





JIANNAN ZHANG (张剑南)

Associate Research Fellow at Sichuan University. I am also employed as a Post-doctoral Fellow in [Wang yajun \(王亚军\)](#) Lab at Sichuan University (四川大学).

I am broadly interested in Avian Physiology, Endocrinology and Metabolism, and Transgenesis in chicken.

RESEARCH EXPERIENCE

- present**
2023
● **Associate Professor**
Sichuan University  Sichuan University
• 2023-present, Associate Professor, The College of Life Sciences
- 2023**
2017
● **Post-doctoral Fellow**
Sichuan University  Sichuan University
- 2022**
2021
● **Associate Research Fellow**
Sichuan University  Sichuan University
• 2021-present, Associate Research Fellow, The College of Life Sciences
- 2021**
2017
● **Assistant Research Fellow**
Sichuan University  Sichuan University
• 2017-2021, Assistant Research Fellow, The College of Life Sciences

EDUCATION

- 2017**
2011
● **PhD., Cell Biology**
Sichuan University  Sichuan, CN
- 2011**
2007
● **B.S., National Base of Life Science & Biotechnology Education**
Sichuan University  Sichuan, CN

TEACHING EXPERIENCE


- 2023**
2019
● **Developmental biology (发育生物学)**
Undergraduate level class, The College of Life Sciences  Sichuan University
• Undergraduate level class
- 2021**
● **Cell biology (细胞生物学)**
Undergraduate level class, The College of Life Sciences  Sichuan University
• Undergraduate level class

GRANTS




CONTACT

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 qq124975496

For more information, please contact me via email.

SKILLS

Wet-lab

- Molecular cloning
- Functional analysis
- IHC/ISH/FISH/Co-IP/Chip-Seq...
- Gene-editing with CRISPR/Cas9
- PGCs culture and Microinjection

Dry-lab

- RNA-Seq data analysis
- scRNA-Seq data analysis
- Highly skilled in R and Bash.

Made with the R package
[pagedown](#).

Last updated on 2023-03-17.

2024
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2023

2021
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2020

2021
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2019

- **热应激影响家鸡肝脏脂质代谢的调控机制解析(2023NSFSC0230)**
主持, CNY ¥ 200,000, 四川省自然科学基金
- **垂体激素ACTH调控家鸡肝脏糖脂代谢的机制探究 (2020T130439)**
主持, CNY ¥ 180,000, 中国博士后科学基金特别资助
- **多不饱和脂肪酸调控家鸡肝脏脂肪生成的机制解析 (省重) (2019YJ0017)**
主持, CNY ¥ 100,000, 四川省科学技术厅-应用基础研究
- **家鸡GPR120受体介导多不饱和脂肪酸对肝脏脂质代谢的调节效应探究 (31802056)**
主持, CNY ¥ 300,000, 国家自然科学基金青年项目



PUBLICATIONS

2023

2022

- **Cholecystokinin (CCK) and its receptors (CCK1R and CCK2R) in chickens: functional analysis and tissue expression**
Poultry Science. 2023, 102 (1), 102273. doi: 10.1016/j.psj.2022.102273
• Yiping, Wan; Qiuyang, Deng; Zhichun, Zhou; Yue, Deng; **Jiannan, Zhang**; Juan, Li; Yajun, Wang^{*}
- **A gene expression atlas of Lohmann white chickens**
bioRxiv. 2022. doi: 10.1101/2022.07.30.500160
• **Jiannan Zhang**[#], Xinglong Wang, Can Lv, Yiping Wan, Xiao Zhang, Juan Li, Yajun Wang^{*}
• preprint
- **Characterization of the Chicken Melanocortin 5 Receptor and its Potential Role in Regulating Hepatic Glucolipid Metabolism**
Frontiers in physiology. 2022, 2101. doi: 10.3389/fphys.2022.917712
• Xiao Zhang[#], Jiancheng Su[#], Tianjiao Huang, Xinglong Wang, Chenlei Wu, Jing Li, Juan Li, **Zhang, Jiannan**^{*}, Yajun Wang^{*}
- **Characterization of CRH-Binding Protein (CRHBP) in chickens: molecular cloning, tissue distribution and investigation of its role as a negative feedback regulator within the hypothalamus–pituitary–adrenal axis**
Genes. 2022, 13(10), 1680. doi: 10.3390/genes13101680
• Yiping Wan, Zheng Zhang, Dongliang Lin, Xinglong Wang, Tianjiao Huang, Jiancheng Su, **Jiannan Zhang**, Juan Li, Yajun Wang^{*}
- **Characterization of Chicken A2A-Adrenoceptor: Molecular Cloning, Functional Analysis, and Its Involvement in Ovarian Follicular Development.**
Genes. 2022, 13 (7), 1113. doi: 10.3390/genes12040489
• Jiang, B.[#], Cao, B.; Zhou, Z.; Li, Z.; Lv, C.; **Zhang, J.**; Zhang, H.; Wang, Y.; Li, J.^{*}

