


# Curriculum Vitae

Personal Information	<b>Name</b>	Katarzyna Wolny-Koładka	<b>Gender</b>	Female	
	<b>Academic Title</b>	Ph.D.			
	<b>College</b>	Department of Microbiology and Biomonitoring, University of Agriculture in Krakow, Mickiewicza Ave 24/28, 30-059 Krakow, Poland			
	<b>Discipline</b>	environmental microbiology, agronomy			
	<b>Email</b>	katarzyna.wolny@urk.edu.pl			
Educational Background	<b>Telephone (office)</b>				
	<b>Mail Add.</b>				
	<p><b>Degree obtained: MSc Eng.</b> University of Agriculture in Krakow, Poland; Biotechnology – Interfaculty Program; Field of study: Biotechnology; Specialty: Applied Biotechnology</p> <p>MSc thesis title: <i>Streptococcus agalactiae</i> (GBS) – characteristics of strains isolated from female reproductive organs during reproductive period. The aim of the thesis was to isolate, identify and evaluate the drug-resistance of <i>S. agalactiae</i> strains, taking into account their genetic diversity.</p> <p>Thesis presentation date: 23 June 2009</p> <p><b>Title obtained: PhD in Agricultural Sciences;</b> University of Agriculture in Krakow, Poland; Field of study: Agronomy; Specialty: Microbiology</p> <p>PhD thesis title: <i>Biodiversity and reaction of Fusarium fungi to selected factors in in vitro testing.</i> The aim of the thesis was to isolate, identify and evaluate the biodiversity of <i>Fusarium</i> genus strains and assess their sensitivity to selected xenobiotics, along with a genetic analysis of their ability to produce selected mycotoxins.</p> <p>Date of title conferment: 27 June 2013</p> <p><b>Title obtained: Doctor Habilitatus, Agricultural Sciences;</b> University of Agriculture in Krakow, Poland; Field of study: Agronomy</p> <p>Monothematic collection of papers entitled: <i>Microbiological threats present in the environment of horse riding centers, in particular in terms of spread of drug-resistant strains of Escherichia coli and Staphylococcus spp., along with determination of the bactericide potential of silver nanoparticles towards those bacteria.</i> The aim of the presented scientific accomplishment was a profound analysis of potential microbiological threats connected to horse riding and the evaluation of possibility of application of nanosilver as an ingredient in disinfectants used to clean compartments where horses are kept.</p> <p>Date of title conferment: 24 April 2019</p>				
	<b>Working Experience</b>	<p><b>01-01-2020 – today:</b> UA Professor at the Department of Microbiology and Biomonitoring, Faculty of Agriculture and Economy, University of Agriculture in Krakow.</p>			

