



Gordana Šelo

Nationality: Croatian **Date of birth:** 17/06/1988 **Gender:** Female

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Work: Franje Kuhača 18, 31000 Osijek (Croatia)

WORK EXPERIENCE

Postdoctoral researcher

Faculty of Food Technology Osijek [23/11/2022 – Current]

City: Osijek

Country: Croatia

Current research is in the field of:

- extraction of bioactive compounds from biologically treated agricultural waste and food industry waste,
- improvement of bioavailability and bioaccessibility of phenolic compounds using different encapsulation methods and natural coatings.

Research assistant

Faculty of Food Technology Osijek [01/12/2016 – 23/11/2022]

City: Osijek

Country: Croatia

Teaching assistant in the Sub-department of mechanical, thermal and separation processes (Department of Process Engineering)

Courses:

- Heat and Mass Transfer
- Unit Operations in Food Engineering
- Unit Operations in Process Engineering
- Process Ecological Engineering

Food technologist

Pekar LTD [11/04/2016 – 30/11/2016]

City: Vinkovci

Country: Croatia

- modification of existing products and processes and development of new ones
- monitoring and controlling the production process of bakery products
- verification and improvement of safety and quality control, from the initial phase to the final product

University research assistant

Faculty of Food Technology Osijek [17/12/2014 – 20/02/2016]

City: Osijek

Country: Croatia

- experience in the project ProBioTech financed by EU structural funds (<http://www.ptfos.unios.hr/probiotech/hr/>)
- cultivation of different microorganisms by submerged and solid-state fermentation processes in tray bioreactor and horizontal bioreactor with stirrer

- production of biogas in pilot plant
- analysis of different products by TOC, UHPLC and UV-VIS spectrophotometer

EDUCATION AND TRAINING

Greenering Bubble workshop

Faculty of Food Technology and Biotechnology, University of Zagreb [20/09/2023 – 21/09/2023]

City: Zagreb

Country: Croatia

Greenering Bubble workshop: *The possibility of plant extracts preparation by applying the green extraction solvents with hands-on: deep eutectic solvents.*

PhD Student at Postgraduate university study Food Technology and Nutrition

Faculty of Food Technology Osijek [2017 – 2022]

City: Osijek

Country: Croatia

Thesis: Development of Biological Treatment and Fractionation of Grape Pomace for the Recovery of Phenolic Compounds

MSc in Process Engineering

Faculty of Food Technology Osijek [2012 – 2014]

City: Osijek

Country: Croatia

BSc in Food Technology

Faculty of Food Technology Osijek [2007 – 2012]

City: Osijek

Country: Croatia

XVII. International Chromatography School

University of Zagreb, Faculty of Chemical Engineering and Technology [06/07/2017 – 07/07/2017]

City: Zagreb

Country: Croatia

Professional development

Jozef Stefan Institute, Department of Ecology [01/09/2017 – 13/10/2017]

City: Ljubljana

Country: Slovenia

Website: <http://www.environment.si/>

ISO-FOOD summer school on trace element speciation in food ("Elemental Speciation in Food")

Jozef Stefan Institute [25/09/2017 – 27/09/2017]

City: Ljubljana

Country: Slovenia

Professional practice

Institute of Chemical Technology in Prague, Department of Microbiology and Biochemistry [20/06/2013 – 20/09/2013]

City: Prague

Country: Czechia

Website: <https://www.vscht.cz/?jazyk=en>

LANGUAGE SKILLS

Mother tongue(s): **Croatian**

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

German

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

Publications (full list available at: <https://www.croris.hr/osobe/profil/33657>)

