

Candidate supervisor's information summary form

Name and surname, degree, title: dr hab. inż. Agata Fabiszewska	
Academic discipline/disciplines	food and nutrition technology
Professional development (degrees and titles) in chronological order	<p>2009 - Master of Science in Biotechnology, Interdepartmental Biotechnology Studies, Warsaw University of Life Sciences (SGGW)</p> <p>2013 - Doctor of Agricultural Sciences in Food Technology and Nutrition, Faculty of Food Sciences, Warsaw University of Life Sciences (SGGW)</p> <p>2023 - Habilitated Doctor in Agricultural Sciences, in the discipline of Food Technology and Nutrition, Institute of Food Sciences, Warsaw University of Life Sciences (SGGW)</p>
Most important publications/ patents in the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. Jasińska K., Zieniuk B., Piasek A.M., Wysocki Ł., Sobiepanek A., Fabiszewska A. (2024) Obtaining a biodegradable biocatalyst – study on lipase immobilization on spent coffee grounds as potential carriers. <i>Biocatalysis and Agricultural Biotechnology</i>, 59, 103255 2. Fabiszewska A., Wierzchowska K., Dębkowska I., Śliczniak W., Ziolkowska M., Jasińska K., Kobus J., Nowak D., Zieniuk B. (2024) Plant-Based Alternatives to Mold-Ripened Cheeses as an Innovation among Dairy Analogues. <i>Foods</i> 13, 2305. 3. Jasińska K., Nowosad M., Perzyna A., Bielacki A., Dziwiński S., Zieniuk B., Fabiszewska A. (2024) Sustainable Lipase Immobilization: Chokeberry and Apple Waste as Carriers. <i>Biomolecules</i>, 14, 1564 4. Wierzchowska K., Roszko M., Derewiaka D., Szulc K., Zieniuk B., Nowak D., Fabiszewska A. (2024) Yeast lipids as sustainable source of nutrients in plant-based dairy products analogues – a camembert cheese alternative case study. <i>Food Bioscience</i> 62, 105321. 5. Wierzchowska K., Szulc K., Zieniuk B., Fabiszewska, A. (2025) Bioconversion of Liquid and Solid Lipid Waste by <i>Yarrowia lipolytica</i> Yeast: A Study of Extracellular Lipase Biosynthesis and Microbial Lipid Production. <i>Molecules</i> 30, 959. 6. Fabiszewska A., Piasecka-Jóźwiak K., Choirńska R., Wróbel B., Miecznikowski A., Wierzchowska K., Świętochowski A., Dąbrowska M., Bujak M., Resheteiuk V., Lisowski A., (2025) Enhancing propionic acid formation and biogas yield from grass silage via co-fermentation of <i>Pediococcus acidilactici</i> and <i>Lentilactobacillus buchneri</i>. <i>Bioresource Technology</i> 437, article id 133107. 7. Fabiszewska A., Kobus J., Górnicka M., Piotrowicz A., Piasecka I., Nowak D. (2025) Valorization of Waste Oils Through Oleaginous <i>Yarrowia lipolytica</i> Yeast: Insights into Lipid Stability and Nutritive Properties of Lipid-Rich Biomass. <i>Applied Sciences</i>, 15, 6796. 8. Jasińska K., Zieniuk B., Bryła M., Padewska D., Brzezińska R., Kruszewski B., Nowak D., Fabiszewska A. (2025) The Double Life of Plant-Based Food Waste: A Source of Phenolic Acids and a Carrier for Immobilization of Lipases Capable of Their Lipophilization" <i>International Journal of Molecular Sciences</i> 26, 11400 9. Fabiszewska, A., Jasińska K., Wierzchowska K., Małajowicz J. (2026) <i>Rhizopus oryzae</i> Hydrolases from Solid-State Fermentation: A Gateway to Food Waste Valorization. <i>Applied Sciences</i> 16, 3: 1225.
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	<ol style="list-style-type: none"> 1. Bartłomiej Zieniuk, PhD (title of doctoral dissertation: "Enzymatic synthesis and study of the biological activity of phenolic compound esters as food additives," supervisor Prof. Ewa Białecka-Florjańczyk, PhD), Institute of Food Sciences, Warsaw University of Life Sciences, defense date 12 October 2021 – auxiliary supervisor

	<p>2. Katarzyna Wierzchowska, M.Sc. (title of dissertation: "Research on obtaining microbial oil from oil-producing yeast cells and developing a concept for its use in the production of food emulsions", commencement of studies at the Doctoral School in 2020/21, supervisor: Dr. Dorota Nowak), defense date: 8 July 2025 – auxiliary supervisor</p> <p>3. Karina Jasińska, M.Sc. (title of thesis: "Research on the enzymatic modification of phenolic compounds and its use to improve the quality of fat-rich food products", commencement of education at the Doctoral School in 2021/22 – supervisor</p> <p>4. M.Sc. Suheda UĞUR (working title of the thesis: "Studies on sustainable microbial oil synthesis, its characteristics and formulation useful for food products", commencement of education at the Doctoral School of the Warsaw University of Life Sciences in 2023/24) – supervisor</p> <p>5. Joanna Kobus, M.Sc. Eng. (working title of thesis: Research on the extraction of yeast extract from oil-producing cells of unconventional yeast of the genus <i>Yarrowia</i> as a food additive imitating meat flavor), commencement of studies at the Doctoral School of the Warsaw University of Life Sciences in 2024/25 – supervisor</p> <p>6. Aleksandra Piotrowicz, MSc (working title of thesis: Research on the biosynthesis of biosurfactants by <i>Yarrowia lipolytica</i> yeast and their use in emulsion stabilization) commencement of studies at the Doctoral School of the Warsaw University of Life Sciences in 2025/26 – supervisor</p>
<p>Achievements in the area of projects/grants (in the last 5 years)</p>	<p>1. Research project of the Ministry of Education and Science as part of the program "Student research clubs create innovations" SKN/SP/495871/2021 "Plant-based alternative to ripened cheeses with mold as an innovation among dairy analogues," 14 June 2021 - 13 June 2022 (principal investigator)</p> <p>2. Research project of the NCN - PRELUDIUM, 2022/45/N/NZ9/02583 "Biochemical pathways of storage lipid biosynthesis in oil-producing yeast cells through cultivation in media with a hydrophobic carbon source - a molecular perspective," 2023-2025, (project supervisor)</p> <p>3. Research project of the Ministry of Science and Higher Education as part of the program "Student research clubs create innovations" SKN/SP/601167/2024 "Encapsulated microbial oil as a source of valuable bioactive components", 27 May 2024 – 27 October 2025 (principal investigator)</p>
<p>Subject area of the research project for which the candidate student is being recruited</p>	<p>Biotransformations by bacteria and yeast leading to the synthesis of aroma compounds and antioxidant compounds with potential applications as food additives. Obtaining bioproducts in the cultures of unconventional yeast with simultaneous utilization of food industry waste.</p>
<p><u>Contact details:</u> Institute E-mail address Telephone number</p>	<p>Institute of Food Sciences agata_fabiszewska@sggw.edu.pl +48 22 593 76 21</p>