
KAROLINA PIOTROWSKA-NITSCHKE

Work

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Nationality – Polish

Date of birth – 03.05.69

FIELD

Research Associate, Embryology

EDUCATION

Ph.D. Experimental Embryology. Polish Academy of Sciences Institute of Genetics and Animal Breeding, Jastrzebiec. May 1999. Dissertation: Multiple generational cloning of rabbit embryos. Advisor: Prof. Jacek A. Modlinski

Diploma, Animal Breeding. Institute of Genetics and Methods of Animal Development, Warminsko-Mazurski University in Olsztyn. March 1994. Advisor: Prof. Roman Bochno

RESEARCH EXPERIENCE

Marie Curie individual fellowship, 2002 - August 2004

The Wellcome Trust/Cancer Research UK Institute of Cancer and Developmental Biology, University of Cambridge, Department of Genetics.
Supervisor: Dr. Magdalena Zernicka-Goetz

Research Associate, 2000-2001

The Wellcome Trust/CR UK Institute of Cancer and Developmental Biology, University of Cambridge, Department of Genetics.
Supervisor: Dr. Magdalena Zernicka-Goetz

Postdoctoral Fellow, 1999

Department of Experimental Embryology. Polish Academy of Sciences Institute of Genetics and Animal Breeding, Jastrzebiec

Research Assistant, 1994

Institute of Genetics and Methods of Animal Development. Warminsko-Mazurski University in Olsztyn

PUBLICATIONS

- Gray, D., Plusa, B., Piotrowska, K., Tom, B. and Zernicka-Goetz, M. (in press).
First cleavage of the mouse embryo responds to egg geometry that reflects the position of sperm entry.
Current Biol.
- Wang, Q.T., Piotrowska, K., Ciemerych, M.A., Milenkovic, L., Scott, M.P., Davis, R.W. and Zernicka-Goetz, M.
A genome-wide study of gene activity reveals developmental signaling pathways in the preimplantation mouse embryo.
Developmental Cell 2004 Jan: 6, 133-144.
- Piotrowska K., Zernicka-Goetz M.
Early patterning of the mouse embryo – contributions of sperm and egg.
Development. 2002 Dec:129(24): 5803-13.
- Plusa B., Grabarek J.B., Piotrowska K., Glover D.M, Zernicka-Goetz M.
Site of the previous meiotic division defines cleavage orientation in the mouse embryo.
Nat Cell Biol. 2002 Oct:4(10):811-5.
- Plusa B., Piotrowska K., Zernicka-Goetz M.
Sperm entry position provides a surface marker for the first cleavage plane of the mouse zygote.
Genesis. 2002 Mar;32(3):193-8.
- Piotrowska K., Wianny F., Pedersen R.A., Zernicka-Goetz M.
Blastomeres arising from the first cleavage division have distinguishable fates in normal mouse development.
Development. 2001 Oct;128(19):3739-48.
- Piotrowska K., Zernicka-Goetz M.
Role for sperm in spatial patterning of the early mouse embryo.
Nature. 2001 Jan 25;409(6819):517-21.
- Piotrowska K., Modlinski J.A., Korwin-Kossakowski M., Karasiewicz J.
Effects of preactivation of ooplasts or synchronization of blastomere nuclei in G1 on preimplantation development of rabbit serial nuclear transfer embryos.
Biol Reprod. 2000 Sep;63(3):677-82.

GRANTS RECEIVED

Marie Curie individual fellowship *Early developmental cues and pattern formation in the mouse embryo* . Awarded by the European Commission in Brussels June 2001.

Grant supported by the Polish Committee for Scientific Research *Multiple generational cloning of rabbit embryos by serial nuclear transfer.* January 1996.

HONORS

Doctoral dissertation awarded by the resolution of the Scientific Council of the Institute of Genetics and Animal Breeding Polish Academy of Science. May 1999.
Prize of Prof. Wladyslaw Bielanski decreed by the Polish Society of Biology of Reproduction. September 2002.

RELEVANT SCIENTIFIC TECHNIQUES AND SKILLS ACQUIRED

Mammalian pre- and postimplantation embryo handling

Embryo culture

Cell culture

Micromanipulation

Cloning by nuclear transfer techniques

Microinjection

Cell fusion

Embryo transfer

IVF

Immunostaining

Confocal and fluorescence microscopy

Transmission electron microscopy

Real-time imaging (Axiovision, Openlab software) and image analysis (Imaris software).