROFESSOR HABIL. Faculty of Agriculture, Department of Engineering and Environmental Protection, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca.
ASSOCIATE PROFESSOR, Faculty of Agriculture, Environmental and Plant Protection Department, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca.
LECTURER, Faculty of Agriculture, Environmental and Plant Protection Department, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca.
TEACHING ASSISTANT, Faculty of Agriculture, Environmental and Plant Protection Department, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca
PhD Student, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca; field: Biotechnology
Teacher at the Technical College „RALUCA RIPAN”, Cluj-Napoca

Name and address of employer University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca.

Education and training

Dates 2017
2009 January

1998 July

1997 June

Title of qualification awarded Habilitation- domain Biotechnology (OM 5744/27.12.2017)
PhD Diploma- domain Biotechnology (OM 3030/13.01.2009)
MSc – Catalysis and Biocatalysis
BSc in Chemistry

Name and type of organisation providing education and training University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca.
Biotechnology Area, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca.
Faculty of Chemistry and Chemical Engineering „Babes-Bolyai “University, Cluj-Napoca

Faculty of Chemistry and Chemical Engineering „Babes-Bolyai “University, Cluj-Napoca

Skills and qualifications:

Dates June 1- August 30, 2007

April 23- 25, 2007

August 22 - September 2, 2005

Scholarship, Course, Seminar, Training ,Workshop Research program (study of the phytosterols from seabuckthorn)- „University of Turku - Department of Biochemistry and Food Chemistry“-Finland;

Certificate- FPS1 -SR EN ISO/ CEI 17025: 2005; Cluj- Napoca

SOCRATES INTENSIVE PROGRAMME „ FOOD AND HEALTH“/ I.N.A. Paris – Grignon/ Gent Univ./ The Graduate School VLAG, Wageningen

Professional affiliations Member of *Society of Chemical Industry* (SCI)-since 2017

Member of Romanian Society of Biochemistry and Molecular Biology (SRBBM)- since 2010

Member of Asociaton of Food Industry Specialists (ASIAR)- since 2010

Romanian society of chemistry (SChR)- since 2010

Corresponding member of Hungarian Academy of Sciences- since 2010

Research Programs

International Programs

Member of the project: 2018-2020: NOvel Natural Antimicrobial CoaTings for food production chain/ Noi invelisuri naturale cu efect antimicrobian pentru lantul de productie alimentara; COFUND-MANUNET III-NON-ACT-2.

Member of the project: 2017-2019: ERANET-MANUNET II -TOMATOCYCLE (1) 34/14.06.2017, Sustainable exploitation of tomato processing industry by-products.

Member of the project: Food Fermentations for Purpose: Health Promotion and Biopreservation-LONGLINE; JPI. 2016-2019.

National Programs:

Project MANAGER - 2022-2024: Innovative solid-state fermentation system for enhancing the nutraceutical content of agri-food by-products; PN-III-P4-PCE-2021-0750; nr. PCE 25/2022.

Project MANAGER - 2019-2022: *Solid-State Bioprocess Development and Optimization for the Sustainable Production of Powerful Antioxidants from Grape Pomace using Food Grade Fungi.* Cod: PN-III-P2-2.1-PED-2019-1660, nr. 387PED/2020.

Project MANAGER- 2015-(2017): *BIOCONVERSION OF AGRO-FOOD WASTES INTO VALUE-ADDED FUNGAL METABOLITES (BIOAGWIVAM)*, Cod: PN-II-RU-TE-2014-4-1255, nr. 15 / 01/10/2015

Project MANAGER- 2013-(2015): *The valorification of antioxidant potential of some hydrophilic and lipophilic phytochemicals from agro-industrial Romanian bioprocessed wastes*, Cod: PN-II-RU-PD-2012-3-0245, nr.92/25.06.2013.