- **Evidence for Neuropeptide W Acting as a Physiological Corticotropin-Releasing Inhibitory Factor in Male Chickens**

Endocrinology. 2022, 163 (7), bqac073. doi: [10.1016/j.psj.2021.101445](https://doi.org/10.1016/j.psj.2021.101445)

• Liu, M.[#]; Bu, G.[#]; Wan, Y.; **Zhang, J.**; Mo, C.; Li, J.; Wang, Y.^{*};

- **LncEDCH1 improves mitochondrial function to reduce muscle atrophy by interacting with SERCA2**

Molecular Therapy-Nucleic Acids. 2022, 27: 319-334. doi: [10.1016/j.psj.2021.101445](https://doi.org/10.1016/j.psj.2021.101445)

• Cai, B.[#]; Ma, M.[#]; Zhang, J.; Wang, Z.; Kong, S.; Zhou, Z.; Lian, L.; **Zhang, J.**; Li, J.; Wang, Y.; Li, H.^{*}; Zhang, X.; Nie, Q.^{*};

• Impact Factor = 10.18

2021

- **Neuropeptide S (NPS) and its receptor (NPSR1) in chickens: cloning, tissue expression, and functional analysis**

Poultry Science. 2021, 100 (12), 101445. doi: [10.1016/j.psj.2021.101445](https://doi.org/10.1016/j.psj.2021.101445)

• Chao Fang[#], **Jiannan Zhang[#]**, Yiping Wan, Zejiao Li, Feiyang Qi, Yuanhao Dang, Juan Li, Yajun Wang^{*};

- **Molecular Cloning and Functional Characterization of Three 5-HT Receptor Genes (HTR1B, HTR1E, and HTR1F) in Chickens**

Genes. 2021, 12(6): 891. doi: [10.3390/genes12060891](https://doi.org/10.3390/genes12060891)

• Caiyun Sun, Yang Qiu, Qin Ren, Xiao Zhang, Baolong Cao, Yi Zou, Juan Li, **Jiannan Zhang^{*}**, Yajun Wang;

- **Single-Cell RNA Sequencing Analysis of Chicken Anterior Pituitary: A Bird's-Eye View on Vertebrate Pituitary**

Frontiers in physiology. 2021, 12. doi: [10.3389/fphys.2021.562817](https://doi.org/10.3389/fphys.2021.562817)

• **Jiannan Zhang[#]**, Can Lv[#], Chunheng Mo, Meng Liu, Yiping Wan, Juan Li^{*}, Yajun Wang^{*};

• Impact Factor = 4.566

- **Characterization of Four Orphan Receptors (GPR3, GPR6, GPR12 and GPR12L) in Chickens and Ducks and Regulation of GPR12 Expression in Ovarian Granulosa Cells by Progesterone**

Genes. 2021, 12(4): 489. doi: [10.3390/genes12040489](https://doi.org/10.3390/genes12040489)

• Li, Z.; Jiang, B.; Cao, B.; Zhang, Z.; **Zhang, J.**; Li, J.; Huang, Y.^{*}; Wang, Y.^{*};

- **Characterization of four urotensin II receptors (UTS2Rs) in chickens**

Peptides. 2021, 138: 170482. doi: [10.1016/j.peptides.2020.170482](https://doi.org/10.1016/j.peptides.2020.170482)

• Cui, L.[#], Lv, C.[#], **Zhang, J.**, Li, J.^{*}, & Wang, Y.^{*};

2020

- **The Asp298Asn polymorphism of melanocortin-4 receptor (MC4R) in pigs: evidence for its potential effects on MC4R constitutive activity and cell surface expression**

Animal Genetics. 2020, 51(5):694-706. doi: [10.1111/age.12986](https://doi.org/10.1111/age.12986)

• **Zhang, J[#]**; Li, J.[#]; Wu, C.; Hu, Z.; An, L.; Wan, Y.; Fang, C.; Zhang, X.; Li, J.^{*}; Wang, Y.^{*};

