



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Karolina Mielko-Niziałek
Grade / Title:	dr inż.
Scientific discipline	Chemical sciences
Faculty:	Faculty of Chemistry
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Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	https://scholar.google.com/citations?user=3PjPeyoAAA&hl=pl&oi=ao

2. Publication record

Up to 10 most important papers published over the period of previous 10 years.

No.	Description (authors, publication title, journal / conference, DOI)	Publication year
1.	<i>A single dose of glycogen phosphorylase inhibitor improves cognitive functions of aged mice and affects the concentrations of metabolites in the brain</i> , N. Pudełko-Malik, D. Drulis-Fajdasz, Ł. Pruss, K. A. Mielko-Niziałek , D. Rakus, A. Gizak, P. Młynarz, Scientific Reports, 14:24123, https://doi.org/10.1038/s41598-024-74861-z	2024
2.	<i>Examination of internal metabolome and VOCs profile of brewery yeast and their mutants producing beer with improved aroma</i> , S. J. Jabłoński, K. A. Mielko-Niziałek , P. Leszczyński, A. Gasiński, J. Kawa-Ryglewska, P. Młynarz, M. Łukaszewicz, Scientific Reports, 14 (14582) https://doi.org/10.1038/s41598-024-64899-4	2024
3.	<i>Recent innovations in fertilization with treated digestate from food waste to recover nutrients for arid agricultural fields</i> , D. Skrzypczak, K. Trzaska, M. Mironiuk, K. Mikula, G. Izydorczyk, X. Polomska, J. Wiśniewski, K. A. Mielko , K. Moustakas, K. Chojnacka, Environmental Science and Pollution Research, https://doi.org/10.1007/s11356-023-31211-2	2023
4.	<i>Precision nutrition in NAFLD: Effects of a high-fiber intervention on the serum metabolome of NAFLD patients – a pilot study</i> , E. Stachowska, D. Maciejewska-Markiewicz, J. Palma, K. A. Mielko , B. Qasem, K. Kozłowska-Pietrzko, M. Ufnal, K. E. Sokołowska, V. Hawryłkiewicz, P. Załęska, K. Jakubczyk, E. Wunsch, K. Ryterska, K. Skoniczenia-Żydecka, P. Młynarz, Nutrients, 14(24): 5355	2022
5.	<i>Metabolomics comparison of drug-resistant and drug-susceptible Pseudomonas aeruginosa strains (intra- and extracellular analysis)</i> , K. A. Mielko , S. Jabłoński, Ł. Pruss, J. Milczewska, D. Sands, M. Łukaszewicz, P. Młynarz, International Journal of Molecular Science, 22(19):10820, doi: 10.3390/ijms221910820	2021
6.	<i>Comparison of bacteria disintegration methods and their influence on data analysis in metabolomics</i> , K. A. Mielko , S. Jabłoński, M. Łukaszewicz, P. Młynarz, Scientific Reports, 11:20859, doi: 10.1038/s41598-021-99873-x	2021



7.	<i>Gender-specific metabolomics approach to kidney cancer</i> , S. Deja, A. Litarski, K. A. Mielko , N. Pudełko-Malik, W. Wojtowicz, A. Ząbek, T. Szydełko, P. Młynarz, <i>Metabolites</i> , 11:767, doi: 10.3390/metabo11110767	2021
8.	<i>Possible metabolic switch between environmental and pathogenic Pseudomonas aeruginosa strains: ¹H NMR based metabolomics study</i> , K. A. Mielko , S. Jabłoński, W. Wojtowicz, J. Milczewska, D. Sands, M. Łukaszewicz, P. Młynarz, <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 188 (113369), doi: 10.1016/j.jpba.2020.113369	2020
9.	<i>An optimization of liquid-liquid extraction of urinary volatile and semi-volatile compounds and its application for gas chromatography-mass spectrometry and proton nuclear magnetic resonance spectroscopy</i> , N. Drabińska, P. Młynarz, B. Costello, P. Jones, K. A. Mielko , J. Mielnik, R. Persad, N. M. Ratcliffe, <i>Molecules</i> , 25(16):3651, s. 1-13; doi: 10.3390/molecules25163651	2020
10.	<i>Metabolomic studies of Pseudomonas aeruginosa</i> , K. A. Mielko , S. J. Jabłoński, J. Milczewska, D. Sands, M. Łukaszewicz, P. Młynarz, <i>World Journal of Microbiology and Biotechnology</i> , 35(11):178, doi: 10.1007/s11274-019-2739-1	2019

3. Projects and grants

List of the most important 5 projects/grants with basic description including: title, source(s) of funding, name of the call, role in the project (e.g., principal investigator).

1.	Role in the project (e.g., principal investigator, work package leader, etc.)	Project manager
	Project title	Zmiany metaboliczne u pacjentów cierpiących na mukowiscydozę będące efektem zakażeń <i>Pseudomonas aeruginosa</i>
	Sources of funding	NCN
	Name of the call	Miniatura 7
	Implementation period	30.05.2023-29.05.2025
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	Project manager
	Project title	Molecular mechanism of drug-resistance <i>Pseudomonas aeruginosa</i> strains – metabolomics studies
	Sources of funding	Faculty of Chemistry
	Name of the call	Grant Wewnętrzny
	Implementation period	18.05.2023-30.09.2024
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	-
	Project title	-
	Sources of funding	-
	Name of the call	-
	Implementation period	-
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	-



	Project title	-
	Sources of funding	-
	Name of the call	-
	Implementation period	-
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	-
	Project title	-
	Sources of funding	-
	Name of the call	-
	Implementation period	-

4. International experience

Brief description of international cooperation and experience (e.g., research stays, cooperation with foreign entities, coordination or participation in international projects or programmes, keynote speeches and presentations delivered at renowned international conferences, visiting professor stays, invited lectures).

No.	Description	Year(s)
1.	Internship in Medical Biotechnology Department, University in Siena, Italy.	2021
2.	Cooperation with The University of Texas Southwestern Medical Center in Dallas, USA, which allowed to prepare the scientific publication.	2021
3.	Cooperation with Institute of Biosensor Technology, University of the West of England in Bristol, which allowed to prepare the scientific publication.	2020

5. Experience in teaching doctoral students

Brief description of experience in teaching doctoral students (e.g., courses in doctoral schools and PhD studies, summer/winter schools for doctoral students, tutorials, trainings, etc.).

No.	Description	Year(s)
1.	-	-
2.	-	-
3.	-	-

6. List of supervised doctoral students

List of all supervised doctoral students that defended the PhD including: name of the student, dissertation title, year of awarding PhD.

No.	Name, surname	Dissertation title	Year of awarding PhD
1.	-	-	-
2.	-	-	-
3.	-	-	-



7. Prizes and awards

The most important national and international prizes and awards related to research, development and teaching activities.

No.	Description	Year
1.	Rector's Award of the Wrocław University of Science and Technology	2023
2.	Prize in the <i>Primus</i> Program of the Wrocław University of Science and Technology	2023
3.	Prize in the <i>Secundus</i> Program of the Wrocław University of Science and Technology	2023
4.	Rector's Award of the Wrocław University of Science and Technology for the best doctoral students	2022
5.	Dean's Award of the Wrocław University of Science and Technology for the best doctoral students	2020
6.	1st prize for the best short presentation at the Metabolomic Circle 2020 conference	2020

8. Other significant achievements

Information on other significant achievements related to research, development and teaching activities.

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