**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** |
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| Discipline/ disciplines of science | biological sciences |
| Professional development (degrees and titles) in chronological order | 2018 – professor, plant genetics and breeding<br>2007 – habilitation, biotechnology<br>2000-2002 – postdoc, University of Wisconsin, Madison, USA<br>1997 – PhD in agriculture<br>1995 – Research Fellow, CPRO Wageningen, The Netherlands<br>1993 – MSc, plant genetics |
| Most important publications/patens over the last 3 years (maximum 10) | 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). Crop Protection 176:106478 DOI: 10.1016/j.cropro.2023.106478 DOI:10.1016/j.cropro.2023.106478<br><br>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. Int. J. Mol. Sci. 25:1778 DOI:10.3390/ijms25031778<br><br>Olechowska E, Słomnicka R, Kaźmińska K, Olczak-Woltman H, **Bartoszewski G** (2022) The genetic basis of cold tolerance in cucumber (*Cucumis sativus* L.) - the latest developments and perspectives. J. Appl. Genet 63:597–608 DOI:10.1007/s13353-022-00710-2<br><br>Słomnicka R, Olczak-Woltman H, Sobczak M, **Bartoszewski G** (2021) Transcriptome profiling of cucumber (*Cucumis sativus* L.) early response to *Pseudomonas syringae* pv. *lachrymans*. Int J Mol Sci 22:4192 DOI:10.3390/ ijms22084192<br><br>Dostatny DF, Korzeniewska A, **Bartoszewski G**, Rawski R, Kaźmińska K, Gelvonauskis B (2021) The evaluation and conservation of plant genetic resources collected in Lithuania. Agronomy 11:1586 DOI:10.3390/agronomy11081586 |
| Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order | **Finished PhD thesis:**<br>2021 K. Kaźmińska: Evaluation of the diversity of recombinant inbred lines and accessions of winter squash (*Cucurbita maxima*)<br>2019 R. Słomnicka: Molecular and phenotypic evaluation of cucumber plants in response to *Pseudomonas syringae* pv. *lachrymans* infection awarded by the Faculty Council<br>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 |

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| | 2015 M. Oskiera: Molecular identification and genetic diversity of *Trichoderma* strains potentially useful in biological plant protection – Distinction of Institute of Horticulture, Emil Chroboczek's Award<br>2010 M. Czarny: Functional analysis of tomato genes involved in secondary metabolism and induced by potato cyst nematode<br>**Open Doctoral Works:**<br>2022 – 2026 Bartosz Biernacik: "Molecular mapping and Identification of determinated and dwarf genes in cucumber"<br>2020 – 2024 Emilia Olechowska: Evaluation of tolerance to cold stress in cucumber and identification of cold stress response genes |
| Project/grants achievements (from the last 10 years) | **Principal Investigator:**<br>2023-2024 "InnoSeed - Development of innovative technologies for the production of 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<br>2021-2025 "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<br>2018-2021 "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<br>2015-2019 "Improving cucumber resistance to angular spot disease" in the framework of basic research for crop improvement, funded by the Ministry of Agriculture and Rural Development<br>2011-2015 "Dynamics of the cucumber transcriptome on the example of mitochondrial MSC mutants" funded by the Ministry of Science and Higher Education<br>2009-2014 "Polish *Trichoderma* strains in plant protection and organic waste management" in the frames of Innovative Economy Operational Programme of EU |
| Topic – research problem – for which the candidate supervisor seeks a doctoral student | **Proposals of PhD thesis:**<br>**Topic 1:** Identification of genes controlling growth architecture in cucumber (*Cucumis sativus* L.) (subject for detailed discussion).<br>**Topic 2:** Identification and molecular characterization of male sterility gene *ms8* in sweet pepper (*Capsicum annuum* L.).<br>Molecular genetics and genomics approaches will be used. High-throughput molecular mapping will be applied to identify and characterize candidate genes. Molecular markers for plant improvement will be developed. Research expenses will be covered by partially by InnoSeed PROW project and Ministry of Agriculture and Rural Development project |
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