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# The role of glucocorticoid receptor signaling in metabolic disease: a matter of time and sex

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# LIST OF PUBLICATIONS


1. **Sheng Li**, Sen Zhang, Patrick C.N. Rensen, Onno C. Meijer, Sander Kooijman, Jan Kroon. Out-of-phase treatment with the synthetic glucocorticoid betamethasone disturbs glucose metabolism in mice. **Life Sciences 2024**; 357: 123080.
2. **Sheng Li**, Zhixiong Ying, Max Gentenaar, Patrick C.N. Rensen, Sander Kooijman, Jenny A. Visser, Onno C. Meijer, Jan Kroon. Glucocorticoid Receptor Antagonism Improves Glucose Metabolism in a Mouse Model of Polycystic Ovary Syndrome. **J Endocr Soc 2024**; 8:1.
3. **Sheng Li**, Milena Schönke, Jacobus C. Buurstede, Tijmen J.A. Mol, Max Gentenaar, Maaike Schilperoort, Jenny A. Visser, Kasiphak Kaikaew, Davy van de Vijver, Tooba Abbassi-Daloii, Vered Raz, Annemieke Aartsma-Rus, Maaike van Putten, Onno C. Meijer, Jan Kroon. **Front Endocrinol (Lausanne) 2022**; 13: 907908.
4. Xu-Huang Fu, Cheng-Zhen Chen, **Sheng Li**, Dong-Xu Han, Yi-Jie Wang, Bao Yuan, Yan Gao, Jia-Bao Zhang, Hao Jiang. Dual-specificity phosphatase 1 regulates cell cycle progression and apoptosis in cumulus cells by affecting mitochondrial function, oxidative stress, and autophagy. **Am J Physiol Cell Physiol 2019**; 317:6
5. **Sheng Li**, Chengzhen Chen, Menglong Chai, Jiawei Wang, Bao Yuan, Yan Gao, Hao Jiang, Jiabao Zhang. Identification and Analysis of lncRNAs by Whole-Transcriptome Sequencing in Porcine Preadipocytes Induced by BMP2. **Cytogenet Genome Res 2019**; 158(3):133-144.
6. Xiaoming Sun, Jinglin Shen, Chang Liu, **Sheng Li**, Yanxia Peng, Chengzhen Chen, Bao Yuan, Yan Gao, Xianmei Meng, Hao Jiang, Jiabao Zhang. L-Arginine and N-carbamoylglutamic acid supplementation enhance young rabbit growth and immunity by regulating intestinal microbial community. **Asian-Australas J Anim Sci 2020**; 33(1):166-176.
7. **Li, S.**; Chen, C.; Jiang, H.; Zhang, J.; Zhou, Q.; Gao, Y.; Yuan, B. and Zhang, M. Effects of PSMA1 on the differentiation and lipid deposition of bovine preadipocytes. **Revista Brasileira de Zootecnia 2019**; 48:e20180229.
8. Yao Fu, Hao Jiang, Jian-Bo Liu, Xu-Lei Sun, Zhe Zhang, **Sheng Li**, Yan Gao, Bao Yuan, Jia-Bao Zhang. Genome-wide analysis of circular RNAs in bovine cumulus cells treated with BMP15 and GDF9. **Sci Rep 2018**; 8(1):7944

## CURRICULUM VITAE

Sheng Li was born on April 21, 1992, in Ulanhot, Inner Mongolia, China. In June 2014, he earned his BSc degree in Animal Science from Jilin University. After graduation, he worked as a technician at Charoen Pokphand Group in Shenyang, China. In December 2014, he was promoted to Technical Director, where he was responsible for providing technical support to breeders and conducting internal training sessions. Three months later, he resigned to prepare for postgraduate entrance exams.

In September 2016, Sheng began a three-year master's program in Animal Nutrition and Feed Science at Jilin University in Changchun, China. His research, titled "Identification and Analysis of Long Non-Coding RNAs by Whole-Transcriptome Sequencing in Porcine Preadipocytes Induced by BMP2 (Bone Morphogenetic Protein 2)," was supervised by Prof. Dr. Jiabao Zhang and Prof. Dr. Chengzhen Chen. He published two first-author scientific articles and earned his MSc degree in 2019. That same year, Sheng was awarded a scholarship from the China Scholarship Council (CSC) and joined the research group of Prof. Dr. Onno Meijer in the Department of Internal Medicine, Division of Endocrinology, at Leiden University Medical Center.

In February 2020, Sheng began his PhD program titled "Glucocorticoid Signaling in Metabolic Diseases" under the supervision of Prof. Dr. Onno Meijer and Dr. Jan Kroon. His research focused on the differential impact of glucocorticoid receptor (GR) signaling between sexes and the role of circadian timing in mitigating glucocorticoid-associated metabolic dysregulation. He also explored the potential therapeutic role of GR in polycystic ovary syndrome (PCOS) using rodent models. His findings offer new insights into how GR modulation may improve metabolic outcomes in patients. The results of his research are presented in this thesis.

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