

## SHUO XIAO

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Arnold School of Public Health, University of South Carolina  
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### EDUCATION

08/2008 – 08/2013 Ph.D., Toxicology, The University of Georgia, Athens, GA, USA  
09/2006 – 06/2008 M.S., Nutrition and Food Toxicology, Peking University School of Public Health, Beijing, China  
09/2001 – 06/2006 B.Med., Preventive Medicine, Peking University School of Public Health, Beijing, China

### RESEARCH EXPERIENCE

01/2017–present Assistant professor, Director of Reproductive Toxicology Laboratory, Department of Environmental Health Sciences, Arnold School of Public Health, University of South Carolina, Columbia, SC

09/2013 – 12/2016 Postdoctoral Research Fellow in Dr. Teresa K. Woodruff's lab, Dept. Obstetrics/Gynecology, Northwestern University, Chicago, IL

- Adverse effect of environmental and pharmaceutical chemicals on the female reproductive system
- *In vitro* human follicle culture as fertility preservation option for young cancer patients
- *EX vivo* female reproductive tract in a 3D microphysiologic system for drug screening and environmental chemical toxicity testing

08/2008 – 08/2013 Graduate Research Assistant with Dr. Xiaoqin Ye, Dept. Physiology and Pharmacology, University of Georgia, Athens, GA  
PhD dissertation focuses:

- Effects of Environmental endocrine disruptors on female reproductive system
- Molecular mechanisms of embryo transport, implantation, and the establishment of uterine receptivity

04/2011 – 06/2011 Research Student in "Frontiers in Reproduction" Training Program, Marine Biological Laboratory, Woods Hole, MA

01/2008 – 07/2008 Clinical Trial Assistant, Bayer Healthcare R&D Dept., Beijing, China

08/2006 – 06/2008 Graduate Research Assistant with Dr. Peiyu Wang, Dept. Nutrition and Food Toxicology, Peking University Health Science Center, Beijing, China  
Thesis: Effects of genistein exposure on human breast cancer MCF-7 cell proliferation and apoptosis.

06/2006 – 07/2006 Visiting Scholar, School of Public Health, Chinese University of Hong Kong, Hong Kong

## TEACHING EXPERIENCE

- 09/2016-12/2016 Instructor, Master of Reproductive Science and Medicine, Northwestern University, REPR\_SCI 440 (Reproductive Technologies Laboratory) and REPR\_SCI 406 (Human Reproductive Development)
- 11/2013 – 12/2016 Academic and research mentor of four master students in Biotechnology Program in Northwestern University
- 04/2015 – 05/2015 Instructor in follicle culture laboratory, Frontier in Reproduction, Marine Biological Laboratory, Woods Hole, MA
- 04/2014 – 05/2014 Teaching assistant, Frontier in Reproduction, Marine Biological Laboratory, Woods Hole, MA
- 08/2008 – 05/2013 Teaching assistant, Physiology, University of Georgia, Athens, GA
- 06/2009 – 06/2012 Teaching undergraduate students and junior graduate students molecular techniques at Dr. Xiaoqin Ye's lab, University of Georgia, Athens, GA

## CLINICAL EXPERIENCE

- 05/2005 – 08/2005 Intern, Center for Disease Control and Prevention (CDC) in Nanshan District, Shen Zhen, China
- 02/2004 – 07/2005 Intern, Beijing Railway General Hospital, Beijing, China