Project MANAGER-2013- Research grant of Univ. of Agricultural Sciences and Veterinary Medicine, Cluj-N.: *The antioxidant potential of hydrophilic and lipophilic phytochemicals from stone fruit processing wastes.* Contract nr. 1346/4/8.02.2013. Funding agency: UASVM Cluj-N.;

Project MANAGER-2012- Research grant of UASVM, Cluj-N.: *Fatty acid composition of the main lipid fractions- neutral & polar- from sea buckthorn berries (Hippophae Rhamnoides L.) ssp. Carpatica*; Contract nr. 1215/4/6.02.2012. Funding agency: UASVM Cluj-N.;

Member of the Project: PN-III-P4-ID-PCE-2020-1172, Nr. 243/2021 Nanostrategies for improving the stability and bioaccessibility of zeaxanthin, **2021-2023**.

Member of the Project: PN-III-P1-1.2-PCCDI-2017-0056; 2PCCDI/2018: Functional collaboration model between public research organizations and the economic environment with the aim of providing high-level scientific and technological services in the field of bioeconomy, **2018-2020**.

Member of the Project: PN-III-P1-1.2-PCCDI-2017-0046 (PCCDI Nr. 1/2018): The development of complex platforms for the analysis and modeling of complex biological systems (*Technobiosist*), **2018-2020**.

Member of the Project: PFE/2018: Increasing institutional performance through mechanisms for the consolidation and development of research directions within the UASVM Cluj-N.; Contract 37 PFE/2018, **2018-2020**.

Member of the Project: POC-A1-A1.1.4-E-2015; ID: P-37-637, **2016-2020**, Dezvoltarea și modelarea bioproceselor pentru obținerea de 1,3-propandiol (PD) și acid citric din glicerol brut, cu aplicații în industria alimentară / **Development and modeling of bioprocesses for the production of 1,3-propandiol (pd) and citric acid from crude glycerol with applications in the food industry**. Funding agency: ANCS.

Member of the Project: Efficient production of *Lactic acid* from crude glycerol. PN-III-P2-2.1-PED-2016-1237, **2016-2018**.

Member of the Project: PNCDI III Program 2/ 2.1 - Innovation checks (CI-2017); Innovative technologies for functional cold pressed vegetable oils: "Omega(ω)-rina" - spreadable product rich in polyunsaturated lipids and antioxidants in plants ". Nr. Financing contract: 28CI / **2017** -PN-III-P2-2.1-CI-2017-0037.

Member of the Project: New generation of probiotic functional beverages with impact on gastro intestinal health. PN-IIPT-PCCA-2013-4-0743, **2014-2016**

Member of the Project: PNCD II. 51-067- 2007- 2010; Conservation of biodiversity and genetic resources characterization of apples in the context of storage in gene banks.

Member of the project: Proiect PN II- 51049/2007 , 2007-2010 AMPRENTAL Advanced methodologies (instrumental and chemometry) applied for the evaluation of specific fingerprint of functional food quality and authenticity.

Member of the project: Project CNCSIS –UEFISCDI, project number 630 PNII – IDEI code 228/2008, 2009-2011. "Structural complex modeling of the isotope separation columns for advanced control strategies".

Member of the project: Proiect PN II -22094 -2008- 2011 CARENZI- Enzymatic transesterification technology intended for the preparation of biofuel of generation 2.

Member of the project. PN-CD nr.2488/2007, 2007-2010; Influence of microwaves on bioactive compounds present in native plants.

Member of the project: CEEX M. I.- PARTNER 2006-2008: *Coordinator the national institute of coordination and development for isotopic and molecular technologies (INCDTIM)*: Photothermic methods and complementary techniques for the study of quality , authenticity, degradation and adulteration of vegetable oils.

Member of the project: CEEX M. III- 2006-2008: *Coordinator USAMV Cluj-Napoca:* Thematic network to promote the European Partnership in bioencapsulation microtechnologies with implications in nutrition, biopharmacy and nanomedicine.

