

PROFILE FOR INSTITUTE WEBSITE

Current photo in graphic file e.g. 2024, 2023.	
Name and surname, Title	Nina Strzałkowska, dr hab.
Position	Associate Professor
Hirsch Index and Number of citations (according to Scopus) on the day of completing the form	Hirsch Index – 26 Number of citations - 2707
Research areas (in points, min. 200 characters, max. 500 characters)	– The use of feed containing polyphenolic compounds in the nutrition of farm animals. – Nutritional value and health-promoting quality of raw materials and products of animal origin. – Polymorphism of the casein and whey fractions of cow and goat milk. – Relationship between genetic and environmental factors and cholesterol concentration in milk of cows and goats. – Degradation changes in the fat fraction of milk from cows and goats. – The influence of genetic and environmental factors on reducing allergenicity and intolerance to cow's milk lactose.
Total number of completed research projects; currently implemented research projects (title and number) and selected max. 3 completed projects (title and number) from the newest ones, i.e. 2024, 2023, 2022...	– Total number of completed research projects - 12 – GUTFEED project - Assessment of the meat quality of slaughter chickens and turkeys fed with eubiotics and new technologies (NANOMIN/ FERMENT) as part of the GUTFEED project - innovative nutrition in sustainable poultry production, financed by the National Center for Research and Development. – Project BIOSTRATEG – ENERGYFEED – Strategy to provide and evaluate a database of cheap, effective and safe feed energy raw materials for animal production based on national resources, with particular emphasis on modern varieties of rye. – Project „BIOFOOD - innovative, functional products of animal origin" under the Innovative Economy Operational Program 1. Priority axis: Research and development of modern technologies. Measure 1.1: "Support for scientific research to build a knowledge-based economy." Sub-measure 1.1.2: Strategic research and development programs.
Total number of publications; ORCID (number and hyperlink to the profile); SCOPUS (number and hyperlink to the profile); indicate selected publications (max. 5)	– Total number of publications - 85 – Islam M.T., Ali E.S., Uddin S.J., Shaw S., Islam M.A., Ahmed M.I., Chandra Shill M., Karmakar U.K., Yarla N.S., Khan I.N., Billah M.M., Pieczynska M.D., Zengin G., Malainer C., Nicoletti F., Gulei D., Berindan-Neagoe I., Apostolov A., Banach M., Yeung A.W.K., El-Demerdash A., Xiao J., Dey P., Yele S., Jóźwik A., Strzałkowska N., Marchewka J., Rengasamy K.R.R., Horbańczuk J., Kamal M.A., Mubarak M.S., Mishra S.K., Shilpi J.A., Atanasov, A.G. 2018 - Phytol: A review of biomedical activities. Food and Chemical Toxicology 121, 82-94. Q1; IF=3,977.

	– Krupski W., Tatara M.R., Charuta A., Brodzki A., Szpetnar M., Jóźwik A., Strzałkowska N., Poławska E., Łuszczewska-Sierakowska I. 2018 - Sex-related differences of bone properties of pelvic limb and bone metabolism indices in 14-month-old ostriches (<i>Struthio camelus</i>). <i>British Poultry Science</i> 59 (3), 301-307. Q2; IF=1,096. – Strzałkowska N., Jasińska, K., Jóźwik A. 2018 - Physico-chemical properties of lactose, reasons for and effects of its intolerance in humans – a review. <i>Animal Science Papers and Reports</i> 36 (1), 21-31. Q3; IF=0,710. – Jóźwik, A., Strzałkowska, N., Marchewka, J., Horbańczuk, O., Szumacher-Strabel, M., Cieślak, A., Gogulski, M., Kamińska, A., Michalczyk, M., Łysek-Gładysińska, M., Atanasov, A.G. 2018 - The activity of glycosidases in Turkey muscles as influenced by the form and level of Cu, Zn, Mn dietary supplementation. <i>Animal Science Papers and Reports</i>, 36 (3), 297-310. Q3; IF=0,710. – Zdanowska-Sasiadek, Z., Marchewka, J., Horbanczuk, J.O., Wierzbicka, A., Lipinska, P., Jóźwik, A., Atanasov, A.G., Huminiecki, Ł., Sieron, A., Sieron, K., Strzałkowska, N., Stelmasiak, A., De Smet, S., Hecke, T.V., Hoffman, L.C. 2018 - Nutrients composition in fit snacks made from ostrich, beef and chicken dried meat. <i>Molecules</i>, 23 (6), Q2; IF=3,098. –
Total number of patents; selected patents (max. 2) and a hyperlink to personal patent achievements (UP RP), on the day of completing the form	– 412491 - Method for obtaining the culinary meat of an ostrich – 414678 - Method for producing a ready for consumption meal from ostrich meat and the ready for consumption meal from ostrich meat
Selected scientific achievements from the newest, i.e. 2023, 2022, 2021... (in points, min. 800 characters, max. 1000 characters)	– The use of antioxidant nanoparticle technology in poultry nutrition results in better utilization of minerals by animal organisms compared to standard supplementation. The lack of changes in the chemical composition of meat after using different doses of nanoparticles may suggest that using a lower dose is equally effective and thus reduces production costs, including feeding costs. – The influence of the cow feeding system on the glycolytic activity of milk was confirmed. Higher beta-galactosidase and alpha-glucosidase activity in the milk of cows using pasture during the growing season may result in better milk tolerance by consumers. – Improving the fatty acid profile of milk is one of the basic issues in the production of the so-called "functional food". Increasing the pool of n3 acids leads to a reduction in inflammatory processes. – The results of research on the CSN1S1 polymorphism indicate the existence of clear differences between the presence of individual polymorphic forms of this protein and the content in goat milk: fat, total protein, casein proteins and the value of the most important technological parameters.
Number and list of defended PhD students from the latest, i.e. 2024, 2023, 2022...	– Dr Karolina Rutkowska – „Transkryptom i epigenom płodów bydłęcych z zahamowanym wzrostem”.

Organizational activities, dissemination of knowledge and others (in points, min. 300 characters, max. 1000 characters)	– Co-organizer of four scientific conferences, including two international ones. – Lectures ordered: SGGW in Warsaw, WSR in Warsaw, UJK in Kielce – Lectures for students: of UP Lublin, UP Wrocław, SGGW Warszawa, UJK Kielce – Development of an original program in the field of food quality assessment for students of WSR in Warsaw. – Participation in the promotion of science as part of the Science Festival in Olsztyn. – Consultations for PhD students from the University of Technology and Life Sciences in Bydgoszcz, UP in Poznań, UP in Lublin and ZUT in Szczecin. Scientific consultations concerning the determination of polymorphic forms of casein and whey proteins in the milk of cows and goats, the determination of cholesterol in biological samples and the use of dry chemistry to determine the parameters of the metabolic profile in the serum of cows and goats. – Broadcast on television, program I – on the nutritional and health-promoting value of raw materials and products of animal origin.
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