

## BIOGRAPHICAL SKETCH

NAME Jing Zheng		POSITION TITLE Associate Professor	
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Xiamen University, Fujian, P.R. China	BS	1978-1982	Zoology
North Dakota State University, Fargo, ND	MS & PhD	1989-1995	Reprod. Physiology
University of Wisconsin-Madison	Postdoc.	1995-1997	Reprod. Physiology

### A. Positions and Honors

#### Positions and Employment

1982-1989	Assistant Lecturer and Researcher. Aquaculture Dept, Zhanjiang Fisheries College, Guangdong, P.R. China.
1989-1995	Graduate Research Assistant. Department of Animal and Range Sciences, North Dakota State University.
1995-1997	Postdoctoral Fellow. Dept.of Ob/Gyn, Univ. of Wisconsin, Madison, WI
1997-2001	Research Assistant Professor (Assistant Scientist). Dept. of Ob/Gyn, Univ. of Wisconsin, Madison, Madison, WI.
2001-2007	Assistant Professor. Dept of Ob/Gyn, Univ. of Wisconsin Madison, Madison, WI.
2007-	Associate Professor. Department of Ob/Gyn, Univ. of Wisconsin Madison, Madison, WI.

#### Other Experience and Professional Memberships

1990-current	Society for the Study of Reproduction
1999-current	Society for Gynecologic Investigation
2000-current	Perinatal Research Society (Honor Society)
2006-current	International Society for Stem Cell Research
2007	Ad Hoc Member, NIH Pregnancy & Neonatology (PN) Study Section
2008-current	Executive Editorial Board, International Journal of Clinical and Experimental Medicine
2009	Ad Hoc Member, NIH Special Emphasis Panel (ZRG1 EMNR-C (58)
2009	Member, NIH Special Emphasis Panel/ZES1 LKB-G (TW).
2010-present	Editorial Board, Journal of Endocrinology.
2011, Spring & Fall	Member, American Heart Association, The Vascular Endothelial Biology and Function Committee 1.

#### Honors

1997	Perinatal Research Society NIH Young Investigator Travel Award.
2004-	Guest Professor, Zhanjiang Ocean University, Zhanjiang, China
2004	Invited speaker: FASEB Summer Research Conferences: Molecular and Cellular Signaling in the Perinatal Cardiovascular System, Tucson, AZ
2011-	Guest Professor, Guangdong Medical College, Zhanjiang, China

### B. Selected Peer-reviewed Publications

1. **Zheng J**, Vagnoni KE, Bird IM, Magness RR. Expression of basic fibroblast growth factor, endothelial mitogenic activity, and angiotensin II type-1 receptors in the ovine placenta during the third trimester of pregnancy. *Biol Reprod* 1997; 56:1189-1197.
2. **Zheng J**, Bird IM, Melsaether AN, Magness RR. Activation of the mitogen-activated protein kinase cascade is necessary but not sufficient for basic fibroblast growth factor- and epidermal growth factor-stimulated expression of endothelial nitric oxide synthase in ovine fetoplacental artery endothelial cells. *Endocrinology*. 1999; 140:1399-1407.

