Candidate supervisor's information summary form

maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: dr hab. Olga Kosakowska	
Discipline/ disciplines of science	AGRICULTURE AND HORTICULTURE
Professional development (degrees and titles) in chronological order	MSc degree (2001) PhD in agricultural sciences (2006) Postdoctoral degree (habilitation) in agricultural sciences in the field of horticulture (2022)
Most important publications/patens over the last 3 years (maximum 10)	The most important publications (**2020-2022**): 1. Koczkodaj, S., Przybył, J.L., **Kosakowska, O**., Węglarz, Z., Bączek, K.B. 2023. Intraspecific variability of stinging nettle (*Urtica dioica* L.). Molecules 28,1505.doi: 10.3390/molecules28031505, IF 4,927, MNiSW=100 pkt 2. Paduch-Cichal E., Mirzwa-Mróz, E., Wojciechowska, P., Bączek, K., Kosakowska, O., Węglarz, Z., Szyndel, M.S. 2023. Antiviral activity of selected essential oils against cucumber mosaic virus. Plants 12, 18. doi:10.3390/ plants12010018, IF 4,658, MNiSW=70 3. Bączek, K.B., **Kosakowska, O**., Boczkowska, M., Bolc, P., Chmielecki, R., Pióro-Jabrucka, E., Raj, K., Węglarz, Z. 2022. Intraspecific variability of wild-growing common valerian (*Valeriana officinalis* L.). Plants, 11, 3455. doi: 10.3390/plants11243455, IF 4,658, MNiSW=70 pkt 4. Węglarz Z., **Kosakowska O.**, Pióro-Jabrucka E., Przybył J.L., Gniewosz M. Kraśniewska K., Szyndel M.S., Costa R., Bączek K.B. 2022. Antioxidant and antibacterial activity of *Helichrysum italicum* (Roth) G. Don. from Central Europe. Pharmaceuticals 15, 735. doi: 10.3390/ph15060735, IF=5,863, MNiSW=100 pkt 5. **Kosakowska O**., Węglarz Z., Pióro-Jabrucka E., Przybył J., Kraśniewska K., Gniewosz M., Bączek K. 2021. Antioxidant and antibacterial activity of essential oils and hydroethanolic extracts of Greek oregano (*O. vulgare* L. subsp. *hirtum* (Link) Ietswaart) and common oregano (O. *vulgare* L. subsp. *vulgare*). Molecules 26, 988. doi: 10.3390/molecules26040988, IF=4,411, MNiSW=100 pkt 6. **Kosakowska O**., Węglarz Z., Bączek K. 2021. The effect of open field and foil tunel on yield and quality of the common thyme (*Thymus vulgaris* L.) in organic farming. Agronomy 11, 197. doi:10.3390/agronomy11020197, IF=3,417, MNiSW=100 pkt 7. Prasad S.K., Pradeep S., Shimavallu C., Kollur S.P., Syed A., Marraiki N., Egbuna C, Gaman M.A., **Kosakowska O**., Cho W.C., Patrick-Iwuanyanwu C.K.P., Ortega-Castro, J.O., Frau J., Flores-Holguín N., Glossman-Mitnik D. 2021. Evaluation of *Annona muricata* acetogenins as potential Anti-SARS-CoV-2 agents through computational approaches. Frontiers in Chemistry 8, 624716. doi:10.3389/fchem.2020.624716, IF=5,221 MNiSW=100 pkt 8. **Kosakowska O**., Bączek K., Przybył J., Pawełczak A., Rolewska K., Węglarz Z. 2020. Morphological and chemical traits as quality determinants of common thyme (*Thymus vulgaris* l.), on the example of 'Standard Winter' cultivar. Agronomy 10, 909. doi:10.3390/agronomy10060909, IF=3,417, MNiSW=100 pkt

	9. Węglarz Z., **Kosakowska O**., Przybył J., Pióro-Jabrucka E., Bączek K. 2020. The quality of Greek oregano (*O. vulgare* L. subsp. *hirtum* (Link) letswaart) and common oregano (*O. vulgare* L. subsp. *vulgare*) cultivated in the temperate climate of Central Europe. Foods 9, 1671. doi:10.3390/foods9111671, IF=4,350, MNiSW=70 pkt 10. Boczkowska M., Bączek K., **Kosakowska O**., Rucińska O., Podyma W., Węglarz Z. 2020. Genome-wide diversity analysis of *Valeriana offcinalis* L. using DArT-seq derived SNP markers. Agronomy 10, 1346. doi:10.3390/agronomy10091346, IF=3,417, MNiSW=100 pkt
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	Supervisor assistant of doctoral dissertation, defended in 2021 (supervisor of the thesis: dr hab. Katarzyna Bączek) Izabela Szymborska-Sandhu. Developmental and chemical characteristics of bastard balm (*Melittis melissophyllum* L.) in the conditions of its cultivation.
Project/grants achievements (from the last 10 years)	<u>Manager of 4 projects:</u> – 1 MRIRW project (2022) – 1 NCN project (Miniatura 3, 2020) – 2 projects in the frame of internal SGGW calls for young scientists (2011, 2012) <u>Contractor in the following projects:</u> – 1 NCBiR project (2007-2010 research and development project) – 1 PARP project (2018, research project) – 1 UE project (7th Frame Programme Regpot) – 1 KBN project (2005-2006, supervisor's project) – 2 implementation projects (KZL) commissioned by Herbapol Lublin – 13 projects commissioned by the Ministry of Agriculture and Rural Development (9 – in the field of organic farming, 1 -in the frame of biological progress in plant production, 3 - in the field of plant genetic resources protection) All above listed projects concern wild-growing and cultivated medicinal and aromatic plants.
Topic – research problem – for which the candidate supervisor seeks a doctoral student	Studies concerning the range of morphological, developmental and chemical variability of wild-growing and cultivated species of medicinal and aromatic plants, both native and foreign. Research will be focused on the impact of internal and external factors on the yield and quality of selected herbal raw materials, reflected in their chemical composition and biological activity. Studies will be carried out both on natural sites and in the cultivation. Chemical profile of examined raw materials will be determined by the usage of modern extraction and separation techniques. Undertaken investigations will be characterized by a scientific and practice value. Special attention will be paid on the usefulness of selected raw materials to apply in the phytopharmaceutical industry.
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