Summary Specification of Scientific Accomplishments of a Thesis Supervisor Candidate
maximum 2 pages - it should be a synthesis of the most important elements of accomplishments

Name and surname, degree, scientific title: **Małgorzata Kiełkiewicz-Szaniawska, prof. dr hab.**	
Scientific discipline/s	Agriculture and Horticulture
Professional development (scientific degrees and titles) chronologically	1981 – doctoral degree (PhD) in agricultural sciences in the scope of horticulture 2003 – habilitation degree in agricultural sciences in the scope of horticulture 2019 – the title of professor in agricultural sciences
Most important publications/ patents from the last 3 years (max. 10)	- Barczak-Brzyżek A.K., Kiełkiewicz M., Gawroński P., Kot K., Filipecki M., Karpińska B. 2017. Cross-talk between high light stress and plant defence to the two-spotted spider mite in Arabidopsis thaliana. Experimental and Apply Acarology 73: 177–189 - Barczak-Brzyżek A., Kiełkiewicz M., Górecka M., Kot K., Karpińska B., Filipecki M. 2017. Abscisic Acid Insensitive 4 transcription factor is an important player in the response of Arabidopsis thaliana to two-spotted spider mite (Tetranychus urticae) feeding. Experimental and Apply Acarology 73: 317–326 - Kiełkiewicz M., Barczak-Brzyżek A., Karpińska B., Filipecki M. 2019. Unravelling the Complexity of Plant Defense Induced by a Simultaneous and Sequential Mite and Aphid Infestation. International Journal of Molecular Sciences 20(4): 806 - Dancewicz K., Slazak B., Kiełkiewicz M., Kapusta M., Bohdanowicz J., Gabryś B. 2020. Behavioral and physiological effects of Viola spp. cyclotides on Myzus persicae (Sulz.). Journal of Insect Physiology 122 - Sady E.A., Kiełkiewicz M., Kozłowski M.W. 2020. The rose flea beetle (Luperomorpha xanthodera, Coleoptera: Chrysomelidae), an alien species in central Poland − from an episodic occurrence in an established population. Journal of Plant Protection Research 60 (1): 86-97 - Slazak B., Jędrzejska A., Badyra B., Sybilska A., Lewandowski M., Kozak M., Kapusta M., Shariatgorji R., Nilsson A., Andrén P.E., Göransson U., Kiełkiewicz M. 2022. The involvement of cyclotides in mutual interactions of violets and the two-spotted spider mite. Scientific Reports 12: 1914
Experience in work with PhD students (defended dissertations, initiated dissertation procedures), chronologically	Supervisor in the doctoral dissertation of: - MSc Monika Godzina-Sawczuk – defense of doctoral thesis - December 18, 2013; conferring a doctoral degree – January 8, 2014 - MSc Anna Dworak — defense of doctoral thesis – July 12, 2016; conferring a doctoral degree – September 28, 2016 - MSc Krzysztof Kołątaj – defense of doctoral thesis – January 12, 2023
Project/grant accomplishments	- Project: Antioxidant potential of maize in response to soil drought stress and pest infestation: similarities and differences (2010-2013)

(from the last 10 years)	funded by the Ministry of Education and Science – Project manager - Project: „Warsaw Plant Health Initiative" (akronim – WULS Plant Health) – founded by EU 7th Framework Programme FP7-REGPOT-2011-1-286093 (01.11.2011 – 31.10.2015) – Investigator in Work Package 2 (WP2): „Upgrade of Entomology Research Teams" and manager in „Improved Plant Resistance" package - Project: How does sweet violet (Viola odorata L.) fight pathogens and pests – are cyclotides a type of plant immune system? Funded by NCN SONATA 13 (2017/26/D/NZ8/00658) (02.07.2018-2020) - Investigator - Project: Exploiting the natural variability to identify the key genes for building the broad and durable resistance to mite pests funded by NCN OPUS 17 (2019/33/B/NZ9/01305) (18.02.2020-2023) - Investigator
Theme scope - research problem - for the solving of which the PhD student is sought	Arthropods, as vectors, play a crucial role in the spread of many viral diseases in plants. The process of virus transmission is conditioned by multi-layered interactions within the tri-trophic system of virus-vector-plant. These interactions include, among others, mechanisms of virus transmission, as well as manipulation of the host and the vector themselves. The stability of these interactions ensures the spread of viruses in the environment as long as one or more of the factors does not change, either due to evolutionary changes or external intervention in the system. While virus-vector-plant interactions have been extensively studied in insects for decades, a few studies regarding species as vectors exist. Eriophyoid mites (Acariformes: Eriophyoidea) are one of the smallest taxa of mites. These obligate phytophages feed on all parts of plants except for the roots. In addition to their direct harmfulness, mites are responsible for transmitting at least 30 described viruses, mainly belonging to the genus Emaravirus (family Fimoviridae, order Bunyavirales). Understanding the interactions between viruses, mites, and host plants can be crucial not only for deepening our knowledge of viral infections but also for developing effective protection strategies. The aim of the planned research will be to determine the impact of selected viruses on the development of populations of vectors belonging to the superfamily Eriophyoidea. The PhD student's task will be to answer whether viral infection of the host plant affects the biology of the vector and how changes occurring in the infected plant affect the development of the vector population. Within the scope of this research, a research system will be created that includes three species of eriophyoid mites that are vectors of viruses belonging to different taxonomic groups, and then the population growth rate and developmental and reproductive parameters of particular species will be determined on virus-infected and virus-free host plants.
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