

Candidate supervisor's information summary form

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| Name and surname, degree, title: Agata Fabiszewska, dr hab. inż. | |
| Scientific discipline/ disciplines | Food technology and nutrition |
| Professional development (degrees and titles) in chronological order | <p>2009 - Master of Science in Biotechnology, Interdepartmental Study of Biotechnology, Warsaw University of Life Sciences.</p> <p>2013 - doctor of agricultural sciences in food technology and nutrition, Faculty of Food Sciences, SGGW in Warsaw</p> <p>2023 - PhD in agricultural sciences, in the discipline of food and nutrition technology, Institute of Food Science, SGGW in Warsaw</p> |
| Most important publications/ patents in the last 3 years (maximum 10) | <ol style="list-style-type: none"> 1. Fabiszewska A., Paplińska-Goryca M., Misiukiewicz-Stępień P., Wołoszynowska M., Nowak D., Zieniuk B. (2022): Expression profile of selected genes involved in storage lipids synthesis in a model oleaginous yeast species <i>Yarrowia lipolytica</i>. International Journal of Molecular Sciences 23(3), nr artykułu 1041. 2. Fabiszewska A., Wierzchowska K., Wołoszynowska M., Nowak D., Zieniuk B. (2022): Brine and post-frying oil management in the fish processing industry – a concept based on oleaginous yeast culture. Processes, 10, 1-12, nr artykułu 294. 3. Wróbel B; Hryniewicz M.; Kulkova, I.; Mazur, K.; Jakubowska, Z.; Borek, K.; Dobrzyński, J.; Konieczna, A.; Miecznikowski, A.; Piasecka-Józwiak, K.; Fabiszewska, A. (2023) Fermentation Quality and Chemical Composition of Industrial Hemp (<i>Cannabis sativa</i> L.) Silage Inoculated with Bacterial Starter Cultures—A Pilot Study. Agronomy, 13, 1371. 4. Jasińska K., Zieniuk B., Jankiewicz U., Fabiszewska A. (2023): Bio-Based Materials versus Synthetic Polymers as a Support in Lipase Immobilization: Impact on Versatile Enzyme Activity, Catalysts, 13(2), 1-14, numer artykułu 395. 5. Wierzchowska, K., Derewiaka, D., Zieniuk, B., Fabiszewska A. et al. Whey and post-frying oil as substrates in the process of microbial lipids obtaining: a value-added product with nutritional benefits (2023) Eur. Food. Res. Technol. 249, 2675–2688. 6. Zieniuk B., Stępniewski T., Fabiszewska A.: Do they make a good match? Molecular dynamics studies on CALB-catalyzed esterification of 3-phenylpropionic and cinnamic acids (2023): Archives of Biochemistry and Biophysics, 750, 1-8, numer artykułu:109807. 7. Małajowicz J., Khachatryan K., Oszczyda Z, Karpiński P., Fabiszewska A., Zieniuk B., Kryśowaty K. (2023) The Effect of Plasma-Treated Water on Microbial Growth and Biosynthesis of Gamma-Decalactones by <i>Yarrowia Lipolytica</i> Yeast". International Journal of Molecular Sciences 24: 1–20. 8. Fabiszewska A., Pakulska A., Zieniuk B., Wierzchowska K., Jasińska K., Małajowicz J., Nowak D. (2023) Unconventional Extraction Methods of Oleaginous Yeast Cell Pretreatment and Disruption. Applied Sciences 13, 24: 13135. |
| Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral programmes/procedures) in chronological order | <ol style="list-style-type: none"> 1. Ph.D. Bartłomiej Zieniuk, (dissertation title "Enzymatic synthesis and study of biological activity of esters of phenolic compounds as food additives", supervisor Prof. dr hab. Ewa Białecka-Florjańczyk, Institute of Food Sciences of the Warsaw University of Life Sciences, defense date 12.10.2021 - assistant supervisor. 2. Katarzyna Wierzchowska, M.Sc. (thesis title "Research on obtaining microbial oil from oleogenous yeast cells and development of the concept of its use in the production of food |

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| | <p>emulsions", the beginning of training at the Doctoral School in 2020/21, supervisor Dr. hab. Dorota Nowak) - assistant supervisor</p> <p>3. Karina Jasinska, M.Sc. (thesis title "Research on enzymatic modification of phenolic compounds and its use to improve the quality of fat-rich food products", the beginning of training at the Doctoral School in 2021/22 - supervisor</p> <p>4 M.Sc. Suheda UĞUR (working title of thesis "Studies on sustainable microbial oil synthesis, its characteristics and formulation useful for food products", the beginning of training at SGGW Doctoral School in 2023/24) - supervisor</p> |
| Project/grants achievements (in the last 10 years) | <p>1. Project of the National Science Center MINIATURA 3 2019/03/X/NZ9/00096 "Analysis of the pathways of fat biosynthesis in Yarrowia lipolytica model yeast cells in media containing a lipid carbon source", duration: 24.10.2019 - 23.10.2020(principal investigator)</p> <p>2. Research project of the Ministry of Education and Science within the framework of the program "Student scientific circles create innovations" SKN/SP/495871/2021 "Plant-based alternative of maturing cheese with mold as an innovation among dairy analogues", completion time: 14.06.2021 - 13.06.2022 (principal investigator)</p> <p>3. Project of the National Science Center PRELUDIUM 21 2022/45/N/NZ9/02583 "Biochemical pathways of reserve lipid biosynthesis in oleogenic yeast cells by culture in media with hydrophobic carbon source - molecular view" completion time: 2023 - 2025, principal investigator M.Sc. Katarzyna Wierzchowska (project supervisor)</p> |
| Topic – research problem – for which the candidate supervisor seeks a doctoral student | <p>Biotransformations involving bacteria and yeast lead to the synthesis of aroma compounds and compounds with antioxidant properties with potential use in food additives.</p> <p>Extraction of microbial oil with simultaneous disposal of food industry waste and an attempt to use it in food products.</p> |
| <p><u>Contact details:</u></p> <p>Institute</p> <p>E-mail address</p> <p>Tel.</p> | <p>Instytut Nauk o Żywności</p> <p>agata_fabiszewska@sggw.edu.pl</p> <p>+48 22 593 76 21</p> |