Candidate supervisor's information summary form
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: **prof. dr hab. Marcin A. Kurek**	
Academic discipline/disciplines	Food technology and nutrition
Professional development (degrees and titles) in chronological order	Professorship Food technology and nutrition – 02/2024 Habilitation Food technology and nutrition – 12/2018 Ph.D. Food technology and nutrition – 12/2015 MSc. Eng. Food technology and nutrition – 07/2013
Most important publications/ patents in the last 3 years (maximum 10)	1. Aktaş, H., & Kurek, M. (2024). Deep eutectic solvents for the extraction of polyphenols from food plants. Food Chemistry, 444, 138629. 2. Kurek, M., Majek, M., Onopiuk, A., Szpicer, A., Napiórkowska, A., & Samborska, K. (2023). Encapsulation of anthocyanins from chokeberry (Aronia melanocarpa) with plazmolyzed yeast cells of different species. Food and Bioproducts Processing, 137, 84-92. 3. Mohammadalinejhad, S., Almonaitytė, A., Jensen, I., Kurek, M., & Lerfall, J. (2023). Alginate microbeads incorporated with anthocyanins from purple corn (Zea mays L.) using electrostatic extrusion: Microencapsulation optimization, characterization, and stability studies. International Journal of Biological Macromolecules, 246, 125684. 4. Napiórkowska, A., & Kurek, M. (2022). Coacervation as a novel method of microencapsulation of essential oils—A review. Molecules, 27(16), 5142. 5. Szpicer, A., Onopiuk, A., Barczak, M., & Kurek, M. (2022). The optimization of a gluten-free and soy-free plant-based meat analogue recipe enriched with anthocyanins microcapsules. LWT-Food Science and Technology, 168, 113849. 6. Kurek, M., & Pratap-Singh, A. (2020). Plant-Based (Hemp, Pea and Rice) Protein-Maltodextrin Combinations as Wall Material for Spray-Drying Microencapsulation of Hempseed (Cannabis sativa) Oil. Foods, 9(11), 1707. 7. Drozińska, E., Kanclerz, A., & Kurek, M. (2019). Microencapsulation of sea buckthorn oil with β-glucan from barley as coating material. International Journal of Biological Macromolecules, 131, 1014-1020.

Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	<u>Defended doctoral theses:</u> 07/2020 - The use of β-glucan in the production of a gluten-free product made of yeast dough 08/2024 – Design of intelligent and active packaging system for simultaneous monitoring freshness and extending the shelf life of muscle foods, kopromotor, NTNU w Trondheim 01/2025 – Plant proteins in microencapsulation of essential oils using complex coacervation <u>Open doctoral theses:</u> 10/2022 - Double emulsion-based encapsulation of polyphenols stabilized by plant proteins and polysaccharides 10/2023 - Hydrolysates of insect proteins in the formation of microcapsules with phytosterols
Achievements in the area of projects/grants (in the last 5 years)	<u>Ongoing:</u> • Hydrolysates of insect proteins in the formation of microcapsules with phytosterols - 2022/47/O/NZ9/00209 – National Science Centre –01.10.2023 – 30.09.2026 - gross: 114 065 EUR • Coacervation of double emulsions with anthocyanins using plant-based proteins - 2021/43/D/NZ9/01572 - National Science Centre (program Sonata) - 03.10.2022 – 02.10.2025 - gross: 348 000 EUR <u>Realized:</u> Microencapsulation as a technique to increase the applicability of beta-glucan in the food industry - LIDER/25/0022/L-7/15/NCBR/2016 - National Centre for Research and Development (program LIDER) – 01.01.2017-31.12.2019 – gross: 259 000 EUR
Subject area of the research project for which the candidate student is being recruited	"Innovative Strategies for Improving Plant-Based Foods with Novel Fiber Sources" - This dissertation will explore new ways to integrate underexploited dietary fibers into plant-based foods to enhance their nutrition, texture, shelf-life, and consumer acceptance. The goal is to contribute to healthier diets and a more sustainable food supply by leveraging these innovative fiber incorporation techniques.
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