## Dr. Ksenia Morozova

Scopus ID: 55809290800 ORCiD: 0000-0001-6053-2111 Faculty of Agricultural, Environmental and Food Sciences Free University of Bozen-Bolzano Universitätsplatz 5 - Piazza Università, 5 Italy - 39100, Bozen-Bolzano Online CV

#### Education

- PhD in Food Chemistry, University Hohenheim, Stuttgart, Germany (2013)
- M.Sc. «International Master Vintage: Vine, Wine and Terroir Management», ESA Angers, France, University of Bologna, Italy (2009)

### Positions

- 04-04-2022 to present: Senior Technician NMR and Food Technology
- 15/01/2017 3/04/2022: Researcher with Didactic Activities (RTD A) (SSD AGR/15), Free University of Bolzano, Italy
- 1/09/2014 15/01/2017: Postdoc Researcher (AR), Free University of Bolzano, Italy

#### **Research Experience**

• 10 years of full-time research experience

#### **Research Interest**

- Nuclear magnetic resonance (NMR) and mass spectrometry (MS)
- Natural antioxidants (extraction, processing, analytics, and stability)
- Rapid methods development (electronic noses and tongues)
- Food functional properties, stability and shelf-life using isothermal calorimetry

#### **Additional Research Achievements**

- Scientific reviewer for: Food Chemistry, Antioxidants, LWT, Food Research International
- Author or co-author of 69 papers published in SCOPUS.
- Editor of the Special Issue of Sensors journal "Electrochemical Sensors in the Food Industry"
- Participation in over 10 international conferences, presenting posters, oral communications, or invited speaker.

## **Participation in Research Projects**

1. Member of the research group of the INTERREG project NETTLE "Cross-border cooperation to enhance alpine plants as a source of bioactive compounds" (2024-2026).

2. Member of the research group of the project DSM-4-FISH-OILS "Analysis of fish oil samples for characterizing their oxidizability and antioxidant properties" funded by DSM Nutritional Products AG (2023).

3. Member of the research group of the project BOTANICALS "Antioxidant activity of botanical extracts" funded by Nestlé (2023).

4. Member of the research group of the project NOVEL "Renewable proteins from oilseed processing co-products" funded by Cereal Docks S.p.A. (2021-2023).

5. Member of the research group of the FESR project INNOProdukte "Product innovation as a building block of successful rural direct marketing in South-Tirol" (2020-2023).

6. Member of the research group of the CRC project NEED "Novel extraction procedures for the detoxication of apple pomace" (2021-2024).

7. Member of the research group of the ID project INNOcell "From food waste to bio-degradable products, exploring the innovative potential of microbial cellulose" (2018-2022).

8. Responsible of the WP4 in the FESR project HEUMILCH "Chemical markers in milk associable with silage in cow's forage" (2019-2022).

9. Member of the research group of the project OLIOCRU "Encapsulation of oil recovered as byproduct from olive transformation" funded by OlioCru (2021-2022).

10. Principal investigator of SAFFRONLCMS project "Characterization and quantification of bioactive compounds in saffron extract by HPLC-PAD-MS" funded by DSM Nutritional Products AG (2021-2022).

11. Member of the research group of the project SEEDS "Exploitation of apple seeds: from an industrial by-product an essential oil" (2021-2022).

12. Co-investigator of the project MASTERCREAM4 funded by Flavor Chimica S.n.c. (2022).

13. Member of the research group of the project TextPro "Texturized protein isolates by hot melt extrusion" funded by Dr. Schär AG (2019-2020).

14. Member of the research group of the project OLICUT "Valorization and recovery of functional oils from hazelnut skins" funded by Loacker S.p.A. (2020-2021).

15. Principal investigator of the RTD project "Triple detector system for screening of foods" (2019-2022).

16. Member of the research group of the project OXYLIP "Oxidation and characterization of nutritional lipid powders" funded by DSM Nutritional Products AG (DSM) (2021).

17. Member of the research group of the project MASTERCREAM3 funded by Flavor Chimica S.n.c. (2021).

18. Co-Investigator of the project CALORYPACK "Analysis of the antioxidant functionality of packaging film" (2021).

19. Member of the research group of the project COSY "Colloidal stability of yogurt" (2020-2021).

20. Member of the research group of the project SauviGeo "Sauvignon blanc Geoproject" funded by GIR Geo Identity Research Srl (GIR) (2020).

21. Principal investigator of the DSM2020 project "Solubility study of Atorvastatin Ca, Rosuvastatin Ca in oil" funded by DSM Nutritional Products AG (DSM) (2020).

22. Member of the research group of the project GeGeo "Gewurztraminer Geoproject" funded by Kellerei Tramin Soc. Agr. Coop. (2020).

23. Member of the research group of the project ICEMAN "Iceman Conservation Project 2.0" (2019-2020).

24. Co-investigator of the project NATURALSALUS (2019-202).

25. Member of the research group of the project CREAM "Isothermal calorimetry analysis of cream formulated by A. Loacker S.p.a." funded by Loacker S.p.A. (2020).