Member of the project: CEEX M. IV.- *Coordinator USAMV Cluj-Napoca* The enlargement of the agrifood laboratories competence for the evaluation and certification of authenticity, quality of some functional food products in concordance with UE standards.

Member of the project: CEEX M. I. -2006-2008: Advanced techniques for the determination of the chemical residues in animal origin food products.

Member of the project: VIASAN 360/2004; The study of the hypocholesterolemic effect of nutraceutical foods enriched with phytoosterols obtained from vegetal proteins ALFIT

List of Publications: Significant publications

Dulf, F. V., Vodnar, D. C., & Dulf, E. H. (2023). Solid-state fermentation with *Zygomycetes* fungi as a tool for biofortification of apple pomace with γ -linolenic acid, carotenoid pigments and phenolic antioxidants. ***Food Research International***, 173, 113448. (IF=8.1).

Socaciu, M.I., Semeniuc, C.A., Mureșan, E.A., Pușcaș, A., Tanislav, A., Ranga, F., **Dulf, F.**, Páll, E., Truță, A.M., Pașca, C. and Dezmirean, D.S., 2023. Characterization of some Fagaceae kernels nutritional composition for potential use as novel food ingredients. ***Food Chemistry***, 406, p.135053. (IF=9.231).

Mitrea, L., Călinoiu, L.F., Teleky, B.E., Szabo, K., Martău, A.G., Ștefănescu, B.E., **Dulf, F.V.*** and Vodnar, D.C., 2022. Waste cooking oil and crude glycerol as efficient renewable biomass for the production of platform organic chemicals through oleophilic yeast strain of *Yarrowia lipolytica*. *Environmental Technology & Innovation*, 28, p.102943. (IF=7.758).

Szabó, R., Rácz, C.P. and **Dulf, F.V.***, 2022. Bioavailability improvement strategies for icariin and its derivatives: A review. *International Journal of Molecular Sciences*, 23(14), p.7519. (IF=6.208).

Mitrea, L., Teleky, B.E., Leopold, L.F., Nemes, S.A., Plamada, D., **Dulf, F.V.***, Pop, I.D. and Vodnar, D.C., 2022. The physicochemical properties of five vegetable oils exposed at high temperature for a short-time-interval. *Journal of Food Composition and Analysis*, 106, p.104305. (IF=4.556).

Szabo, K., **Dulf, F.V.***, Teleky, B.E., Eleni, P., Boukouvalas, C., Krokida, M., Kapsalis, N., Rusu, A.V., Socol, C.T. and Vodnar, D.C., 2021. Evaluation of the bioactive compounds found in tomato seed oil and tomato peels influenced by industrial heat treatments. *Foods*, 10(1), p.110. (IF=4.35).

Urcan, A.C., Criste, A.D., Dezmirean, D.S., Bobiș, O., Bonta, V., **Dulf, F.V.**, Mărgăoan, R., Cornea-Cipcigan, M. and Campos, M.G., 2021. Botanical origin approach for a better understanding of chemical and nutritional composition of beebread as an important value-added food supplement. *LWT- Food Science and Technology*, 142, p.111068. (IF=4.952).

Dulf, F. V., Vodnar, D. C., Toșa, M. I., & Dulf, E. H. (2020). Simultaneous enrichment of grape pomace with γ -linolenic acid and carotenoids by solid-state fermentation with *Zygomycetes* fungi and antioxidant potential of the bioprocessed substrates. *Food Chemistry*, 310, 125927. (IF=5.399).

Tudor, C., Bohn, T., Iddir, M., **Dulf, F. V.**, Focșan, M., Rugină, D. O., & Pinteaa, A. (2020). Sea Buckthorn Oil as a Valuable Source of Bioaccessible Xanthophylls. *Nutrients*, 12(1), 76. (IF=4.171).