## PUBLICATIONS

1. **Xiao, S.**, Coppeta, J., Zhu, J., Isenberg, B., Woodruff, T. (2017) 28-day menstrual cycle hormone control of human reproductive tract function in a microphysiologic, dynamic, and microfluidic culture system. *Nat Commun*, In press.
2. **Xiao, S.**, Li, R., El Zowalaty, A., Diao, H., Zhao, F., Choi, Y and Ye, X. (2017) Acidification of uterine epithelium during embryo implantation in mice. *Biol Reprod*, In press.
3. **Xiao, S.**, Zhang, J., Romero MM., Smith KN., Shea, LD., Woodruff, TK. (2015) *In vitro* follicle growth supports human oocyte meiotic maturation. *Sci Rep*. 5:17323.
4. Diao H., Li R., El Zowalaty AE, **Xiao S.**, Dudley EA, YE X. (2015) Deletion of Lysophosphatidic acid receptor 3 (Lpar3) disrupts fine local balance of progesterone and estrogen signaling in mouse uterus during implantation. *Biol Reprod*. 93 (5): 123.
5. **Xiao, S.**, Duncan, FE., Bai, L., Nguyen, CT., Shea, LD., Woodruff, TK. (2015) Size-specific follicle selection improves mouse oocyte reproductive outcomes. *Reproduction: Piirep-15-0175*.
6. Li, R., Diao, H., Zhao, F., **Xiao, S.**, and Zowalaty AE., Dudley, EA., Mattson, MP., Ye, X. (2013) Olfactomedin 1 deficiency leads to defective olfaction and impaired female fertility. *Endocrinology*: en20151389.
7. Lin, Z, Dodd, CA., **Xiao, S.**, Krishna S., Ye X., Filipov NM. (2014) Gestational and Lactational Exposure to Atrazine via the Drinking Water Causes Specific Behavioral Deficits and Selectively Alters Monoaminergic Systems in C57BL/6 Mouse Dams, Juvenile and Adult Offspring. *Toxicolog Sci*: 141 (1): 90-102.
8. Zhao, F., Li, R., **Xiao, S.**, Diao, H., El Zowalaty, AE. and Ye, X. (2014) Multigenerational exposure to dietary zearalenone (ZEA), an estrogenic mycotoxin, affects puberty and reproduction in female mice. *Reprod Toxicol*, 47: 81-8.
9. Li, R., Zhao, F., Diao, H., **Xiao, S.**, and Ye, X. (2013) Postweaning dietary genistein exposure advances puberty without significantly affecting early pregnancy in C57BL/6J female mice. *Reprod Toxicol*, 44: 85-92.