	<p><b>01.07.2020 – today:</b> senior lecturer-researcher at the TEAM-NET project, AGH University of Science and Technology Faculty of Geology, Geophysics and Environmental Protection Department of Mineralogy, Petrography and Geochemistry, Krakow, Poland</p> <p><b>01-07-2019 – 31-12-2019:</b> UA Associate Professor at the Department of Microbiology and Biomonitoring, Faculty of Agriculture and Economy, University of Agriculture in Krakow.</p> <p><b>01-10-2015 – 30-06-2019:</b> senior lecturer-researcher at the Department of Microbiology and Biomonitoring, Faculty of Agriculture and Economy, University of Agriculture in Krakow.</p> <p><b>01-10-2013 – 30-09-2015:</b> lecturer-researcher at the Department of Microbiology, Faculty of Agriculture and Economy, University of Agriculture in Krakow.</p>
<p><b>Research Interests</b></p>	<p>antimicrobial resistance; microorganisms; antibiotic resistant bacteria; antibiotic resistance genes; fungi; bacteria; waste; nanoparticles; environmental protection, environmental microbiology, agronomy</p>
<p><b>Major Publications*</b></p>	<ol style="list-style-type: none"> <li>1. <b>Wolny-Koladka K.*</b> 2015. The prevalence of selected genes involved in the biosynthesis of trichothecenes assessed with the specific PCR tests in <i>Fusarium</i> spp. isolated from cereals in southern Poland. Journal of Environmental Science and Health, Part B. Pesticides, Food Contaminants, and Agricultural Waste, 50:361-367. DOI: 10.1080/03601234.2015.1000183. <b>(IF 1.202; 20 MNiSW pts.)</b></li> <li>1. <b>Wolny-Koladka K.*</b>, Lenart-Boroń A., Boroń P. 2015. Species composition and molecular assessment of the toxigenic potential in the population of <i>Fusarium</i> spp. isolated from ears of winter wheat in southern Poland. Journal of Applied Botany and Food Quality, 88:139-144, DOI:10.5073/JABFQ.2015.088.020. <b>(IF 0.814; 20 MNiSW pts.)</b></li> <li>3. Lenart-Boroń A., <b>Wolny-Koladka K.</b> 2015. Heavy metal concentration and the occurrence of selected microorganisms in soils of a steelworks area in Poland. Plant Soil Environment, 61:273-278. DOI: 10.17221/217/2015-PSE. <b>(IF 1.226; 30 MNiSW pts.)</b></li> <li>4. Lenart-Boroń A., <b>Wolny-Koladka K.</b>, Stec J., Kasprowicz A. 2016. Phenotypic and molecular antibiotic resistance determination of airborne coagulase negative <i>Staphylococcus</i> spp. strains from healthcare facilities in southern Poland. Microbial Drug Resistance, 22(7):515-522. DOI: 10.1089/mdr.2015.0271. <b>(IF 2.306; 25 MNiSW pts.)</b></li> <li>5. <b>Wolny-Koladka K.*</b>, Lenart-Boroń A. 2016. Phenotypic and molecular assessment of drug resistance profile and genetic diversity of waterborne <i>Escherichia coli</i>. Water, Air Soil Pollution, 227:146. DOI: 10.1007/s11270-016-2833-z. <b>(IF 1.702; 25 MNiSW pts.)</b></li> <li>6. Malinowski M., <b>Wolny-Koladka K.</b> 2017. Microbiological and energetic assessment of the effects of the biodrying of fuel produced from waste. Ecological Chemistry and Engineering S, 24(4):551-564. DOI: 10.1515/eces-2017-0036. <b>(IF 0.717; 15 MNiSW pts.)</b></li> <li>7. Lenart-Boroń A., <b>Wolny-Koladka K.</b>, Juraszek K., Kasprowicz A. 2017. Phenotypic and molecular assessment of antimicrobial resistance profile of airborne <i>Staphylococcus</i> spp. isolated from flats in Kraków. Aerobiologia, DOI: 10.1007/s10453-017-9481-7. <b>(IF 2.202; 25 MNiSW pts.)</b></li> <li>8. <b>Wolny-Koladka K.</b>, Malina D. 2017. Toxicity assessment of silver nanoparticles against <i>Escherichia coli</i> strains isolated from horse dung. Micro &amp; Nano Letters, 12(10):772-776. DOI: 10.1049/mnl.2017.0129. <b>(IF 0.723; 15 MNiSW pts.)</b></li> <li>9. <b>Wolny-Koladka K.*</b>, Malina D. 2017. Silver nanoparticles toxicity against airborne strains of <i>Staphylococcus</i></li> </ol>

	<p>spp. Journal of Environmental Science and Health, Part A. Toxic/Hazardous Substances and Environmental Engineering, 52(13):1247-1256. DOI: 10.1080/10934529.2017.1356186. <b>(IF 1.561; 20 MNiSW pts.)</b></p> <p>10. <b>Wolny-Koladka K.*</b> 2018. Microbiological quality of air in free-range and box-stall stable horse keeping systems. Environmental Monitoring and Assessment, 190:269. DOI: 10.1007/s10661-018-6644-0. <b>(IF 1.804; 25 MNiSW pts.)</b></p> <p>11. <b>Wolny-Koladka K.*</b>, Malina D. 2018. Eco-friendly approach to the synthesis of silver nanoparticles and their antibacterial activity against <i>Staphylococcus</i> spp. and <i>Escherichia coli</i>. Journal of Environmental Science and Health, Part A. Toxic/Hazardous Substances and Environmental Engineering, DOI: 10.1080/10934529.2018.1474568. <b>(IF 1.561; 20 MNiSW pts.)</b></p> <p>12. <b>Wolny-Koladka K.*</b>, Lenart-Boroń A. 2018. Antimicrobial resistance and the presence of extended-spectrum-beta-lactamase genes in <i>Escherichia coli</i> isolated from the environment of horse riding centers. Environmental Science and Pollution Research, 25:21789-21800. DOI: 10.1007/s11356-018-2274-x. <b>(IF 2.800; 30 MNiSW pts.)</b></p> <p>13. <b>Wolny-Koladka K.*</b> 2018. Resistance to antibiotics and the occurrence of genes responsible for the development of methicillin resistance in <i>Staphylococcus</i> bacteria isolated from the environment of horse riding centers. Journal of Equine Veterinary Science, 61:65-71. DOI: 10.1016/j.jevs.2017.11.010. <b>(IF 0.882; 20 MNiSW pts.)</b></p> <p>14. <b>Wolny-Koladka K.*</b>, Żukowski W. 2019. Mixed municipal solid waste hygienisation for refuse-derived fuel production by ozonation in the novel configuration using fluidized bed and horizontal reactor. Waste and Biomass Valorization, 10(3): 575-583. DOI: 10.1007/s12649-017-0087-7. <b>(IF 1.874; 20 MNiSW pts.)</b></p> <p>15. <b>Wolny-Koladka K.*</b>, Malinowski M., Pieklik A., Kurpaska S. 2019. Microbiological air contamination in university premises and the evaluation of drug resistance of staphylococci occurring in the form of a bioaerosol. Indoor and Built Environment, 28(2):235-246. DOI: 10.1177/1420326X17748463. <b>(IF 1.181; 20 MNiSW pts.)</b></p> <p>16. Malinowski M., <b>Wolny-Koladka K.</b>, Vaverková MD. 2019. Effect of biochar addition on the OFMSW composting process under real conditions. Waste Management, 84:364-372. DOI: 10.1016/j.wasman.2018.12.011. <b>(IF 4.723; 40 MNiSW pts.)</b></p> <p>17. Mierzwa-Hersztek, <b>Wolny-Koladka K.</b>, Gondek K., Gałzka A., Gawryjolek K. 2019. Effect of coapplication of biochar and nutrients on microbiocenotic composition, dehydrogenase activity index and chemical properties of sandy soil. Waste and Biomass Valorization, DOI: 10.1007/s12649-019-00757-z <b>(IF 2.358; 20 MNiSW pts.)</b></p> <p>18. Kopeć M., Mierzwa-Hersztek M., Gondek K., <b>Wolny-Koladka K.</b>, Zdaniewicz M., Jarosz R. 2020. Biological activity of composts obtained from hop waste generated during the brewing. Biomass Conversion and Biorefinery, DOI: 10.1007/s13399-020-00746-6 <b>(IF 2,602; 70 pkt. MNiSW)</b></p> <p>19. <b>Wolny-Koladka K.</b>, Malinowski M., Żukowski W. 2020. Impact of calcium oxide on hygienization and self-heating prevention of biologically contaminated polymer materials. Materials, 13, 4012. DOI: 10.3390/ma13184012. <b>(IF 3,057; 140 pkt. MNiSW)</b></p>
<p><b>Research Projects*</b></p>	<ol style="list-style-type: none"> <li>1. <b>21-07-2014 – 13-04-2018</b> member of the Management Committee of COST ES1307 (European Cooperation in Science and Technology). Sewage biomarker analysis for community health assessment.</li> <li>2. <b>08-2014 – 13-04-2018</b> member of Working Group Two – Innovative techniques for community health assessment during the COST ES1307 event.</li> </ol>

