Name and surname:	**Anna Michalska-Ciechanowska**
Academic Degree:	dr hab. (DSc.)
Institute/Department:	Departament of Fruit, Vegetable and Plant Nutraceutical Technology
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UPWr Base of Knowledge - link:	https://bazawiedzy.upwr.edu.pl/info.seam?id=UPWr4302a969a91b4e5dade70651426ff899
Researchgate:	https://www.researchgate.net/profile/Anna-Michalska-Ciechanowska
Personal website / Working group website:	https://upwr.edu.pl/badania/wiodace-zespoly-badawcze/zywnosc-funkcjonalna-pochodzenia-roslinnego-plants4food
Participation in projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	2017-2023: National Science Centre (NCN) Sonata 2016/23/D/NZ9/02671, The analysis of the physical and chemical properties of powders obtained from the juice and pomace of selected fruits using different drying methods and determination of their influence on the chosen indicators of the immune system in in vitro model studies, (PI); 2020-2023: National Science Centre (NCN) Alphorn 2019/01/Y/NZ900051, Interactions between bioactive compounds and carrier agents during drying of fruit juices" (PI); 2021-2024: ERA-NET SUSFOOD and CORE Organic Cofunds; National Center for Research and Development (NCBR), FERBLEND - Fermentation-induced valorization of side stream blends from oilseed and dairy industry (PI)
PhD topic:	Valorisation of plant-based side streams extracts for powders production
Research discipline in Doctoral School:	Nutrition and Food Technology
Short description of the research problem to be solved in the PhD (minimum 1000 characters):	Currently, plant-based side streams from the food industry are broadly explored for the re-cycling of their bioactive components and application into different foodstuffs. Their conversion into a powdered form requires a recognition of the influence of processing (type of process, parameters applied, etc.) on the stability of biologically active compounds. The study will focus on (1) the extraction procedures used for bioactives in dependence of the material used, (2) design and addition of carriers with functional properties, (3) application of different drying techniques and parameters in order to gain the powdered forms, and (4) evaluation of physico-chemical properties of products gained. The main goal of the study will be to design sustainable powders being a natural food ingredient in easy-to-handle form that can be introduced mainly to liquid food products (possibility of resolubilization). In dependence of the type of side streams the powders composition will be adjusted to the required application.
Professional skills for PhD candidate (e.g. master program, specializations, softwares, language, analytical techniques, minimum 500 characters):	Food Technology (master program); specialization in plant-based products and/or the side streams; drying technologies of plant-based products (including spray drying, freeze drying, vacuum drying); basic laboratory skills; analytical skills: basic physical determinations of plant-based products, including moisture content, water activity, bulk density, etc. analytical skills: basic chemical determinations of plant-based products, including pH, acidity, dry matter, etc., evaluation of phenolic compounds
a) Project title:	FERBLEND - Fermentation-induced valorization of side stream blends from oilseed and dairy industry
b) Agreement number:	SF-CO-FERBLEND/3/2021 (NCBR)
c) Number of months in the project to support PhD (in months; starting from 1st of October 2022):	12
Project website:	https://tu-dresden.de/ing/maschinenwesen/int/forschung/lebensmitteltechnik-1/FERBLEND