10. **Xiao, S.**, Diao, H., Zhao, F., Li, R., and Ye, X. (2013) Progesterone receptor-mediated upregulation of N-acetylneuraminidase pyruvate lyase (NPL) in preimplantation mouse uterine luminal epithelium and dispensable function of NPL in fertility. *PLoS ONE*, 8 (5) e65607
11. **Xiao, S.**, Diao, H., Zhao, F., Li, R., He, N., and Ye, X. (2013) Differential gene expression profiling of mouse uterine luminal epithelium during periimplantation. *Reprod Sci*, 21 (3):351-62.
12. Diao, H., **Xiao, S.**, Howerth, E.W., Zhao, F., Li, R., Ard M.B., and Ye X. (2013) Blocking uterine gap junction by carbenoxolone prevents embryo implantation. *Biol Reprod*, 89 (2):31-36.
13. Diao, H., **Xiao, S.**, Li, R., Zhao, F., and Ye, X. (2013) Distinct spatiotemporal expression of serine proteases *Prss23* and *Prss35* in periimplantation mouse uterus and dispensable function of *Prss35* in fertility. *PLoS ONE*, 8 (2) e56757.
14. Zhao, F., Li, R., **Xiao, S.**, Diao, H., Viveiros, M.M., Song, X. and Ye, X. (2013) Postweaning dietary exposure to zearalenone (ZEA), a mycotoxin, promotes puberty onset and disrupts early pregnancy events in female mice. *Toxicol Sci*, 132 (2): 431-442.
15. **Xiao, S.**, Diao, H., Smith, MA., Song, X., Ye, X. (2011) Pre-implantation exposure to bisphenol A (BPA) affects embryo transport, preimplantation embryo development, and uterine receptivity in mice. *Reprod Toxicol*, 32:434-441.
16. Diao, H., Paria, B.C., **Xiao, S.**, Ye, X. (2011). Temporal expression pattern of progesterone receptor in the uterine luminal epithelium suggests its requirement during early events of implantation. *Fertil Steril*; 95:2087-93.
17. Diao, H., Aplin, J.D., **Xiao, S.**, Chun J., Li Z., Chen, S., Ye, X. (2011). Altered Spatiotemporal Expression of Collagen Types I, III, IV, and VI in *Lpar3*-Deficient Peri-Implantation Mouse Uterus. *Biol Reprod*; 84:255-265.
18. Diao, H., **Xiao, S.**, Zhao, F., and Ye, X. (2010). Uterine luminal epithelium specific proline-rich acidic protein 1 (*PRAP1*) as a marker for successful embryo implantation. *Fertil Steril*; 94:2808-2811.
19. Holladay, S.D., **Xiao, S.**, Diao, H., Barber, J., Nagy, T., Ye, X., Goyal, R.M. Jr (2010). Perinatal bisphenol A exposure in C57BL6/129svj male mice: Potential altered cytokine /chemokine production in adulthood. *Int. J. Environ. Res. Public Health*; 7:2845-2852.
20. Diao, H., **Xiao, S.**, Cui, J., Chun, J., Xu, Y., and Ye, X. (2010). Progesterone receptor-mediated upregulation of transthyretin (*TTR*) in pre-implantation mouse uterus. *Fertil Steril*; 93:2750-2753.
21. **Xiao, S.**, Wang, P., and Zhang, Y. (2009). Effect of genistein on cell growth of human breast cancer cell MCF-7. *Chinese J. Public Health*. 1(25):65-69.
22. **Xiao, S.**, Wang, P., and Zhang, Y. (2008). Advances in study of isoflavone and breast cancer. *Chinese J. Public Health*. 5(24): 530-531.
23. Liu, ZH., Wang, X., Wang, HF, Gu, Y., Yan, L., Yang, S, Xu, J., Zhao, X., Du X., Zang, J., **Xiao, S.**, Jia, G. (2008) Acute toxicity of nano-sized zinc oxide in ICR mice via intratracheal instillation. *J Environ Occup Med*. 25 (4): 360-362.

## PRESENTATIONS AT CONFERENCES

1. **Xiao, S.**, Coppeta, J., Isenberg, B., Borenstein, JT., Getsios, S., Kim, JJ., Pavone, ME., Sefton, EC, Woodruff, TK. Microfluidic platform supports mouse ovarian follicle development and recapitulates human 28 days menstrual cycle. *Annual Meeting of the Society of Toxicology*, March 14-18, 2016. New Orleans, LA. (Poster)
2. **Xiao, S.**, and Woodruff, TK. In vitro follicle growth support human oocyte meiotic

