

Candidate supervisor's information summary form

Name and surname, degree, title: Ewa Muszyńska-Sadłowska, DSc.	
Discipline/ disciplines of science	Biological sciences
Professional development (degrees and titles) in chronological order	<p>IX. 2021 doctor habilitated, field of natural sciences, discipline: biological sciences, Warsaw University of Life Sciences-SGGW</p> <p>XII. 2015 Doctor of Agricultural Science, specialty: Botany, University of Agriculture in Krakow</p> <p>VI. 2011 Master of Science, specialty: Horticulture with marketing, University of Agriculture in Krakow</p> <p>IX. 2008 Master of Science, specialty: Plant Biology, Jagiellonian University in Krakow</p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. Muszyńska E.*, Labudda M., Róžańska E., Hanus-Fajerska E., Znojek E. 2018. Heavy metal tolerance in contrasting ecotypes of <i>Alyssum montanum</i>. <i>Ecotoxicology and Environmental Safety</i>, 161: 305-317 DOI: 10.1016/j.ecoenv.2018.05.075. 2. Muszyńska E.*, Labudda M. 2019. Dual Role of Metallic Trace Elements in Stress Biology—From Negative to Beneficial Impact on Plants. <i>International Journal of Molecular Sciences</i>, 20: 3117. DOI: 10.3390/ijms20133117. 3. Muszyńska E.*, Labudda M., Róžańska E., Hanus-Fajerska E., Koszelnik-Leszek A. 2019. Structural, physiological and genetic diversification of <i>Silene vulgaris</i> ecotypes from heavy metal-contaminated areas and their synchronous <i>in vitro</i> cultivation. <i>Planta</i>, 249: 1761-1778. DOI: 10.1007/s00425-019-03123-4. 4. Muszyńska E.*, Labudda M., Kamińska I., Górecka M., Bederska-Błaszczuk M. 2019. Evaluation of heavy metal-induced responses in <i>Silene vulgaris</i> ecotypes. <i>Protoplasma</i>, 256 (5): 1279-1297. DOI: 10.1007/s00709-019-01384-0. 5. Muszyńska E., Labudda M., Hanus-Fajerska E. 2019. Changes in proteolytic activity and protein carbonylation in shoots of <i>Alyssum montanum</i> ecotypes under multi-metal stress. <i>Journal of Plant Physiology</i>, 232: 61-64. DOI: 10.1016/j.jplph.2018.11.013. 6. Muszyńska E.*, Labudda M., Kral A. 2020. Ecotype-specific pathways of reactive oxygen species deactivation in facultative metallophyte <i>Silene vulgaris</i> (Moench) Garcke treated with heavy metals. <i>Antioxidants</i>, 9 (2): 102. DOI: 10.3390/antiox9020102. 7. Muszyńska E.*, Labudda M. 2020. Effects of lead, cadmium and zinc on protein changes in <i>Silene vulgaris</i> shoots cultured <i>in vitro</i>. <i>Ecotoxicology and Environmental Safety</i>, 204: 111086. DOI: 10.1016/j.ecoenv.2020.111086. 8. Muszyńska E.*, Tokarz K., Dziurka M., Labudda M., Dziurka K., Piwowarczyk B. 2021. Photosynthetic

	apparatus efficiency, phenolic acid profiling and pattern of chosen phytohormones in metal-tolerant and intolerant <i>Alyssum montanum</i> ecotypes. Scientific Reports, 11: 4135. DOI: 10.1038/s41598-021-83695-y
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	None
Project/grants achievements (from the last 10 years)	<p>Manager: 2017-2018, National Science Center, Miniatura 1, no. 2017/01/X/NZ8/00382</p> <p>2017, project granted to conduct scientific research for the development of young scientists and participants of doctoral studies at the Faculty of Agriculture and Biology, Warsaw University of Life Sciences (nr 505-10-011100-P00136-99).</p> <p>2013, project granted to conduct scientific research for the development of young scientists and participants of doctoral studies at the Faculty of Horticulture, University of Agriculture in Krakow (nr 4562/2013)</p> <p>Investigator: 2016, Ministry of Agriculture and Rural Development, HORre-msz-078-24/16(242) 2012-2014, National Science Center, NN 310 725040 2011-2013, National Science Center, NN 310 163338</p>
Topic – research problem – for which the candidate supervisor seeks a doctoral student	(1) Structural and metabolic adaptations of selected pseudometallophytes to growth in the presence of elevated concentration of metallic trace elements and other abiotic and biotic stressors. (2) Strategies increasing plant resistance to various stresses.
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