26. Member of the research group of the project FILMOX "Analysis of film for packaging by isothermal calorimetry" (2019-2020).

27. Co-investigator of the project OILOX "Oily antioxidants" funded by DSM Nutritional Products AG (2019).

28. Member of the research group of the project MASTERCREAM2 funded by Flavor Chimica S.n.c. (2019).

29. Co-investigator of the project REDOX "Analysis of the redox potential of different food extracts" funded by DSM Nutritional Products AG (2019).

30. Member of the research group of the project PUFA "Accelerated stability studies under non-stress conditions 2" funded by DSM Nutritional Products AG (2016-2017).

31. Member of the research group of the project SPID "Stability of Powdered Food Ingredients During Storage" funded by DSM Nutritional Products AG (2017-2018).

32. Member of the research group of the project STABICAL "Stability and Shelf Life Prediction" funded by DSM Nutritional Products AG (2017-2018).

33. Co-investigator of the project PUFAMIX "Oxidative stability of polynsaturated edible oils" funded by DSM Nutritional Products AG (2019).

34. Member of the research group of the project MASTERCREAM funded by Flavor Chimica S.n.c. (2019).

# Awards

- Euregio Young Researcher Award 1st place (2016)
- Key-note Speaker Invitations: Invited key-note speaker the 4th Webinar on Agriculture, Food & Aqua (27/07/2021) and Thermo Scientific Seminars (2022, 2023).

# Memberships

- Member of SISTAL (Società Italiana di Scienze e Tecnologie Alimentari) since 2018
- Member of Italian Chemical Society (SCI) since 2019
- Member of Italian Magnetic Resonance Discussion Group (Gruppo Italiano Discussione Risonanze Magnetiche) since 2021

## Academic publications (10 selected publications)

- Razem, M., Morozova, K., Ding, Y., Ferrentino, G., & Scampicchio, M. (2024). Determination of free and bound antioxidants in Kamut<sup>®</sup> wheat by HPLC with triple detector (DAD-CAD-MS). Food Chemistry: X, 101216. (DOI: 10.1016/j.fochx.2024.101216)
- Iannone, F., Eltemur, D., Morozova, K., Fava, F., Martini-Lösch, D., Robatscher, P., ... & Scampicchio, M. (2023). Establishing authenticity of hay milk: Detection of silage feeding through cyclopropane fatty acids analysis using 1H NMR spectroscopy. Food Chemistry, 138048 (DOI: 10.1016/j.foodchem.2023.138048).
- 3. Ding, Y., Morozova, K., Angeli, L., Gasparini, A., Ferrentino, G., & Scampicchio, M. (2023). Effect of extraction treatments on the functional properties of free and bound phenols in apple seeds. Food Bioscience, 53, 102602 (DOI: 10.1016/j.fbio.2023.102602)
- Ding, Y., Morozova, K., Imperiale, S., Angeli, L., Asma, U., Ferrentino, G., & Scampicchio, M. (2022). HPLC-Triple detector (Coulometric array, diode array and mass spectrometer) for the analysis of antioxidants in officinal plants. LWT, 113456. (DOI: 10.1016/j.lwt.2022.113456)
- Imperiale, S., Morozova, K., Ferrentino, G., & Scampicchio, M. (2022). Optimized Identification of Triacylglycerols in Milk by HPLC-HRMS. Food Analytical Methods, 1-11. (DOI: 10.1007/s12161-022-02270-x)
- Morozova, K., Bulbarello, A., Schaefer, C., Funda, E., Porta, F., Scampicchio, M. Novel isothermal calorimetry approach to monitor micronutrients stability in powder forms (2020) LWT, 117, art. no. 108594. (DOI: 10.1016/j.lwt.2019.108594)
- Morozova, K., Armani, M., & Scampicchio, M. (2019) Isothermal calorimetry for monitoring of grape juice fermentation with yeasts immobilized on nylon-6 nanofibrous membranes. Journal of Thermal Analysis and Calorimetry, 1-8. (DOI: 10.1007/s10973-019-08370-x)

- Morozova, K., Rodríguez-Buenfil, I., López-Domínguez, C., Ramírez-Sucre, M., Ballabio, D., & Scampicchio, M. (2019) Capsaicinoids in Chili Habanero by Flow Injection with Coulometric Array Detection. Electroanalysis. (DOI: 10.1002/elan.201800705)
- 9. Longo, E., Morozova, K., Scampicchio, M. (2017) "Effect of light irradiation on the antioxidant stability of oleuropein." Food Chemistry. (DOI: 10.1016/j.foodchem.2017.05.099)
- Morozova, K., Romano, A., Lonardi, F., Ferrarini, R., Biasioli, F., & Scampicchio, M. (2016). "Microcalorimetric monitoring of grape withering", Thermochimica Acta, 630, 31-36 (DOI:10.1016/j.tca.2016.01.011).