3. Bird IM, Sullivan JA, DI T, Cale JM, Zhang L, **Zheng J**, Magness RR. Pregnancy-dependent changes in cell signaling underlie changes in differential control of vasodilator production in UAEC. *Endocrinology* 2000; 141: 1107-1117.
4. Chung JY, Song Y, Wang YX, Magness RR, **Zheng J**. Differential expression of VEGF, EG-VEGF, and VEGF receptors in human placentas from normal and preeclamptic pregnancies. *J Clin Endocrinol Metab.* 2004; 89:2484-2490.
5. **Zheng J**, Wen YX, Chen DB, Bird IM, Magness RR. Angiotensin II elevates nitric oxide synthase 3 expression and nitric oxide production via a mitogen-activated protein kinase cascade in ovine fetoplacental artery endothelial cells. *Biol Reprod* 2005; 72: 1421-1428.
6. **Zheng J**, Bird IM, Chen DB, Magness RR. Angiotensin II regulation of fetoplacental artery endothelial functions. *J Physiol (London)* 2005; 565: 59-69. Review.
7. **Zheng J**, Wen YX, Austin JL, Chen DB. Exogenous nitric oxide stimulates cell proliferation via activation of a mitogen activated protein kinase pathway in ovine fetoplacental artery endothelial cells. *Biol Reprod* 2006; 74, 375-382.
8. **Zheng J**, Wen YX, Song Y, Wang K, Chen DB, Magness RR. Activation of multiple signaling pathways is critical for fibroblast growth factor 2- and vascular endothelial growth factor-stimulated ovine fetoplacental endothelial cell proliferation. *Biol Reprod* 2008; 78: 143-150. PMC2441762
9. Wang K, Song Y, Chen DB, **Zheng J**. Protein phosphatase 3 differentially modulates vascular endothelial growth factor and fibroblast growth factor 2-stimulated cell proliferation and signaling in ovine fetoplacental artery endothelial cells. *Biol Reprod.* 2008; 79: 704-710. PMC2574765
10. Song Y, Wang K, Chen DB, Magness RR, **Zheng J**. Suppression of protein phosphatase 2 does not affect VEGF- and FGF2-stimulated ovine fetoplacental artery endothelial cell proliferation. *Placenta* 2009; 30: 907-913. PMC2711505.
11. Liao WX, Feng L, Zhang HH, **Zheng J**, Moore TR, Chen DB. Compartmentalizing VEGF-induced ERK2/1 signaling in placental artery endothelial cell caveolae: a paradoxical role of caveolin-1 in placental angiogenesis in vitro. *Mol Endocrinol* 2009 23:1428-44. PMC2737550
12. Wang K, Jiang YZ, Chen DB, **Zheng J**. Hypoxia enhances FGF2- and VEGF-stimulated human placental artery endothelial cell proliferation: Roles of MAP2K1/2/MAPK3/1 and PI3K/AKT1 pathways. *Placenta* 2009 30:1045-1051. PMC2788063
13. Jobe SO, Ramadoss J, Koch JM, Jiang YZ, **Zheng J**, Magness RR. Estradiol-17 $\beta$ , its hydroxy- and methoxy-metabolites stimulate proliferation in uterine artery endothelial cells: role of estrogen receptor- $\alpha$  vs. - $\beta$  in angiogenesis. *Hypertension* 2010; 55:1005-1011. PMC2876348.
14. Jiang YZ, Wang K, Fang R, **Zheng J**. Expression of aryl hydrocarbon receptor in human placentas and fetal tissues. *J Histochem Cytochem* 2010 58: 679-686. PMC2907273.
15. Kai Wang, **Zheng J**. Signaling regulation of fetoplacental angiogenesis. *J Endo.* (Review) 2011 Nov 21. [Epub ahead of print].

### C. Research Support

PI and Col	Source	Years	Title:
<b>Current:</b>			
<b>Jing Zheng</b> (PI in Project III and Co-PI in Cellular and Molecular Core. Project III is to study endothelial differentiation from human embryonic stem cells.		05/01/07-04/31/12	Project III Title: Human Embryonic Stem Cell-Derived Endothelial Cells.
<b>Former:</b>			

This is competing continuation of NIH 1RO1 HL64703. The main goal of this study is to determine whether bFGF- and VEGF-induced fetoplacental angiogenesis is modulated in part via an increase in production of NO which in turn activates the protein kinases (PI3K/Art and p38 MAPK) and phosphatases (PP2A & PP2B) signal pathways. No overlap with the current application.

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<b>Jing Zheng</b> <b>(PI)</b> Magness RR (Co-PI)	07/1/04- 06/30/06
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Administrative supplements for establishing human embryonic stem cell culture and pilot study for endothelial differentiation from human embryonic stem cells.

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<b>Jing Zheng</b> <b>(PI)</b> IM Bird (Col) RR Magness (Col)	4/1/05- 3/30/10	Effects of Nitric Oxide on FetoPlacental Angiogenesis
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