- Mišković Špoljarić K, **Šelo G**, Pešut E, Martinović J, Planinić M, Tišma M, Bucić-Kojić A (2023) Antioxidant and antiproliferative potentials of phenolic-rich extracts from biotransformed grape pomace in colorectal Cancer. *BMC Complementary Medicine and Therapies*, 23(29):1-11. doi:10.1186/s12906-023-03852-w
- **Šelo G**, Planinić M, Tišma M, Martinović J, Perković G, Bucić-Kojić A (2023) Bioconversion of Grape Pomace with *Rhizopus oryzae* under Solid-State Conditions: Changes in the Chemical Composition and Profile of Phenolic Compound. *Microorganisms*, 11(4):956, 22. doi:10.3390/microorganisms11040956
- Martinović J, Lukinac J, Jukić M, Ambrus R, Planinić M, **Šelo G**, Klarić AM, Perković G, Bucić-Kojić A (2023) Physicochemical Characterization and Evaluation of Gastrointestinal In Vitro Behavior of Alginate-Based Microbeads with Encapsulated Grape Pomace Extracts. *Pharmaceutics*, 15(3):980, 28. doi:10.3390/pharmaceutics15030980
- Martinović J, Lukinac J, Jukić Marko, Ambrus R, Planinić M, **Šelo G**, Klarić AM, Perković G, Bucić-Kojić A (2023) In Vitro Bioaccessibility Assessment of Phenolic Compounds from Encapsulated Grape Pomace Extract by Ionic Gelation. *Molecules*, 28(13):5285, 27. doi:10.3390/molecules28135285
- Martinović J, Lukinac J, Jukić M, Ambrus R, Planinić M, **Šelo G**, Perković G, Bucić-Kojić A (2023) The Release of Grape Pomace Phenolics from Alginate-Based Microbeads during Simulated Digestion In Vitro: The Influence of Coatings and Drying Method. *Gels*, 9(11):870, 19. doi:10.3390/gels9110870
- **Šelo G**, Planinić M, Tišma M, Grgić J, Perković G, Koceva Komlenić D, Bucić-Kojić A (2022) A Comparative Study of the Influence of Various Fungal-Based Pretreatments of Grape Pomace on Phenolic Compounds Recovery. *Foods*, 11(11):1665. doi:10.3390/foods11111665
- Bucić-Kojić A, Tišma M, **Šelo G**, Grgić J, Perković G, Planinić M (2022) Winery Production Residues as Feedstocks within the Biorefinery Concept. *Engineering Power*, 17(1):11-17. <https://hrcak.srce.hr/277482>
- Rea Martinez J, **Šelo G**, Fernández-Arche MA, Bermudez B, García-Giménez MD (2021) Dual Role of Phenyl Amides from Hempseed on BACE 1, PPAR γ , and PGC-1 α in N2a-APP Cells. *Journal of Natural Products* 84(9): 2447-2453. doi: 10.1021/acs.jnatprod.1c00435
- **Šelo G**, Planinić M, Tišma M, Tomas S, Koceva Komlenić D, Bucić-Kojić A (2021) A Comprehensive Review on Valorization of Agro-Food Industrial Residues by Solid-State Fermentation. *Foods* 10(5):927, 26. doi: 10.3390/foods10050927
- Tišma M, Žnidaršič-Plazl P, **Šelo G**, Tolj I, Šperanda M, Bucić-Kojić A, Planinić M (2021) *Trametes versicolor* in lignocellulose-based bioeconomy: State of the art, challenges and opportunities. *Bioresource technology*, 330, 124997, 13. doi:10.1016/j.biortech.2021.124997

- Bucić-Kojić A, Fernandes F, Silva T, Planinić M, Tišma M , **Šelo G**, Šibalić D, Pereira, DM, Andrade PB (2020) Enhancement of the anti inflammatory properties of grape pomace treated by *Trametes versicolor*. Food Funct. 11, 680-688.

DRIVING LICENCE

Driving Licence: B

OTHER SKILLS

Computer skills

- Good command of Microsoft Office™ tools and SigmaPlot

ADDITIONAL INFORMATION

Scientific and Organising Committee Member

- Member of the Scientific and Organising Committee at the International conference 17th Ružička days "Today science - tomorrow industry", September 19-21, 2018, Vukovar, Croatia.
- Member of the technical editorial board of the *Croatian Journal of Food Science and Technology* (CJFST) published by Faculty of Food Technology Osijek, Josip Juraj Strossmayer University of Osijek (9/2022 - current).

Associate in scientific projects:

1. Inovative production of organic fertilizers and substrates for growing seedlings; European regional development fund (ERDF) (project duration: 2019. - 2022.)
 2. Bioconversion of lignocellulosic materials into high value feed; European regional development fund (ERDF) (project duration: 2019. - 2022.)
 3. Development of a sustainable integrated process for the production of bioactive isolates from food industry residues; Croatian Science Foundation (project duration: 2018. - 2022.)
 4. Croatian-Hungarian bilateral project; Encapsulation of extracts rich in polyphenols from production residues of the food industry and characterization of encapsulated particles (project duration: 2021. - 2023.)
 5. Chinese-Croatian bilateral project; Isobutanol production from lignocellulosic materials (project duration: 2019. - 2021.)
 6. Biotransformation of solid winery waste into biologically active products; OTP bank Croatia (project duration: 2017. - 2017.)
 7. Development of innovative process of agricultural waste biological treatment in biogas production "ProBioTech"; European regional development fund (ERDF) (project duration: 2014. - 2016.)
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