UNIVERSITAS GADJAH MADA
FACULTY OF AGRICULTURAL TECHNOLOGY
DEPARTMENT OF FOOD & AGRICULTURAL PRODUCT TECHNOLOGY

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STAFF HANDBOOK

Name	Prof. Dr. Ir. Yudi Pranoto, S.T.P., M.P.		
Post	Food Biophysics		
Academic career	Post Doctoral (Biopolymer Technology)	Korean University, Republic of Korea	2005-2006
	Doctoral Degree (Food Bioprocess Technology)	Asian Institute of Technology, Thailand	2001-2004
	Master Degree (Plantation Technology)	Universitas Gadjah Mada, Indonesia	1998-2000
	Undergraduate Degree (Food and Agricultural Product Technology)	Universitas Gadjah Mada, Indonesia	1992-1997
Employment	Lecturer	Universitas Gadjah Mada	1999-present
	Deputy Dean for Academic and Student Affairs	Faculty of Agricultural Technology, Universitas Gadjah Mada	2021-2026

Research and development projects over the last 5 years	No.	Title of Research and Development Projects
	1	Modification of Jackfruit Seed Starch (*Artocarpus heterophyllus*) into Porous Starch as an Encapsulant Applied in Milk Fermentation Period: 2024 Amount of Financing: 55.83 million rupiah Personils: **Yudi Pranoto**
	2	Physical-Chemical Properties and In Vitro Digestibility of Lipid Amylose Complexes in Buras with Different Ratios of Rice and Coconut Milk and Repeated Cooling-Heating Cycles Period: 2024 Amount of Financing: 50 million rupiah Personils: **Yudi Pranoto**
	3	Nanocalcium from Fish Industry Waste Bone with High Calcium Bioavailability to Increase Bone Mass Density in Rats as a Model Period: 2022 Amount of Financing: 50 million rupiah Personils: **Yudi Pranoto**, Priyanto T

	4	Production of Porous Starch from Garut (*Maranta arundinacea*) with Thermostable α-Amylase and Glucoamylase Enzymes for Natural Adsorbent Application Period: 2022 Amount of Financing: 55 million rupiah Personils: **Yudi Pranoto**
	5	The Role of Nanoprecipitation in the Formation of Breadfruit Starch Nanoparticles as Emulsifiers in Pickering Emulsions Carrying Cinnamon Essential Oil (*Cinnamomum burmanii*) Period: 2021 Amount of Financing: 62 million rupiah Personils: **Yudi Pranoto**
	6	Extraction of Rice Bran Oil Using the Microemulsion Method for the Production of Nano-size Lipid Carriers (NLC) as Carriers of Bioactive Food Components Period: 2021 Amount of Financing: 34.33 million rupiah Personils: Sri Raharjo, Andriati N, **Yudi Pranoto**, Yunca MH
	7	Modification of Cassava Starch (*Xanthosoma sagittifolium*) from Maluku and Its Potential as a Hypoglycemic Food Period: 2021 Amount of Financing: 31.18 million rupiah Personils: Cynthia GCL,**Yudi Pranoto**, Yunca MH
	8	Isolation and Identification of Volatile Compounds, Precursor Compounds, and the Formation Mechanism of Volatile Compounds that Determine the Aroma of Bay Leaves (*Syzygium polyanthum Wight.*) Period: 2020 Amount of Financing: 48 million rupiah Personils: **Yudi Pranoto**, Bima Putra P, Supriyadi
	9	Production of Starch Nanoparticles Based on Breadfruit Commodities and Their Application as Emulsifiers in Food Emulsions Period: 2020 Amount of Financing: 45.8 million rupiah Personils: **Yudi Pranoto**, Bovi Wira H, Supriyanto
	10	Production of Water-Soluble Nanoencapsulation Based on Chitosan Using the Innovative Steam Explosion Process and Its Application for Nanoencapsulation of Natural Liquid Smoke Preservatives Period: 2020 Amount of Financing: 168.75 million rupiah Personils: Sri Anggrahini, **Yudi Pranoto**, Umar S

