PROFILE FOR INSTITUTE WEBSITE

Current photo in graphic file e.g. 2024, 2023.	
Name and surname, Title	Dawid Winiarczyk, dr inż.
Position	Assistant Professor
Hirsch Index and Number of citations (according to Scopus) on the day of completing the form	h-index 4 Citations 67
Research areas (in points, min. 200 characters, max. 500 characters)	I am interested in general biotechnology of pre-implantation embryos in mammals, mainly mice. My research uses advanced micromanipulation techniques (SCNT, ICSI, electroporation, creating chimeras using various methods) and the achievements of modern molecular biology (CRISPR, RNAi). My research topics include, among others: regulation of transcription factors in early embryonic development, as well as in the process of cancer and neurological diseases.
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…	Total number of completed research projects: 1 Title: Regulation of apoptosis in the oocyte and preimplantation of the mouse embryo at the transcript level Registration number: KNOW/IGHZ/RBP/WEW/2016/10 Funding source(s): Leading National Research Center "Healthy Animals–Safe Food" Principal Investigator: Dawid Winiarczyk Start date: 2017-01-18 Completion date: 2018-06-30 Involved in projects 1. Co-investigator in Horizon 2020 "BovReg" project - Work Package 6 - Functional validation of regulatory variants, finished 2024 2. Post-doc in NCN OPUS grant “Effect of Transcriptional Network Disruption on Liver Cancer Development: Functional Analysis of HNF4A Mutation Using the CRISPR / Cas9 System”, finished 2024 3. Co-investigator in NCN OPUS grant “Protaminization of somatic cell nuclei as a model of nuclear reprogramming in somatic cloning”, ongoing 4. Co-investigator in SONATA NCN grant „Deregulated expression of mitochondrial proteins affects development of cloned embryos: a rescue strategy”, finished in 2021 5. Involved in OPUS NCN grant "Inter-strain chimeric mice to study the role of the placenta in the pathogenesis of neurodevelopmental disorders", ongoing 6. NCN Preludium BIS Impact of lipid metabolism on histone acetylation during mouse embryo development. ongoing

	7. Involved in SONATA BIS NCN grant ”Mechanism of trophoblast differentiation in rabbit embryo”, ongoing 8. Involved in SONATA NCN grant “Preimplantation embryonic development and early lineages in rabbit embryo”, finished in 2017 9. Co-investigator in PRELUDIUM BIS „Analiza molekularnych mechanizmów akumulacji fosforylowanej α-synukleiny i ubikwitynowanych białek spowodowanej nokautem genu NFE2L1 w neuronach dopaminergicznych”
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: 8 ORCID: https://orcid.org/0000-0003-3562-7930 SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=57194478582 Marta Czernik; Dawid Winiarczyk; Silvestre Sampino ; Pawel Greda ; Salvatore Parillo ; Jacek Andrzej Modliński; Pasqualino Loi, Mitochondrial function and intracellular distribution is severely affected in in vitro cultured mouse embryos (2022), artykuł, Scientific Reports, ISSN: 2045-2322 Effi Haque, Aamir Salam Teeli, Dawid Winiarczyk, Masahiko Taguchi, Shun Sakuraba, Hidetoshi Kono, Paweł Leszczyński, Mariusz Pierzchała and Hiroaki Taniguchi, HNF1A POU Domain Mutations Found in Japanese Liver Cancer Patients Cause Downregulation of HNF4A Promoter Activity with Possible Disruption in Transcription Networks (2022), artykuł, Genes, Genes 2022, 13(3), 413 Dawid Winiarczyk, Anna Piliszek, Silvestre Sampino, Marek Lukaszewicz, and Jacek Andrzej Modliński, Embryo structure reorganisation reduces the probability of apoptosis in preimplantation mouse embryos (2021), artykuł, Reproduction, Fertility and Development, 33(12), 725-735 Aamir Salam Teeli ,Kamila Łuczyńska ,Effi Haque ,Mohmmad Abrar Gayas, Dawid Winiarczyk and Hiroaki Taniguchi, D isruption of Tumor Suppressors HNF4α /HNF1α Causes Tumorigenesis in Liver (2021), artykuł, Cancers, 13(21), 5357 Magdalena Kotlarska, Dawid Winiarczyk, Wiesława Florek, Marta Ziętek, Jolanta Pęczkowicz-Szyszka, Adrian Mateusz Stankiewicz, Rafał Radosław Starzyński, Roberta Arena, Gaspare Drago, Silvestre Sampino and Jacek Andrzej Modliński, Blastomere removal affects homeostatic control leading to obesity in male mouse offspring (2021), artykuł, Reproduction, Volume/Issue: Vol. 161, issue 1
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)	I was co-investigator in Horizon 2020 "BovReg" project - Work Package 6 - Functional validation of regulatory variants, finished in 2024 My research concerned the impact of changes to the organization of the mouse embryo structure on the incidence of apoptosis and the number of apoptotic cells at various stages of preimplantation development. Our results showed that manipulations did not have an impact on both the frequency of apoptosis and the number of apoptotic cells in the preimplantation mouse embryo, but that the stage of embryo development and the localization of cells in the appropriate embryonic cell lineage (ICM or TE) had the greatest influence on the probability of apoptosis. In none of the experimental groups (nor in the control) apoptosis was observed before cavitation occurred, however, not enough research has been done in the field to explain the apoptosis resistance period in preimplantation embryos. We publish this research in 2021
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)	Conducting classes for PhD students in the field of molecular biology and animal biotechnology Guiding and co-guiding interns and apprentices at ZED