Name and surname:	**Michał Dzięcioł**
Academic Degree:	dr hab. (DSc.)
Institute/Department:	Department of Reproduction and Clinic for Farm Animals
e-mail address:	michal.dzieciol@upwr.edu.pl
ORCID:	https://orcid.org/0000-0002-5063-4306
UPWr Base of Knowledge - link:	https://bazawiedzy.upwr.edu.pl/info.seam?id=UPWr435e1863f2bd414f821251ac0a5f66d8
Researchgate:	https://www.researchgate.net/profile/Michal-Dzieciol
Personal website / Working group website:	
Participation in projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	1.System of mutual relationship DO: Detection and identification of disorders in the psychophysical condition of cows using multi-parameter analysis and algorithms based on artificial neural networks PI 2. What does a viral infection smell like? Volatile analysis organic compounds and their detection possibilities cell line models and mouse models. RF 3.Development of innovative medicinal preparations based on cabbage extract as an innovative preparation in the treatment of inflammation of the udder and hooves of dairy cow PI 4.Research on the possibility of applying the neuromodulation technique in veterinary practice using the Alpha Stim apparatus, in the treatment of behavioral disorders and as a non-pharmacological method of treating pain in animals. PI 5.Research on the possibility of using chemical and semiochemical volatile substances in the modulation of human behavior PI 6. Mechanisms of semiochemical communication in canines in the context of sexual behavior: the reserch with the use of the domestic dog (Canis familiaris) as a model species. RF
Do you plan to engage support of second supervisor or auxiliary supervisor?	YES
	Auxiliary supervisor (from other discipline, Polish or international research unit)
Name and surname:	Piotr Kupczyk
Academic Degree:	Dr.
Faculty, Institute/Department:	Division of General and Experimental Pathology, Faculty of Medicine Wroclaw Medical University
e-mail address:	piotr.kupczyk@umw.edu.pl
ORCID:	https://orcid.org/0000-0002-1264-7050

UPWr Base of Knowledge - link or most important publications from last 3 year (JCR) / patents from last 3 years (maximum 5):	Kupczyk, P., Rykala, M., Serek, P., Pawlak, A., Slowikowski, B., Holysz, M., ... & Niedzwiedz, A. (2022). The cannabinoid receptors system in horses: Tissue distribution and cellular identification in skin. Journal of Veterinary Internal Medicine, 36(4), 1508-1524. PARP1 as a marker of an aggressive clinical phenotype in cutaneous melanoma-a clinical and an in vitro study Kupczyk Piotr, Simiczyjew Aleksandra, Marczuk Jakub [et al.], Cells, 2021, vol. 10, no. 2, pp. art.286 [21 s.]. DOI:10.3390/cells10020286 The impact of curcumin on the inflammatory profile of SW982 cells in a rheumatoid arthritis model Więcek Kamil, Kupczyk Piotr, Chodaczek Grzegorz [et al.], Journal of Immunology Research, 2022, vol. 2022, pp. art.1208970 [10 s.]. DOI:10.1155/2022/1208970
Researchgate:	
Personal website / Working group website:	
Participation projects in last 5 years (chronological; with distinction into PI (kierownik) and RF (wykonawca)):	Analysis of the effectiveness of glioblastoma immunotherapy using gamma-delta T cells [2019/35/B/NZ6/03748] Project leader at UMW: Paweł Tabakow, start date 28-07-2020, end date 27-07-2024, in run
PhD topic:	Analysis of the expression of cannabinoid receptors in the reproductive system and in mamary tumors of domestic cats in different phases of the sexual cycle.
Research discipline in Doctoral School:	Veterinary Science

Short description of the research problem to be solved in the PhD (minimum 1000 characters):	The endocannabinoid system (ECS) is a widespread neuromodulatory network involved in the developing central nervous system as well as playing a major role in tuning many physiological processes. Moreover the endocannabinoid system (ECS) is an evolutionarily conserved master system deeply involved in the central and local control of reproductive functions in both sexes what was evaluated in various species but was not examined in domestic cat yet. Cannabinoid receptors (CB1 and CB2) belong to endocannabinoid system (ECS), which is also composed from endocannabinoids and the enzymatic systems involved in their biosynthesis and degradation. The nucleotide sequences of CB1 and CB2 receptors, despite their different anatomical distribution between humans and animals are strongly conserved in mammals and belong to the G-protein-coupled receptor (GPCRs) superfamily. The proposed project will be devoted to the issue of assessing the expression of cannabinoid receptors (CBR 1,2) in the reproductive organs of female (ovary and uterus) and males (testes) of the domestic cat, in connection with the age and (in the case of females) during various physiological (anoestrus, estrus, pregnancy) or during pathological conditions (pyometra, endometris). Moreover, taking into account reports presenting the results of studies on other species, we will compare the expression of CBR 1,2 in benign and malignant tumors in female cat. Although the expression and function of CB1 and 2 was investigated in cats in the context of various systems and tissues, it was no yet evaluated in the context of reproductive organs in this species. There are lacking also information about the expression of the CB1 and CB 2 in the tumors of the feline mammary glands what could be interested in the context of that the overexpression of that kind of receptors in more aggressive tumors were noted in humans.
Professional skills for PhD candidate (e.g. master program, specializations, softwares, language, analytical techniques, minimum 500 characters):	Veterinary diploma or from related biological or medical fields, clinical experience (especially in the field of animal reproduction / Routine procedures such as sterilization and castration/), experience in working in a laboratory and experience in scientific work is welcome. The previous participation in research projects, authorship of at least one published scientific article will be an additional advantage. Mandatory knowledge of English (at least level B2). Fluent ability to use tools such as Word, Excel, Powerpoint etc.
a) Project title:	0
b) Agreement number:	0 the project will not require the consent of the ethics committee in connection with the planned research on tissues and not on living organisms
c) Number of months in the project to support PhD student (in months; starting from 1st of October 2024):	0
Project website:	