	<p>3. <b>17-04-2015 – 12-11-2018</b> member of the working group during the COST ES1403 (European Cooperation in Science and Technology) event. ESSEM COST Action ES1403 New and emerging challenges and opportunities in wastewater reuse (NEREUS) – Working Group One.</p> <p>4. <b>09-2015 – 12-2016</b> Participation as <b>contractor</b> in the project called 'EkoRDF – innovative technology of producing alternative fuel from household waste heat and power plants as a key element of waste management system in Poland' in the position of <b>microbiology specialist</b>. This project was implemented as part of the 'Gekon' Program – Generator of Ecological Concepts; project no. GEKON2/05/268002/17/2015, co-financed by the National Center for Research and Development and the National Environmental Protection and Waste Management Fund. Project was implemented by a consortium formed by: EKO-BIOMASA Sp. z o.o. – Leader of the Consortium; University of Agriculture in Krakow; Polish Academy of Sciences Mineral and Energy Economy Research Institute; Chemical Coal Processing Institute.</p> <p>5. <b>04-2018 – 03-2019</b> Participation as <b>contractor</b> in the project called 'Influence of biochar addition on creation of anaerobic zones in the process of aerobic stabilization of waste' in the position of <b>microbiology specialist</b>. This project was implemented as part of the 'Miniatura' Program; project no. G-1601/IIRIL-ZITIE/18-19, financed by the National Center of Science.</p> <p>6. <b>04-11-2018 – 03-11-2021</b> Participation as <b>contractor</b> in the project called 'Polish varieties of hops as a foundation for the development of the brewing industry' in the position of <b>chief microbiologist</b>. Project no. LIDER/46/0185/L-9/17/NCBR/2018, financed by the National Center for Research and Development, implemented as part of the 'Lider IX' Program.</p> <p>7. <b>01.07.2020 – today</b> senior lecturer-researcher at the TEAM-NET project, AGH University of Science and Technology Faculty of Geology, Geophysics and Environmental Protection Department of Mineralogy, Petrography and Geochemistry, Krakow, Poland. FUNash project entitled „Fly ashes as the precursors of functionalized materials for applications in environmental engineering, civil engineering and agriculture” assumes using fly ashes for the synthesis of novel functionalized materials with the structure of zeolites, mesoporous silica materials, mineral-organic composites, and metal-organic frameworks. Functionalized materials will be used in construction (cements and microbial biocements), agriculture (fertilizers and biostimulators/bioinhibitors) and environmental engineering (adsorbents and bioproducts for remediation of polluted waters, soils and gasses).</p>
<p><b>Professional Membership</b></p>	<p>Polish Society of Microbiologists</p>
<p><b>Potential Research Projects**</b></p>	<p>Projects related to broadly understood microbiology.</p>

\* Please list achievements of recent 5 years

\*\* This CV is intended to match Chinese and Polish Scientists within SPUC member universities, and Potential Research Projects is intended to apply for Sino-Polish or EU scientific cooperation projects.