Pop, O.L., Pop, C.R, Dufrechou, M., Vodnar, D.C, Socaci, S.A., **Dulf, F.V.**, & Suharoschi, R. (2020). Edible Films and Coatings Functionalization by Probiotic Incorporation: A Review. *Polymers*, 12(1), 12. (IF=3.164).

Szabo, K., **Dulf, F. V.***, Diaconeasa, Z., & Vodnar, D. C. (2019). Antimicrobial and antioxidant properties of tomato processing byproducts and their correlation with the biochemical composition. *LWT-Food Science and Technology*, 108558. (IF=3.714) - **Corresponding author.**

Bindea, M., Rusu, B., Rusu, A., Trif, M., Leopold, L. F., **Dulf, F.***, & Vodnar, D. C. (2018). Valorification of crude glycerol for pure fractions of docosahexaenoic acid and β -carotene production by using *Schizochytrium limacinum* and *Blakeslea trispora*. *Microbial Cell Factories*, 17(1), 97. (IF=4.402). **Corresponding author.**

Dulf, F. V., Vodnar, D. C., Dulf, E. H., Diaconeasa, Z., & Socaciu, C. (2018). Liberation and recovery of phenolic antioxidants and lipids in chokeberry (*Aronia melanocarpa*) pomace by solid-state bioprocessing using *Aspergillus niger* and *Rhizopus oligosporus* strains. *LWT-Food Science and Technology*, 87, 241-249. (IF=3.714)

Dulf, F. V., Vodnar, D. C., Dulf, E. H., & Pinteaa, A. (2017). Phenolic compounds, flavonoids, lipids and antioxidant potential of apricot (*Prunus armeniaca* L.) pomace fermented by two filamentous fungal strains in solid state system. *Chemistry Central Journal*, 11(1), 92. (IF=2.442).

Vodnar, D. C., Călinoiu, L. F., **Dulf, F. V.***, Ștefănescu, B. E., Crișan, G., & Socaciu, C. (2017). Identification of the bioactive compounds and antioxidant, antimutagenic and antimicrobial activities of thermally processed agro-industrial waste. *Food Chemistry* (IF=5.399). **Corresponding author.**

Pop, O. L., **Dulf, F. V.**, Cuibus, L., Castro-Giráldez, M., Fito, P. J., Vodnar, D. C.,... & Suharoschi, R. (2017). Characterization of a Sea Buckthorn Extract and Its Effect on Free and Encapsulated *Lactobacillus casei*. *International Journal of Molecular Sciences*, 18(12), 2513. (IF=3.226).

Dulf, F. V., Vodnar, D. C., & Socaciu, C. (2016). Effects of solid-state fermentation with two filamentous fungi on the total phenolic contents, flavonoids, antioxidant activities and lipid fractions of plum fruit (*Prunus domestica* L.) by-products. *Food Chemistry*, 209, 27-36. (IF=5.399).

Dulf, F. V., Vodnar, D. C., Dulf, E. H., & Toşa, M. I. (2015). Total phenolic contents, antioxidant activities, and lipid fractions from berry pomaces obtained by solid-state fermentation of two *Sambucus* species with *Aspergillus niger*. *Journal of Agricultural and Food Chemistry*, 63(13), 3489-3500. (IF =3.571).

Fărcaş, A. C., Socaci, S. A., **Dulf, F. V.**, Tofană, M., Mudura, E., & Diaconeasa, Z. (2015). Volatile profile, fatty acids composition and total phenolics content of brewers' spent grain by-product with potential use in the development of new functional foods. *Journal of Cereal Science*, 64, 34-42. (IF=2.452).

Mărgăoan, R., Mărghitas, L.A., Dezmirean, D.S., **Dulf, F.V.***, Bunea, A., Socaci, S.A., & Bobiş, O. (2014). Predominant and secondary pollen botanical origins influence the carotenoid and fatty acid profile in fresh honeybee-collected pollen. *Journal of Agricultural and Food Chemistry*, 62(27), 6306-16. (IF =3.571).

