

Candidate supervisor's information summary form

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

Name and surname, degree, title: Małgorzata Gieryńska, PhD, DSc	
Academic discipline/disciplines	Veterinary Sciences
Professional development (degrees and titles) in chronological order	2019 - DSc 1998 - PhD 1990 - MSc (specialization in microbiology)
Most important publications/ patents in the last 3 years (maximum 10)	- Gregorczyk-Zboroch K., Szulc-Dąbrowska L., Pruchniak P., Gieryńska M., Mielcarska M.B., Biernacka Z., Wyżewski Z., Lasocka I., Świtlik W., Szepietowska A., Kukier P., Kwiecień-Dębska A., Kłęk J. Modifications of Mitochondrial Network Morphology Affect the MAVS-Dependent Immune Response in L929 Murine Fibroblasts during Ectromelia Virus Infection Pathogens 2024, 13(9), 717; https://doi.org/10.3390/pathogens13090717 - Biernacka Z., Gregorczyk-Zboroch K., Lasocka I., Ostrowska A., Struzik J., Gieryńska M., Toka F.N., Szulc-Dąbrowska L. Ectromelia Virus Affects the Formation and Spatial Organization of Adhesive Structures in Murine Dendritic Cells In Vitro. Int. J. Mol. Sci. 2024, 25(1): 558; doi: 10.3390/ijms25010558 - Szulc-Dąbrowska L., Biernacka Z., Koper M., Struzik J., Gieryńska M., Schollenberger A., Lasocka I., Toka F.N. Differential Activation of Splenic cDC1 and cDC2 Cell Subsets following Poxvirus Infection of BALB/c and C57BL/6 Mice. Cells, 2024, 13: 13; doi.org/10.3390/cells13010013 - Gieryńska M., Szulc-Dąbrowska L., Struzik J., Gregorczyk-Zboroch K.P., Mielcarska M.B., Toka F.N., Schollenberger A., Biernacka Z. Orthopoxvirus Zoonoses—Do We Still Remember and Are Ready to Fight? Pathogens, 2023, 12: 363; doi: 10.3390/pathogens12030363 - Gieryńska M., Szulc-Dąbrowska L., Struzik J., Mielcarska M.B., Gregorczyk-Zboroch K.P. Integrity of the Intestinal Barrier: The Involvement of Epithelial Cells and Microbiota-A Mutual Relationship. Animals (Basel), 2022, 12: 145; doi: 10.3390/ani12020145 - Mielcarska M.B., Gregorczyk-Zboroch K.P., Szulc-Dąbrowska L., Bossowska-Nowicka M., Wyżewski Z., Cymerys J., Chodkowski M., Kielbik P., Godlewski M., Gieryńska M., Toka F.N. Participation of Endosomes in Toll-Like Receptor 3 Transportation Pathway in Murine Astrocytes. Front. Cell. Neurosci., 2020, 17: 14544612; doi: 10.3389/fncel.2020.544612. eCollection 2020 - Bossowska-Nowicka M., Mielcarska M.B., Struzik J., Jackowska-Tracz A., Tracz M., Gregorczyk-Zboroch K.P.,

	Gieryńska M., Toka F.N. Deficiency of Selected Cathepsins Does Not Affect the Inhibitory Action of ECTV on Immune Properties of Dendritic Cells. <i>Immunol. Invest.</i>, 2020, 49(3): 232-248 doi: 10.1080/08820139.2019.1631843 - Struzik J., Szulc-Dąbrowska L., Mielcarska M.B., Bossowska-Nowicka M., Koper M., Gieryńska M. First Insight into the Modulation of Noncanonical NF-κB Signaling Components by Poxviruses in Established Immune-Derived Cell Lines: An In Vitro Model of Ectromelia Virus Infection. <i>Pathogens</i>, 202, 9(10): 814; doi: 10.3390/pathogens9100814
Experience in working with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	- Assistant supervisor of the doctoral thesis of Matylda Mielcarska; defense of the doctoral thesis 2021 - Supervisor of the doctoral thesis of Pola Pruchniak; Doctoral School WULS, 2024-2028
Achievements in the area of projects/grants (in the last 5 years)	-
Subject area of the research project for which the candidate student is being recruited	The studies will aim to evaluate how selected bacteria from the <i>Staphylococcus intermedius</i> group (SIG), including <i>S. intermedius</i>, <i>S. pseudintermedius</i>, and <i>S. delphini</i>, affect intracellular signaling pathways and mitochondrial activity of innate immune cells using an in vitro model. The studies will be conducted using a semi-continuous canine keratinocyte cell line and an established mouse macrophage cell line, RAW 264.7, which will be stimulated with specific bacterial species belonging to the SIG; the techniques used include fluorescence and confocal microscopy, Real-Time PCR, Western blot, ELISA, flow cytometry. The invasiveness of selected SIG strains will be assessed using routine microbiological techniques, and the minimal multiplicity of infection (MOI_{min}) required to induce cells of both lines will be evaluated.
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