- maturation. 7<sup>th</sup> Annual Illinois Symposium on Reproductive Sciences, University of Illinois, Urbana-Champaign, Oct 12<sup>th</sup>, 2015 (Platform presentation)
3. Zhang, J., **Xiao, S.**, Woodruff, TK. In vitro exposure of doxorubicin inhibits mouse multilayer secondary follicle growth, survival, hormone secretion, and induces follicle apoptosis. 7<sup>th</sup> Annual Illinois Symposium on Reproductive Sciences, University of Illinois, Urbana-Champaign, Oct 12<sup>th</sup>, 2015 (Poster)
  4. **Xiao, S.**, Coppeta, J., Isenberg, B., Borenstein, JT., Getsios, S., Kim, JJ., Pavone, ME., Sefton, EC, Woodruff, TK. Microfluidic platform supports mouse ovarian follicle development and recapitulates human 28 days menstrual cycle. *48<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, June 17-22, 2015. San Juan, Puerto Rico. (Poster)
  5. **Xiao, S.**, Duncan, F., Bai, L., Nguyen, C., Shea, L., Woodruff T. Personalized follicle monitoring improves oocyte reproductive outcomes during encapsulated *in vitro* follicle growth (eIVFG) in mouse and human. National Centers for Translational Research In Reproduction and Infertility (NCTRI), May 19-20, National Institute of Health, Bethesda, MD (Platform presentation)
  6. **Xiao, S.**, and Woodruff, TK. Personalized follicle monitoring improves oocyte reproductive outcomes during encapsulated *in vitro* follicle growth (eIVFG) in mouse and human. 34<sup>th</sup> Minisymposium on Reproductive Biology, Jan 26, 2015. Chicago, IL (Platform presentation)
  7. **Xiao, S.**, Duncan, F., Bai, L., Nguyen, C., Shea, L., Woodruff T. Stage-specific follicle selection improves mouse oocyte meiotic and developmental outcomes during in vitro follicle growth (IVFG). *Gordon Conference Mammalian Reproduction*, August 10-15, 2014, New London, NH (Poster)
  8. **Xiao, S.**, Duncan, F., Hornick, J., Woodruff T. Markers that predict oocyte meiotic competence during in vitro follicle growth. *Endocrine society annual meeting*, Chicago, IL, 2014 (Poster)
  9. **Xiao, S.**, Diao, H., and Ye, X. Bafilomycin A1, a V-ATPase Inhibitor, inhibits Embryo Implantation via Local Uterine Fat Pad Injection. *Southeast Society of Toxicology Annual Meeting*, October 8-9, 2012, Athens, GA. (Poster)
  10. El Zowalaty A.E., **Xiao, S.**, Diao, H., and Ye, X. Expression of FXRD family of small ion transport regulators in wild type and *Lpar3<sup>-/-</sup>* periimplantation mouse uterus. *Southeast Society of Toxicology Annual Meeting*, October 8-9, 2012, Athens, GA. (Poster)
  11. Li, R., Diao H., **Xiao, S.**, Zhao, F., and Ye, X. Effects of Post-weaning Genistein Exposure on Uterine Development and Spermatogenesis. *Southeast Society of Toxicology Annual Meeting*, October 8-9, 2012, Athens, GA. (Poster)
  12. **Xiao, S.**, Diao, H., and Ye, X. Bafilomycin A1, a V-ATPase Inhibitor, inhibits Embryo Implantation via Local Uterine Fat Pad Injection. *45<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, August 12-15, 2012. State College, PA. (Poster)
  13. Li, R., Diao H., **Xiao, S.**, Zhao, F., and Ye, X. Effects of Post-weaning Genistein Exposure on Uterine Development and Spermatogenesis. *45<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, August 12-15, 2012. State College, PA. (Poster)
  14. Diao, H., **Xiao, S.**, and Ye, X. Dual effects of RU486 on embryo implantation. 2<sup>nd</sup> SKLRB Symposia on "Frontiers in Reproductive Biology", May 6-11, 2012, Beijing, China. (Poster)
  15. **Xiao, S.**, Diao, H., and Ye, X. Bafilomycin A1, a V-ATPase Inhibitor, inhibits Embryo Implantation via Local Uterine Fat Pad Injection. *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. April 13, 2012. Athens, GA. (Poster)
  16. Li, R., Diao H., **Xiao, S.**, Zhao, F., and Ye, X. Effects of Post-weaning Genistein

