

Candidate supervisor's information summary form
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title:	Prof. Grzegorz Bartoszewski
Academic discipline/disciplines	biological sciences
Professional development (degrees and titles) in chronological order	<p>2018 – professor, plant genetics and breeding</p> <p>2007 – habilitation, biotechnology</p> <p>2000-2002 – postdoc, University of Wisconsin, Madison, USA</p> <p>1997 – PhD in agriculture</p> <p>1995 – Research Fellow, CPRO Wageningen, The Netherlands</p> <p>1993 – MSc, plant genetics</p>
Most important publications/ patents in the last 3 years (maximum 10)	<p>Biernacki B, Słomnicka R, Kaźmińska K, Mużacz S, Bartoszewski G (2024) A single nucleotide substitution introducing premature stop codon within <i>CsTFL1</i> explains the determinate-2 phenotype in cucumber (<i>Cucumis sativus</i> L.). <i>Sci Rep</i> 14:76549. https://doi.org/10.1038/s41598-024-76549-w</p> <p>Słomnicka R, Cieplak M, Antosiewicz M, Sadlos A, Galczak A, Kaźmińska K, Bartoszewski G (2024) Identification of quantitative trait loci for <i>in vitro</i> plant regeneration from leaf microexplants in cucumber (<i>Cucumis sativus</i> L.). <i>Journal of Applied Genetics</i> https://doi.org/10.1007/s13353-024-00927-3</p> <p>Dostatny DF, Bakalarska A, Korzeniewska A, Kaźmińska K, Bartoszewski G (2024) Changes in plant genetic resources in the southeast region of Poland from the 1980s to 2023. <i>Agronomy</i> 14:2992. https://doi.org/10.3390/agronomy14122992</p> <p>Kaźmińska K, Korzeniewska A, Słomnicka R, Gniazdowska A, Bartoszewski G (2024) Impact of nitrogen fertilization on fruit parameters of four <i>Cucurbita maxima</i> cultivars grown in Poland. <i>Agriculture</i> 15:42. https://doi.org/10.3390/agriculture15010042</p> <p>Minicka J, Taberska A, Borodynko-Filas N, Kaźmińska K, Bartoszewski G, Hasiów-Jaroszewska B (2024) Viruses infecting Capsicum crops in Poland and molecular characterization of newly detected bell pepper alphaendornavirus (BPEV). <i>Crop Protection</i> 176:106478 DOI:10.1016/j.cropro.2023.106478</p> <p>Keller-Przybylkowicz S, Oskiera M, Liu X, Song L, Zhao L, Du X, Kruczynska D, Walencik A, Kowara N, Bartoszewski G (2024) Transcriptome analysis of white- and red-fleshed apple fruits uncovered novel genes related to the regulation of anthocyanin biosynthesis. <i>Int J Mol Sci</i> 25:1778 DOI:10.3390/ijms25031778</p>

Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	<p>Finished PhD thesis</p> <p>2021 K. Kaźmińska: Evaluation of the diversity of recombinant inbred lines and accessions of winter squash (<i>Cucurbita maxima</i>)</p> <p>2019 R. Słomnicka: Molecular and phenotypic evaluation of cucumber plants in response to <i>Pseudomonas syringae</i> pv. <i>lachrymans</i> infection awarded by the Faculty Council</p> <p>2017 T. Mróz: Structural analysis of line B mitochondrial genome and identification of differentially expressed genes in MSC mitochondrial mutants of cucumber – awarded by Faculty Council</p> <p>2015 M. Oskiera: Molecular identification and genetic diversity of <i>Trichoderma</i> strains potentially useful in biological plant protection – Distinction of Institute of Horticulture, Emil Chroboczek's Award</p> <p>2010 M. Czarny: Functional analysis of tomato genes involved in secondary metabolism and induced by potato cyst nematode</p> <p>Open Doctoral Works</p> <p>2022 – 2026 Bartosz Biernacik: "Mapping and molecular identification of determinate growth and dwarf genes in cucumber"</p>
Achievements in the area of projects/grants (in the last 5 years)	<p>Principal Investigator:</p> <p>2023-2024 grant InnoSeed - Development of innovative technologies for producing seeds of selected horticultural plant species in Polish conditions previously reproduced outside the Central European climatic zone and a model of cucumber variety for organic production" funded by EU Agricultural Fund for Rural Development</p> <p>2022-2026 grant "Identification of genes controlling growth habit in cucumber" in the framework of basic research for crop improvement, funded by the Ministry of Agriculture and Rural Development</p> <p>2021-2025 grant "Regeneration and valorization of Polish genetic resources of cucurbits" in the framework of Polish GenBank activities, funded by the Ministry of Agriculture and Rural Development</p>
Subject area of the research project for which the candidate student is being recruited	<p>Proposals of PhD thesis:</p> <p>Identification of genes controlling plant architecture in cucumber (subject for detailed discussion).</p> <p>Molecular genetics and genomics approaches will be used. Phenotyping and high-throughput genotyping will be applied to identify and characterize candidate genes. Molecular markers for plant improvement will be developed. Research expenses will be covered partially by projects awarded by the Polish Ministry of Agriculture and Rural Development project</p>
<p><u>Contact details:</u></p> <p>Institute</p> <p>E-mail address</p> <p>Telephone number</p>	<p>Department of Plant Genetics Breeding and Biotechnology Institute of Biology, Warsaw University of Life Sciences mailto:grzegorz_bartoszewski@sggw.edu.pl phone. +48 22 5932177</p>