Candidate supervisor's information summary form

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

Name and surname, degree, title: Katarzyna Michalska, PhD	
Discipline/ disciplines of science	agriculture/horticulture
Professional development (degrees and titles) in chronological order	2014 Habilitation. Agriculture/Horticulture, Faculty of Horticulture, Biotechnology and Landscape Architecture, Warsaw University of Life Sciences, 1997 PhD. Agriculture/ Horticulture, Faculty of Horticulture, Biotechnology and Landscape Architecture, Warsaw University of Life Sciences 1985 M.Sc., Faculty of Horticulture, Biotechnology and Landscape Architecture, Warsaw University of Life Sciences
Most important publications/patens over the last 3 years (maximum 10)	Michalska K., Studnicki M. 2021. What Could Arrest an Eriophyoid Mite on a Plant? The Case of *Aculops allotrichus* from the black locust tree. Insects 12: 1031. Michalska K., Studnicki M. 2021. Behavioural responses of females of the eriophyoid mite, *Aculops allotrichus*, to the presence of injured conspecifics. International Journal of Acarology 47: 41-50. (IF) Michalska, K., Tomczyk, A., Łotocka, B., Orzechowski S., Studnicki M. 2019. Oviposition by the vagrant eriophyoid mite *Aculops allotrichus* on leaves of black locust tree, *Robinia pseudoacacia*. Experimental and Applied Acarology 79: 1-19. (IF) Lux, S.A., Michalska, K., Wnuk, A., Palijczuk, D., Vogt, H., Hernik, T., Studnicki, M. 2017. Female age as a factor determining the patterns of tree canopy utilisation by the European cherry fruit fly, *Rhagoletis cerasi*. International Journal of Pest Management 63:371-381 (IF)
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	none
Project/grants achievements (from the last 10 years)	2011 –2014 Warsaw Plant Health Initiative. EC FP7 (286093. REGPOT-CT_2011-WULS Plant Health). Program participant 2006 - 2009 Economy of spermatophore production in two species of eriophyoid mites differing in the degree of dissociation between sexes. Polish Ministry of Science and Higher Education grant no 2PO4C 025 30. Project leader.

Topic – research problem – for which the candidate supervisor seeks a doctoral student	(1) The evaluation of differences in behavioural responses to signals of predation risk between males and females and other developmental stages of the two-spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae). The two-spotted spider mite is an important pest of many crop plants. The previous experiments have showed that both, the cues of the predatory mites of the Phytoseiidae family and the odours of injured conspecifics repel *T. urticae*, which in the future would enable to manipulate the pest behaviour within crops. So far, however, only female responses were examined. It is not known what are the behavioural consequences of the predation signals at the population level of this pest. For the purpose of the doctorate, the avoidance responses of females and males as well as larva and nymphs will be compared. The influence of food specialisation of predators (specialist / generalist) and the type of injured prey (sex, developmental stage of the spider mite, other herbivorous species) on the defensive reactions of adults and juveniles will be investigated. Also, the effect of the predation risk on sexual behaviours (guarding and copulation) and reproductive success of males and females will be examined. (2) Selected aspects of biology and ecology of the mite *Blattisocius mali* – potential predator in biological control of pests in greenhouse crops *Blattisocius mali* belongs to the family Blattisociidae, in which many species are predators preying upon nematodes and small arthropods. *Blattisocius mali* is regarded as an effective natural enemy of acarid mites and in several countries, it is recommended for biological control of those pests in granaries and storehouses. As yet, however, the biology of *B. mali* is poorly understood. The aim of this study is to estimate the factors, which may decide on the efficacy of this mite in the biological control of the mould mite and bulb mite, the two important acarid pests of greenhouse crops. For the purpose of the study, the method of *B. mali* mass-rearing will be developed. Also, the demographic parameters of *B. mali*, food preference, the ways of its dispersal in crops and interactions with other predatory arthropods commercially applied in glasshouses will be estimated.
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