- Exposure on Uterine Development and Spermatogenesis. *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. April 13, 2012. Athens, GA. (Poster)
17. **Xiao, S.**, Diao, H., Zhao, F., and Ye, X. Effects of preimplantation bisphenol-A (BPA) exposure on preimplantation embryo development and transport and uterine receptivity in mice. *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 31-August 4, 2011. Portland, OR. (Poster)
  18. Diao, H., **Xiao, S.**, and Ye, X. Dose-response and time-course effects of RU486 on uterine progesterone receptor expression and embryo implantation. *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 31-August 4, 2011. Portland, OR. (Poster)
  19. Zhao, F., Diao, H., **Xiao, S.**, Li, R., and Ye, X. Effect of zearalenone (ZEA) on embryo implantation in mice. *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 31-August 4, 2011. Portland, OR. (Poster)
  20. Li, R., Diao, H., **Xiao, S.**, Zhao, F., and Ye, X. Distinct spatiotemporal expression of *Anpep* and *Olfm1* in mouse periimplantation uterus. *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 31-August 4, 2011. Portland, OR. (Poster)
  21. Ye, X., **Xiao, S.**, Diao, H., and Zhao, F. Effects of preimplantation bisphenol-A exposure on embryo transport, embryo implantation, and postnatal body weight in C57BL6 mice. *50<sup>th</sup> Annual Meeting of the Society of Toxicology*, March 6-10, 2011. Washington, D.C. (Poster)
  22. **Xiao, S.**, Diao, H., Zhao, F., and Ye, X. Effect of preimplantation Bisphenol-A exposure on uterine receptivity in mice. *Science Vet Med symposium*, October 14, 2010. University of Georgia, Athens, GA. (Platform presentation)
  23. Zhao, F., Diao, H., **Xiao, S.**, Li, R., and Ye, X. Mechanism study of methoxychlor (MXC) on embryo implantation. *Science Vet Med symposium*, October 14, 2010. University of Georgia, Athens, GA. (Poster)
  24. Li, R., Diao, H., **Xiao, S.**, Zhao, F., and Ye, X. Spatiotemporal expression and regulation of *Gpr128* and *Olfm1* in mouse uterus. *Science Vet Med symposium*, October 14, 2010. University of Georgia, Athens, GA. (Poster)
  25. **Xiao, S.**, Diao, H., Zhao, F., and Ye, X. Effect of preimplantation Bisphenol-A exposure on uterine receptivity in mice. *Southeastern Regional Society of Toxicology Annual Meeting*, October 11-12, 2010. University of Georgia, Athens, GA. (Poster)
  26. Zhao, F., Diao, H., **Xiao, S.**, Li, R., and Ye, X. Mechanism study of methoxychlor (MXC) on embryo implantation. *Southeastern Regional Society of Toxicology Annual Meeting*, October 11-12, 2010. University of Georgia, Athens, GA. (Poster)
  27. Li, R., Diao, H., **Xiao, S.**, Zhao, F., and Ye, X. Spatiotemporal expression and regulation of *Gpr128* and *Olfm1* in mouse uterus. *Southeastern Regional Society of Toxicology Annual Meeting*, October 11-12, 2010. University of Georgia, Athens, GA. (Poster)
  28. **Xiao, S.**, Diao, H., Zhao, F., and Ye, X. Effect of preimplantation Bisphenol-A exposure on uterine receptivity in mice. *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 30-August 3, 2010. Milwaukee, WI. (Poster)
  29. Ye, X., Diao, H., **Xiao, S.**, and Zhao, F. Sustained progesterone receptor expression in day 4.5 LPA<sub>3</sub>-deficient luminal epithelium. *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 30-August 3, 2010. Milwaukee, WI. (Poster)
  30. Diao, H., **Xiao, S.**, Zhao, F., and Ye, X. Proline-rich acidic protein 1 (*PRAP1*) as a marker for established uterine receptivity. *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 30-August 3, 2010. Milwaukee, WI. (Poster)
  31. Zhao, F., Diao, H., **Xiao, S.**, and Ye, X. Transcriptional regulation of *Lpar3* by progesterone receptor. *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*,

