

Curriculum Vitae

Honglu Diao, Ph.D student

Birth date and place: December 8, 1976, Harbin, Heilongjiang Province, China

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EDUCATION

Sept. 2003 to present: PhD student, College of Life Science, Northeast Agricultural University, Major: Embryo development and implantation

Supervisor: Professor Zeng-Ming Yang (SSR Membership)

Sept. 2000 to June 2003: Master student, College of Life Science, Northeast Agricultural University, Major: Embryo development and implantation

Supervisor: Professor Zeng-Ming Yang

Sept. 1996 to June 2000: Bachelor of Science, College of Life Sciences, Northeast Agricultural University Major: Biotechnology.

TECHNICAL SKILLS: Molecular cloning, RT-PCR, in situ hybridization, immunohistochemistry, western blot, northern blot, embryo culture and cell culture, transfection.

Research Experience:

1999-2000 (1) Calcitonin immunostaining in monkey uterus during menstrual cycle and early pregnancy.

(2) Basigin expression and hormonal regulation in the rat uterus during the peri-implantation period.

2000-2003 (1) Signal transducer and activator of transcription 3 (Stat3) , in rat and mouse implantation and decidualization.

(2) Peroxisome proliferator-activated receptor delta (PPARdelta) in rat implantation and decidualization.

(3) Cyclooxygenases and prostaglandin E synthases in the endometrium of the rhesus monkey during the menstrual cycle.

(4) EP2 in rat uterus during early pregnancy.

2003-2006 (1) Nimesulide (COX-2 inhibitor) effect on rat ovulation implantation and decidualization.

(2) Prostaglandin E synthases in rat embryo implantation and decidualization.

(3) Prostaglandin E synthases in mouse ovary during sexual maturation and luteal development

(4) Effect of gonadotropins on mouse implantation and decidualization.

(5) Ndrgr1 in mouse implantation and decidualization.

(6) Androgen activity and signal transduction in mouse embryo implantation and decidualization.

PUBLICATIONS

Papers:

1. Sun T, Deng WB, **Diao HL**, Ni H, Bai YY, Ma XH, Xu LB, Yang ZM. Differential expression and regulation of prostaglandin E synthases in mouse ovary during sexual maturation and luteal development. *Journal of Endocrinology*, 2006; 189(1):89-101
2. Cong J, **Diao HL**, Zhao YC, Ni H, Yan YQ, Yang ZM. Differential expression of microsomal prostaglandin E synthase in rat uterus during embryo implantation and decidualization. *Reproduction*. 2006, 131(1):139-151
3. Tan HN, Liu Y, **Diao HL**, Yang ZM. Cyclooxygenases and prostaglandin E synthases in preimplantation mouse embryos. *Zygote*, 2005; 13(2):103-108.
4. Shi JJ, Ma XH, **Diao HL**, Ni H, Xu LB, Zhu H, Yang ZM. Differential expression of prostaglandin E receptor subtype EP2 in rat uterus during early pregnancy. *Histol Histopathol*. 2005; 20(4):1021-1028
5. Sun T, Li SJ, **Diao HL**, Teng CB, Wang HB, Yang ZM. Cyclooxygenases and prostaglandin E synthases in the endometrium of the rhesus monkey during the menstrual cycle. *Reproduction*, 2004; 127(4): 465-473.
6. Teng CB, **Diao HL**, Ma H, Cong J, Yu H, Ma XH, Xu LB, Yang ZM. Signal transducer and activator of transcription 3 (Stat3) expression and activation in rat uterus during early pregnancy. *Reproduction*. 2004; 128(2):197-205.
7. Teng CB, **Diao HL**, Ma XH, Xu LB, Yang ZM. Differential expression and activation of Stat3 during mouse embryo implantation and decidualization. *Mol Reprod Dev*. 2004; 69(1):1-10
8. Ding NZ, Ma XH, **Diao HL**, Xu LB, Yang ZM. Differential expression of peroxisome proliferator-activated receptor delta at implantation sites and in decidual cells of rat uterus. *Reproduction*. 2003; 125(6):817-25.
9. **Diao HL**, Li SJ, Wang HB, Yang ZM. Calcitonin immunostaining in monkey uterus during menstrual cycle and early pregnancy. *Endocrine*. 2002; 18(1):75-78
10. Xiao LJ, **Diao HL**, Ma XH, Ding NZ, Kadomatsu K, Muramatsu T, Yang ZM. Basigin expression and hormonal regulation in the rat uterus during the peri-implantation period.