Dulf F.V., Oroian I, Vodnar DC, Socaciu C, Pinte A. Lipid Classes and Fatty Acid Regiodistribution in Triacylglycerols of Seed Oils of Two *Sambucus* Species (*S. nigra* L. and *S. ebulus* L.). *Molecules*, 2013; 18(10):11768-11782. (IF 2012= 2.428).

F.V Dulf, Doru Pamfil, Adriana D Baci, Adela Pinte. Fatty acid composition of lipids in pot marigold (*Calendula officinalis* L.) seed genotypes. *Chemistry Central Journal* 2013, 7:8 (IF 2012= 2.094).

Vodnar DC, **Dulf FV**, Pop OL and Socaciu C. L (+)-lactic acid production by pellet-form *Rhizopus oryzae* NRRL 395 on biodiesel crude glycerol. *Microbial Cell Factories*, 2013, 12: 92 (IF 2012= 3.31).

F.V. Dulf. Fatty acids in berry lipids of six sea buckthorn (*Hippophae rhamnoides* L., subspecies *carpatica*) cultivars grown in Romania. *Chemistry Central Journal*, 2012, 6:106. (IF 2011=3.28).

Claudiu-Ioan Bunea, Nastasia Pop, Anca C Babeş, Cristian Matea, **F. V. Dulf*** and Andrea Bunea. Carotenoids, total polyphenols and antioxidant activity of grapes (*Vitis vinifera*) cultivated in organic and conventional systems. *Chemistry Central Journal*, 2012, 6:66 (IF 2011= 3.28).

F. V. Dulf, S. Andrei, A. Bunea, C. Socaciu. Fatty acid and phytosterol contents of some Romanian wild and cultivated berry pomaces. *Chemical Papers*, 2012, 66 (10) 925-34 (IF 2011=1.094).

A. Pinte, **F. V. Dulf***, Andrea Bunea, Cristian Matea, Sanda Andrei Comparative analysis of lipophilic compounds in eggs of organically raised ISA Brown and Araucana hens. *Chemical Papers* 66 (10) 955–963, 2012. (IF 2011= 1.094).

D.C. Vodnar, A. Paucean, **F. V. Dulf**, C. Socaciu, 2010, HPLC Characterization of Lactic Acid Formation and FTIR Fingerprint of Probiotic Bacteria during Fermentation Processes, *Not. Bot. Hort. Agrobot. Cluj* 38 (1), SI, pp. 109-113. (IF=0.463).

Dadarlat, D., Neamtu, C., Streza, M., Socaciu, C., Bele, C., & **Dulf, F.** (2009). Highly accurate photopyroelectric measurement of thermal diffusivity of vegetable oils. *European Journal of Lipid Science and Technology*, 111(2), 148-154. (IF = 2.144).

Streza, M., Dadarlat, D., Socaciu, C., Bele, C., **Dulf, F.**, & Simon, V. (2009). Photopyroelectric Detection of Vegetable Oils' Adulteration. *Food Biophysics*, 4(3), 147-150. (IF = 2.411).

Book chapter Dulf F.V. (2022) Plum (*Prunus domestica* L.) Wastes (Chapter 26). In: Ramadan M.F., Farag M.A. (eds) *Mediterranean Fruits Bio-wastes*; pp 605-624. **Springer**, Cham. Print ISBN 978-3-030-84435-6; Online ISBN 978-3-030-84436-3; https://doi.org/10.1007/978-3-030-84436-3_26.

Socaci, S. A., Fărcaş, A. C., **Dulf, F. V.***, Pop, O. L., Diaconeasa, Z. M., & Fogarasi, M. (2022). Health-promoting activities and bioavailability of bioactive compounds from functional foods. In: Hernández-Ledesma B. and Martínez-Villaluenga C. (eds) *Current Advances for Development of Functional Foods Modulating Inflammation and Oxidative Stress*, 17-31. Academic Press (**Elsevier**). ISBN 978-0-12-823482-2; <https://doi.org/10.1016/C2019-0-05479-9>.

