

PROFILE FOR INSTITUTE WEBSITE

Current photo in graphic file e.g. 2024, 2023.	
Name and surname, Title	Marta Marlena Ziętek, PhD
Position	Assistant professor
Hirsch Index and Number of citations (according to Scopus) on the day of completing the form	H=3 Citations=21
Research areas (in points, min. 200 characters, max. 500 characters)	– Role of the placenta in the development and functioning of the nervous system – Cellular and molecular mechanisms underlying neurodevelopmental disorders – Animal behavioral models for studying social and cognitive deficits – Stem cell technologies
Total number of completed research projects; currently implemented research projects (title and number) and selected max. 3 completed projects (title and number) from the newest ones, i.e. 2024, 2023, 2022...	Currently implemented research projects: – Principal Investigator in NCN Miniatura nr. 2024/08/X/NZ3/01557, “Investigating in vitro neuronal differentiation and maturation of embryonic stem cells in a mouse model of idiopathic autism” – Post-doc in NCN OPUS nr. 2020/39/B/NZ4/02105, “ Inter-strain chimeric mice to study the role of the placenta in the pathogenesis of neurodevelopmental disorders” Completed research projects: – Investigator, Scholarship holder in NCN OPUS nr. 2017/27/B/NZ9/02086, “Derivation and identification of pluripotency traits of induced pluripotent stem cells from <i>Bisonbonasus bonasus</i>” – Investigator in NCN SONATA nr. 2014/15/D/NZ4/04274, “Influences of maternal and genetic factors on post-natal behaviors and placental transcriptome in mouse models of autism”
Total number of publications; ORCID (number and hyperlink to the profile); SCOPUS (number and hyperlink to the profile); indicate selected publications (max. 5)	– Total number of publications – 10 – ORCID 0000-0001-7165-1386 https://orcid.org/0000-0001-7165-1386 – SCOPUS ID: 55586541100 https://www.scopus.com/authid/detail.uri?authorId=55586541100 Selected publications: – Ziętek, M.M.; Bihorac, A.; Wenta-Muchalska, E.; Duszewska, A.M.; Olech, W.; Sampino, S.; Bernat, A. Wisent Somatic Cells Resist Reprogramming by the PiggyBac Transposon System: A Case Study Highlighting Methodological and Conservation Hurdles. <i>Int. J. Mol. Sci.</i> 2025, 26, 4327. doi: 10.3390/ijms26094327 – Ziętek MM, Jaszczuk A, Stankiewicz AM, Sampino S. Prenatal gene-environment interactions mediate the impact of advanced maternal age on mouse offspring behavior. <i>Sci Rep.</i> 2024 Dec 30;14(1):31733. doi: 10.1038/s41598-024-82070-x

	– Ziętek MM, Sampino S. Embryonic factors mediate the maternal age-induced programming of offspring postnatal behavior in mice†. Biol Reprod. 2023 Jul 11;109(1):45-52. doi: 10.1093/biolre/ioad044 – Zacchini F, Sampino S, Ziętek M, Chan A. Delayed parenthood and its influence on offspring health: what have we learned from the mouse model†. Biol Reprod. 2022 Jan 13;106(1):58-65. doi: 10.1093/biolre/ioab202 – Ziętek M, Barłowska K, Wijas B, Szablisty E, Atanasov AG, Modliński JA, Świergiel AH, Sampino S. Preconceptional Resveratrol Supplementation Partially Counteracts Age-Related Reproductive Complications in C57BL/6J Female Mice. Molecules. 2021 Mar 30;26(7):1934. doi: 10.3390/molecules26071934
Total number of patents; selected patents (max. 2) and a hyperlink to personal patent achievements (UP RP), on the day of completing the form	–
Selected scientific achievements from the newest, i.e. 2023, 2022, 2021... (in points, min. 800 characters, max. 1000 characters)	– In recent years, I have investigated the impact of genetic and maternal etiological factors contributing to autism-like behaviors in a mouse model of idiopathic autism (BTBR strain) and in a model of advanced maternal age (BTBR and C57BL/6 strains). The results demonstrate that ASD-like behaviors can be either mitigated or exacerbated by maternal age, depending on the offspring's genetic background and sex. These effects are primarily mediated by the embryonic predisposition to develop ASD-like traits, rather than by the suboptimal maternal environment provided during pregnancy by aged or BTBR females.
Number and list of defended PhD students from the latest, i.e. 2024, 2023, 2022...	–
Organizational activities, dissemination of knowledge and others (in points, min. 300 characters, max. 1000 characters)	– The popular science lecture for high school students from Gdańsk/Gdynia in polish