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# Joanna Najmucha

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## EDUCATION

- Since 2015** PhD STUDIES  
Department of Mechanisms of Hormone Action  
Institute of Animal Reproduction and Food Research of Polish  
Academy of Sciences in Olsztyn
- 2013 – 2015** MASTER DEGREE  
University of Warmia and Mazury in Olsztyn  
Faculty of Biology and Biotechnology  
Field of study: **Biotechnology**  
Specialization: **Molecular Biotechnology of Animals**  
Thesis: *Identification of miR-125b and miR-26a in extracellular vesicles present in the uterine lumen during pregnancy of the domestic pig (*Sus scrofa domestica*)*
- 2010 – 2013** BACHELOR DEGREE  
University of Warmia and Mazury in Olsztyn  
Faculty of Biology and Biotechnology  
Field of study: **Biotechnology**  
Thesis: *Expression of miR-125b in the porcine embryos during early pregnancy.*

## RESEARCH PROJECTS

- Since 2018** *Extracellular vesicles as an element of maternal-embryo communication during early pregnancy in pig – impact of carried miRNA on recipient cells;*  
Role: **leader**; Funding: NCN
- 2015 – 2018** *Autocrine, juxtacrine and paracrine actions of miRNAs in early stages of pregnancy in pigs*  
Role: participant; Funding: NCN
- 2014 – 2016** *Embryo/endometrium exosomes as a new component of embryo-maternal interaction in pig*  
Role: **leader**; Funding: MS&HE
- 2013 – 2014** *Global analysis of protein expression level regulated by pregnancy-specific microRNA in pig's endometrial cells in vitro*  
Role: participant; Funding NCN
- 2012 – 2013** *Identification of miRNAs involved in embryo-maternal communication during early pregnancy in pig*  
Role: participant; Funding: NCN

## INTERSHIPS

**01.2018 – 02.2018**  
**11.2016 – 12.2016**  
**10.2015 – 12.2015**

Department of Entomology in The Robert H. Smith Faculty of Agriculture, Food and Environment at The Hebrew University of Jerusalem in Rehovot, Israel  
Prof. Yael Heifetz

**04.2018 (1 week)**

Laboratory of Experimental Medicine  
Centre of New Technologies  
Warsaw, Poland  
Prof. Dominika Nowis

**06.2014 – 07.2014**

Project: Nutrition and ambient temperature during early development can reduce susceptibility to obesity  
Institute of Animal Reproduction and Food Research,  
Polish Academy of Sciences  
Prof. Leslie P. Kozak

## SELECTED CONFERENCES

**8th Congress of the Society of Reproductive Biology,**  
Poland 2017

Effect of miR-125b on the expression of selected target genes in porcine trophoblast cells; Najmula J, Nitkiewicz A, Kaczmarek MM; oral

**The Non – Coding Genome,**  
Germany 2017

Extracellular miRNAs – important players of embryo-maternal communication; Najmula J, Reliszko ZP, Myszczyński K, Nitkiewicz A, Kaczmarek MM; poster selected for a flash talk

**Fourth World Congress of Reproductive Biology,**  
Japan 2017

microRNAs transported via extracellular vesicles – important element of early embryo-maternal molecular cross-talk; Najmula J, Reliszko ZP, Kaczmarek MM; poster

**18th International Congress on Animal Reproduction,**  
France 2016

Extracellular vesicles: microscopic characterization of the new way of maternal-embryo communication in pigs; Najmula J, Reliszko ZP, Heifetz Y, Kaczmarek MM; poster

Large-scale analysis of protein expression changes evoked by miR-26a and miR-125b in luminal epithelium of pregnant porcine uterus; Kaczmarek MM, Najmula J, Krawczyński K, Zabielski P; oral

**Extracellular Vesicles: friends and foes,**  
Israel 2016

microRNA cargo of extracellular vesicles isolated from uterine cavity during early pregnancy; Najmula J, Reliszko ZP, Heifetz Y, Kaczmarek MM; poster

## PUBLICATIONS

Krawczynski K, **Najmula J**, Bauersachs S, Kaczmarek MM. *MicroRNAome of porcine conceptuses and trophoblasts: expression profile of microRNAs and their potential to regulate genes crucial for establishment of pregnancy*. Biol Reprod. 2015 Jan;92(1):21

Kaczmarek MM, Krawczynski K, **Najmula J**, Reliszko ZP, Sikora M, Gajewski Z. *Differential expression of genes linked to the leukemia inhibitor factor signaling pathway during the estrus cycle and early pregnancy in the porcine endometrium*. Reprod Biol. 2014 Dec;14(4):293-7

## ACHIEVEMENTS

**Trainee Travel Award** from Society for the Study of Reproduction to attend the Annual Meeting in San Jose, USA, 2019

Scholarship **for the best PhD students** in Institute of Animal Reproduction and Food Research PAS in academic years 2015/2016, 2017/2018

Award from Dean of The Biology and Biotechnology Faculty **for the best alumnus** at the University of Warmia and Mazury (UWM; 2015)

**Dissertation prize** from Dean of The Biology and Biotechnology Faculty at UWM (2015)

Minister of Science and Higher Education's scholarship **for outstanding achievements** in the academic year 2014/2015

UWM Rector's Scholarship **for the best students** in the academic year 2014/2015

## SCIENTIFIC SOCIETIES AND STUDENT ORGANIZATIONS MEMBERSHIPS

Society for the Study of Reproduction (USA; Trainee member since 2019)

RNA Club Warsaw (Poland, from 2018)

Society for Biology of Reproduction (Poland; from 2017)

Graduate Student Council in Institute of Animal Reproduction and Food Research of Polish Academy of Sciences (from 2015)

Students Scientific Association of Biotechnology in University of Warmia and Mazury in Olsztyn (2013 – 2015)

## VOLUNTEER SERVICE DURING CONFERENCES

VIII Conference of the Society for Biology of Reproduction (Olsztyn, Poland; 2017)

Polish Scientific Network (Warsaw, Poland; 2015)

Forge for Young Talents The Polish Young Academy (Warsaw, Poland; 2015)- **Organizer**

## SELECTED COURSES, WORKSHOPS AND SEMINAR ATTENDED

TopMinds training and mentoring program, Falenty, 01 – 06.2019

Innovative solutions for mammalian cell culture, Olsztyn, 08.05.2019

Practical use of statistics in empirical research planning and results developing in Statistica – methods of variance and regression analysis, Olsztyn, 4 – 5.12.2017

Fast live-cell imaging and advanced methods of image analysis, Olsztyn, 24 – 25.11.2016

Extracellular Vesicles: from Biology to Biomedical Applications, EMBL Germany, 19 – 24.09.2016

Advanced fluorescence microscopy, Olsztyn, 19 – 20.04.2016

## POPULARIZATION OF SCIENCE

European Researchers' Night – FUSION NIGHT (Olsztyn, Poland; 2014 – 2018)

Picnic of Polish Academy of Sciences "SCIENCE is ART!" (Olsztyn, Poland; 2017)

"Flying Science Cafes" organised by The Academy of Young Scholars of the Polish Academy of Sciences in (Olsztyn, Warsaw, Poland; 2016)