- July 30-August 3, 2010. Milwaukee, WI. (Poster)
32. **Xiao, S.**, Diao, H., and Ye, X. Bisphenol-A affects uterine gene expression but has no adverse effect on uterine receptivity in mice. *49<sup>th</sup> Annual Meeting of the Society of Toxicology*, March 7-11, 2010. Salt Lake City, UT. (Poster)
  33. **Xiao, S.**, Diao, H., and Ye, X. Effects of perinatal Bisphenol-A exposure in mice. *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. March 3, 2010. Athens, GA. (Platform presentation)
  34. Zhao, F., Diao, H., **Xiao, S.**, and Ye, X. Transcriptional regulation of *Lpar3* by progesterone receptor. *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. March 3, 2010. Athens, GA. (Poster)
  35. Ye, X., Chun, J., **Xiao, S.**, and Diao, H. Lysophosphatidic acid signaling in uterine receptivity and embryo spacing. *3rd Asia Pacific Congress on Controversies in Obstetrics, Gynecology and Infertility (COGI)*, November 12-15, 2009. Beijing, China. (Platform presentation)
  36. **Xiao, S.**, Diao, H., and Ye, X. Perinatal exposure to Bisphenol-A via maternal treatment has no adverse effect on uterine receptivity of both mother and offspring mice. *42<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 18-22, 2009. Pittsburgh, PA. (Poster)
  37. Diao, H., **Xiao, S.**, and Ye, X. Lysophosphatidic acid signaling in human luminal endometrial epithelial ECC-1 cell line. *42<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 18-22, 2009. Pittsburgh, PA. (Poster)
  38. Ye, X., Chun, J., **Xiao, S.**, Diao, H. Potential biomarkers for uterine receptivity in LPA<sub>3</sub>-deficient females. *42<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 18-22, 2009. Pittsburgh, PA. (Poster)
  39. Ye, X., **Xiao, S.**, Diao, H. Effects of perinatal Bisphenol-A exposure in mice. *48<sup>th</sup> Annual Meeting of the Society of Toxicology*, March 15-19, 2009. Baltimore, MD. (Poster)
  40. **Xiao, S.**, Diao, H., and Ye, X. Effects of perinatal Bisphenol-A exposure in mice. *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. March 5, 2009. Athens, GA. (Poster)

## PATENT

- Teresa K. Woodruff, Ji-Yong Julie Kim, Joanna E. Burdette, Spiro Getsios, Sevim Yildiz Arslan, **Shuo Xiao**, Jie Zhu. 3D Microphysiologic System. Appl. No.: 14/607,862

## PROFESSIONAL AFFILIATIONS

- Society of Toxicology (SOT) (2009 – present)
- Society for the Study of Reproduction (SSR) (2009 – present)
- Society of Endocrinology (ENDO) (2014-present)

## HONORS and AWARDS

- Best postdoctoral publication award, 2016 Midwest-SOT annual meeting, Chicago, IL, April, 15<sup>th</sup>, 2016.
- Postdoctoral Professional Developmental Travel Award at Northwestern University, Chicago, IL, 2016
- 1<sup>st</sup> place oral presentation award, 7<sup>th</sup> Annual Illinois Symposium on Reproductive

- Sciences, University of Illinois, Urbana-Champaign, Oct 12<sup>th</sup>, 2015
- Larry Ewing Memorial Trainee Travel Award (LEMTTF), *Annual Meeting of the Society for Study of Reproduction*, San Juan, Puerto Rico, 2015
  - National Centers for Translational Research In Reproduction and Infertility (NCTRI) travel award, National Institute of Health, Bethesda, MD, May 19-20, 2015
  - Constance Campbell Best Oral Presentation Award, Minisymposium on Reproductive Biology, Northwestern University, Chicago, IL, 2015
  - Constance Campbell Trainee Travel (C2T2) Award, Center at Reproductive Science of Northwestern University, Chicago, IL, 2015
  - Postdoctoral Professional Developmental Travel Award at Northwestern University, Chicago, IL, 2015
  - Frontiers in Reproduction Abstract Award, ICE/ENDO, Chicago, IL, 2014
  - Dissertation Completion Award (\$12,000), Graduate School, University of Georgia, 2012-2013
  - First Place, Student Poster Presentation Award, *Southeast Society of Toxicology Annual Meeting*, Athens, GA, 2012
  - Second Place, Student Poster Presentation Award, *University of Georgia Interdisciplinary Toxicology Program Annual Retreat*. Athens, GA, 2012
  - "Frontiers in Reproduction" Scholarship (\$5,000), Marine Biological Laboratory, Woods Hole, MA, 2011
  - Larry Ewing Memorial Trainee Travel Award (LEMTTF), *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, Portland, OR, 2011
  - ITP Student Research Grant (\$3,500), Interdisciplinary Toxicology Program, University of Georgia, Athens, GA, 2011
  - Larry Ewing Memorial Trainee Travel Award (LEMTTF), *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, Milwaukee, WI, 2010
  - First Place, Student Poster Presentation Award, *Southeastern Regional Society of Toxicology Annual Meeting*, Athens, GA, 2010
  - Duomeizi Scholarship, Peking University, Beijing, China, 2007
  - Liu Shize Fellowship, Peking University, Beijing, China, 2005
  - Renhe Fellowship, Peking University, Beijing, China, 2002