Reproduction. 2002; 124(2):219-225

11. **Diao HL**, Zhu H, Ma H, Tan HN, Cong J, Su RW, Yang ZM. Nimesulide (COX-2 inhibitor) severely inhibits rat implantation and decidualization. (*submission*)
12. Ying Chen, Hua Ni, Xing-Hong Ma, Shi-Jun Hu, Li-Ming Luan, Yue-Chao Zhao, **Hong-Lu Diao**, Xiu Xu, Zhen-Ao Zhao, Ren-Wei Su, Fei Gao, Zeng-Ming Yang. Global analysis of differential luminal epithelial gene expression at mouse implantation sites. (*submission*)

Reviews

13. **Diao HL**, Yang ZM. Cadherins in Mammalian Reproduction. *Chinese Journal of Cell Biology*. 2002; 22(5): 302-305
14. **Diao HL**, Xu LB, Yang ZM. Cyclins in Mammalian Reproduction. *Reproduction and Contraception*. 2002; 24(5): 286-289
15. **Diao HL**, Xu LB, Yang ZM. Gp130 signal transduction in Mammalian Implantation and Decidualization. *Chinese Journal of Cell Biology*. 2003; 25(2): 69-73
16. **Diao HL**, Xu LB, Yang ZM. Distribution and function of immunocyte in uterus during pregnancy. *Progress in Physiological Sciences*. 2003; 34(3):285-287

MANUSCRIPTS IN PREPARATION

1. **Diao HL**, Tan HN, Rengaraj D, Yang ZM. Effect of gonadotropins on mouse implantation and decidualization.
2. **Diao HL**, Tan HN, Su RW, Sheng HY, Yang ZM. Ndr3 is critical to uterine receptivity for embryo implantation and decidualization.
3. **Diao HL**, Su RW, Tan HN, Li SJ, Sheng HY, Lei W, Yang ZM. Androgen activity in mouse embryo implantation and decidualization.

ABSTRACTS AND POSTERS AT INTERNATIONAL MEETING:

1. **Diao HL**, Tan HN, Rengaraj D, Yang ZM. Effect of gonadotropins on mouse implantation and decidualization. 38th Annual meeting society for the study of reproduction. 2005. supplement 1, pp. 213
2. Fei G, Lei W, **Diao HL**, Luan LM, Hu SJ, Yang ZM. Prostaglandin transporter (PGT) expression and regulation in mouse uterus during early pregnancy. 38th Annual meeting society for the study of reproduction. 2005. supplement 1, pp. 205
3. **Diao HL**, Zhu H, Ma H, Yang ZM. Cyclooxygenase-2 is important for rat embryo implantation and decidualization. 37th Annual meeting society for the study of reproduction. 2004. supplement 1, pp. 154
4. Tan HN, **Diao HL**, Xu LB, Yang ZM. Estrogen Receptor α (ER α) expression and phosphorylation in mouse uterus and preimplantation embryos during early pregnancy. 37th Annual meeting society for the study of reproduction. 2004. supplement 1, pp. 154
5. Cong J, **Diao HL**, Zhao YC, Yan YQ, Yang ZM. Differential expression of microsomal prostaglandin E synthase in rat uterus during embryo implantation and decidualization. 37th Annual meeting society for the study of reproduction. 2004. supplement 1, pp. 154
6. Yang ZM, Ma XH, **Diao HL**, Xu LB, Yan YQ. Differential expression of preoxisome

proliferator-activated receptor delta at implantation sites and in decidual cells of rat uterus. 36th Annual meeting society for the study of reproduction. 2003. supplement 1, pp. 334

Book chapter:

Yang Zeng-Ming, Diao Hong-Lu. "Pregnancy maintain" In: Biology of Reproduction. (Yang Zeng-Ming, Sun Qing-Yuan, Xia Guo-Liang, eds), 2005; 289-307, Scientific Press, Beijing.

CURRENT RESEARCH ACTIVITIES

I am a doctoral student of Prof. Yang Zeng-Ming in the Lab of Molecular Reproduction and Development, Northeast Agricultural University, Harbin, China. My current research focuses on the expression, regulation and function of implantation-related molecules in mouse uterus during early pregnancy. Pseudopregnancy, delayed implantation, steroid hormone treatment, artificial decidualization and culture of mouse uterine cells are used in my projects. I am familiar with *in situ* hybridization, immunohistochemistry, Western Blot and semi-quantitative RT-PCR. Additionally, I am familiar with mouse and rat surgical techniques, like ovariectomy, castration, oviduct/vas ligation, embryo transfer, and intrauterine injection.

REFERENCES

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