A.C.Fărcaş, S.A. Socaci, E. Mudura, **F.V. Dulf**, D.C. Vodnar, M. Tofană, L.C. Salanță. *Exploitation of*

Brewing Industry Wastes to Produce Functional Ingredients (Chapter 7). In *Brewing Technology*; edited by Makoto Kanauchi, ISBN 978-953-51-3342-1, Print ISBN 978-953-51-3341-4, 208 pages, Publisher: InTech, 2017.

Reviewer Trends in Food Science & Technology (IF =8.519)
 Food Chemistry (IF =5.399).
 Food Research International (IF=3.579)
 Waste and Biomass Valorization (IF=2.35)
 Environmental Science and Pollution Research (IF=2.8)
 Lipids in Health and Disease (IF=2.219)
 Journal of Food Engineering (IF 2.168)
 Analytical Methods (IF= 1.82)
 Current Analytical Chemistry (IF=1.132)
 Chemistry Central Journal (IF=1.31)
 Acta Physiologiae Plantarum (IF=1.305)
 Journal of Food Quality (IF=0.758)

Awards: The National Research Council awards for research articles – 40

Personal skills and competences

Mother tongue(s) Specify mother tongue (if relevant add other mother tongue(s), see instructions)

Other language(s)

Self-assessment	Understanding		Speaking			Writing		
	Listening		Reading	Spoken interaction		Spoken production		
European level (*)								
English	B 2	Independent user	B 2	Independent user	B 2	Independent user	B 2	Independent user

(*) Common European Framework of Reference for Languages

Social skills and competences Dynamic person, being involved in all cultural and scientifically activities during student period. Spirit initiative through the creation of motivational strategies for engaging colleagues in activities outside the university. Leadership and organizational qualities being in team of coordination of various cultural and scientific projects.

Organisational skills and competences

Computer skills and competences Operating knowledge of Microsoft Office programs (Word, Excel, PowerPoint, Access), as well as programs that ChemWin, EndNote, Origin, Prism.
 Basic knowledge in making web sites.
 Basic understanding of graphic programs: Photoshop, Photo-Brush.

Other skills and competences Hobbies: Literature, Theater.

Driving licence Category B

Additional information

Responsible for laboratory- L 1-2 Gas chromatography coupled with GC-MS mass spectrometry (CDS1/ Institute of Life Sciences UASVMCN) (<http://cercetare.usamvcluj.ro/ISV/organizare/>);

Official reviewer for 4 PhD thesis (Babes-Bolyai "University, Cluj-Napoca; USAMV Cluj-N; "Dunarea de Jos" University of Galati; "Lucian Blaga" University of Sibiu) and 2 Habilitation thesis;

H-index =25 (Web of Science)

H-index=31(Google Scholar)

2022- **Top World Ranking of Scientists 2%**- realised by **Universitatea Stanford (California, SUA),**

Elsevier and SciTech Strategies (<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6>).

Publications in journals with impact factor/ ISI- proceedings - 69/ 18

Publications in national/international journals without impact factor– 50

Citations: 2914- acc. Google Scholar.

1790- acc. Web of Science/ 1655 (without self-citations);

Google Scholar profile: <http://scholar.google.com/citations?user=QLX-ly0AAAAJ&hl=en>

Orcid ID: <https://orcid.org/0000-0002-1669-6888>

BrainMap ID: U-1700-039Q-3192

Researcher ID: C-1548-2012

SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=24828957100>

AD Scientific Index 2022: <https://www.adscientificindex.com/scientist.php?id=914496>

UEFISCDI ID (UEF-iD): U-1700-029Q-8893

Cluj- Napoca 02.02.2024

Prof. Habil. Francisc V. DULF, PhD