## PROFESSIONAL SERVICES

- Board officer (Postdoctoral Representative) in Midwest Regional Chapter of Society of Toxicology
- Program Committee member (Trainee representatives), Society for Society of Reproduction (2015-present)
- President of University of Georgia Student Toxicology Society (UGATOX) (2012-2013)
- Volunteer at the *44<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 31-August 4, 2011. Portland, OR
- Volunteer at the *43<sup>th</sup> Annual Meeting of the Society for Study of Reproduction*, July 30-August 3, 2010. Milwaukee, WI

## REVIEWER SERVICE IN SCIENTIFIC JOURNALS

- Reproductive Toxicology

- Developmental Biology
- Reproductive Biology and Endocrinology
- Plos One
- Experimental Biology and Medicine
- Journal Of Assisted Reproduction And Genetics
- Cell Biology International
- Scientific Reports

## **INVOLVEMENT OF FUNDED RESEARCH PROGRAM**

### **1. UH3 TR001207, NIH**

#### **Ex vivo female reproductive tract integration in a 3d microphysiologic system**

Project description: Toxicologic testing on female reproductive function and fertility is currently limited to animal studies. We propose to develop in vitro cultures of human reproductive tissues that phenocopy in vivo function in terms of hormone production and response to the physiologically relevant reproductive hormones follicle-stimulating hormone (FSH) and estrogen. The successful development of an ex vivo female reproductive tract will give us the unique ability to interrogate normal hormonal responses of each organ in the context of the complete reproductive tract, as well as examine responses of the organs and system to agents that pose reproductive hazards.

**Role: Key personnel and Estrokube team leader**

### **2. Sherman Fairchild Foundation**

#### **Developing new technology that has implications for women's health through new drug discovery and the ability to test drugs for toxicity**

Project description: This project aims to study how environmental metal such as zinc, iron and magnesium contaminants impair the likelihood of reproductive success by disrupting specific critical windows during gamete development.

**Role: Key personnel**

### **3. P50 HD076188 2013 – 2018, NIH/NICHD**

#### **Center for Reproductive Health After Disease**

#### **Project I: Measuring and Modifying the Human Follicle Environment to Improve In Vitro Egg Quality**

The major goal of this application is to address the basic science need to understand human follicle and egg biology and pursue cutting-edge options for preserving reproductive health, while providing physicians, patients, their families, and the public with information about the risks posed by diseases and treatments to reproductive health that will lead to informed dialogue about options for preserving reproductive function.

**Role: Key personnel**

### **4. R01 HD065939 2011-2016, NIH/NICHD**

#### **Molecular mechanism of Lpa3-mediated uterine receptivity**

The project aims to determine interplay between PR and LPA3 in LE, based on the working hypothesis that PR and LPA3 mutually regulate each other in LE for the establishment of uterine receptivity and the role of LPA3 in regulating molecular pathways in preimplantation day 3.5 endometrium in mice,

**Role: Key personnel**