Industry collaborations over the last 5 years	No	Industry	Year

Patents and proprietary rights	No	Patents and proprietary rights	Year
	1	Starch Modification Technology	2023
Important publications over the last 5 years	Selected recent publications		
	1	Kusumawati, P., **Pranoto, Y.**, Triwitono, P., & Latief, F. D. (2024). The Effect of Grouper Bone Nano-Calcium (GBN) and Medium-Chain Triglyceride (MCT) Supplementation on the Ovariectomized Rats. Journal of Nutrition and Metabolism, 2024(1). https://doi.org/10.1155/jnme/4832594.	
	2	Witasari, L. D., Nisrina, S., Yani, A. I., Heryadi, A. A., & **Pranoto, Y.** (2024). Characterization of porous starch produced from arrowroot (*Maranta arundinacea L.*) by enzymatic hydrolysis with α-amylase and glucoamylase. Carbohydrate Polymer Technologies and Applications, Vol 7. https://doi.org/10.1016/j.carpta.2024.100445.	
	3	Purwitasari, L., Wulanjati, M. P., **Pranoto, Y.**, & Witasari, L. D. (2023). Characterization of porous starch from edible canna (*Canna edulis Kerr.*) produced by enzymatic hydrolysis using thermostable α-amylase. Food Chemistry Advances, 2. https://doi.org/10.1016/j.focha.2022.100152.	
	4	Rumiyati, Nugroho, A. E., Sani, P. N., Cahyani, S. K., Purwestri, Y. A., **Pranoto, Y.**, Saloko, S., & Widyastuti, S. (2023). Antihypertensive effect of functional rice analogue containing corn, mocaf, pigeon pea and seaweed on rats. Food Research, 7(4): 36-44. https://doi.org/10.26656/fr.2017.7(4).067.	
	5	Hasanah, Y. M., Raharjo, S., **Pranoto, Y.**, & Ningrum, A. (2023). The optimization of oil extraction by surfactant-assisted aqueous extraction process of rice bran (*Oryza sativa L.*) using Box-Behnken design. Food Research, 7(5): 219-225. https://doi.org/10.26656/fr.2017.7(5).968.	
	6	Yonata, D., Triwitono, P., Lestari, L. A., & **Pranoto, Y.** (2023). Physicochemical, structure and functional characteristics of Tacca leontopetaloides starches grown in Indonesia. Biodiversitas, 24(11): 6396-6406. https://doi.org/10.13057/biodiv/d241165.	
	7	Dewi, A. M., Santoso, U., **Pranoto, Y.**, & Marseno, D. W. (2022). Dual Modification of Sago Starch via Heat Moisture Treatment and Octenyl Succinylation to Improve Starch Hydrophobicity. Polymers, 14, 1086. https://doi.org/10.3390/ polym14061086.	
	8	Harsanto, B. W., **Pranoto, Y**., Supriyanto, & Kartini, I. (2022). Breadfruit (*Artocarpus altilis*) starch-based nanoparticle formation through dropwise mixing nanoprecipitation. Food Research, 6(3): 34-41. https://doi.org/10.26656/fr.2017.6(3).30.	
	9	Marzuki, S. U., **Pranoto, Y.**, Khumsap, T., & Nguyen, L. T. (2021). Effect of blanching pretreatment and microwave-vacuum drying on drying kinetics and physicochemical properties of purple-fleshed sweet	

		potato. Journal of Food Science and Technology, 58(8): 2884-2895. https://doi.org/10.1007/s13197-020-04789-5.		
	10	Yuliatmoko, W., Murdiati, A., **Pranoto, Y.**, & Marsono, Y. The effect of mixture of banana pseudostem flour proportion on organoleptic properties, dietary fiber content, resistant starch, and antioxidants of canna starch-based food bar. Food Research, 4(3): 906-916. https://doi.org/10.26656/fr.2017.4(3).382.		
Activities in specialist bodies over the last 5 years	No	Organisation	Role	Period
	1	Indonesian Association of Food Technologists (PATPI)	Head of National, International, and Industry Collaboration Division of PATPI Central Board	2022-2026
			Advisor of PATPI Yogyakarta Branch	2024-2027