• Impact Factor = 2.841

- **Melanocortin Receptor 4 (MC4R) Signaling System in Nile Tilapia**
International Journal of Molecular Sciences. 2020, 21(19):7036. doi: [10.3390/ijms21197036](https://doi.org/10.3390/ijms21197036)
 • Liu, Tianqiang; Deng, Yue; Zhang, Zheng; Cao, Baolong; Li, Jing; Sun, Caiyun; Hu, Zhixing; **Zhang, Jiannan**^{*}; Li, Juan; Wang, Yajun^{*};
 • Impact Factor = 4.556
- **Characterization of a novel thyrotropin-releasing hormone receptor, TRHR3, in chickens**
Poultry Science. 2020, 99(3):1643-1654. doi: [10.1016/j.psj.2019.10.062](https://doi.org/10.1016/j.psj.2019.10.062)
 • Li, Xiaoxiao[#]; Li, Zhengyang[#]; Deng, Yue; **Zhang, Jiannan**; Li, Juan^{*}; Wang, Yajun^{*};
- **Characterization of the neuropeptide FF (NPFF) gene in chickens: evidence for a single bioactive NPAF peptide encoded by the NPFF gene in birds**
Domestic Animal Endocrinology. 2020, :106435. doi: [10.1016/j.domaniend.2020.106435](https://doi.org/10.1016/j.domaniend.2020.106435)
 • Chen, J[#]; Huang, S[#]; **Zhang, J**; Li, J^{*}; Wang, Y^{*};
- **Arginine vasotocin (AVT)/mesotocin (MT) receptors in chickens: Evidence for the possible involvement of AVT-AVPR1 signaling in the regulation of oviposition and pituitary prolactin expression**
General and Comparative Endocrinology. 2019, 281:91-104. doi: [10.1016/j.ygcen.2019.05.013](https://doi.org/10.1016/j.ygcen.2019.05.013)
 • Wu, Chao; Lv, Can; Wan, Yiping; Li, Xiaoxiao; **Zhang, Jiannan**^{*}; Li, Juan; Wang, Yajun^{*};
- **Regulation of Pituitary Cocaine-and Amphetamine-Regulated Transcript Expression and Secretion by Hypothalamic Gonadotropin-Releasing Hormone in Chickens**
Frontiers in physiology. 2019, 10:. doi: [10.3389/fphys.2019.00882](https://doi.org/10.3389/fphys.2019.00882)
 • Mo, Chunheng; Lv, Can; Huang, Long; Li, Zhengyang; **Zhang, Jiannan**; Li, Juan^{*}; Wang, Yajun^{*};
- **Endothelins (EDN1, EDN2, EDN3) and their receptors (EDNRA, EDNRB, EDNRB2) in chickens: Functional analysis and tissue distribution**
General and comparative endocrinology. 2019, 283:113231. doi: [10.1016/j.ygcen.2019.113231](https://doi.org/10.1016/j.ygcen.2019.113231)
 • Liu, Haikun; Luo, Qin; **Zhang, Jiannan**; Mo, Chunheng; Wang, Yajun^{*}; Li, Juan^{*};
- **Identification of a Novel Functional Corticotropin-Releasing Hormone (CRH2) in Chickens and Its Roles in Stimulating Pituitary TSH β Expression and ACTH Secretion**
Frontiers in Endocrinology. 2019, 10:595. doi: [10.3389/fendo.2019.00595](https://doi.org/10.3389/fendo.2019.00595)
 • Bu, Guixian[#]; Fan, Jie[#]; Yang, Ming; Lv, Can; Lin, Yin; Li, Jinxuan; Meng, Fengyan; Du, Xiaogang; Zeng, Xianyin^{*}; **Zhang, Jiannan**; Juan Li; Yajun Wang^{*}
- **Characterization of the Apelin/Elabela Receptors (APLNR) in Chickens, Turtles, and Zebrafish: Identification of a Novel Apelin-Specific Receptor in Teleosts**
Frontiers in endocrinology. 2018, 9:756. doi: [10.3389/fendo.2018.00756](https://doi.org/10.3389/fendo.2018.00756)
 • **Zhang, Jiannan**; Zhou, Yawei; Wu, Chenlei; Wan, Yiping; Fang, Chao; Li, Jing; Fang, Wenqian; Yi, Ran; Zhu, Guoqiang; Li, Juan^{*}; Yajun Wang^{*}



2019

2018

- **The orphan G protein-coupled receptor 25 (GPR25) is activated by Apelin and Apela in non-mammalian vertebrates**
Biochemical and Biophysical Research Communications. 2018, 501(2):408-414. doi: [10.1016/j.bbrc.2018.04.229](https://doi.org/10.1016/j.bbrc.2018.04.229)
 • Zhang, Jiannan[#]; Wan, Yiping[#]; Fang, Chao; Chen, Junan; Ouyang, Wangan; Li, Juan^{*}; Wang, Yajun^{*};
- **Characterization of neuromedin U (NMU), neuromedin S (NMS) and their receptors (NMUR1, NMUR2) in chickens**
Peptides. 2018, 101:69-81. doi: [10.1016/j.peptides.2017.12.022](https://doi.org/10.1016/j.peptides.2017.12.022)
 • Wan, Yiping[#]; Zhang, Jiannan[#]; Fang, Chao; Chen, Junan; Li, Jing; Li, Juan^{*}; Wu, Chenlei; Wang, Yajun^{*};
- 2017 ● **The interaction of MC3R and MC4R with MRAP2, ACTH, α -MSH and AgRP in chickens**
Journal of Endocrinology. 2017, 234(2):155-174. doi: [10.1530/JOE-17-0131](https://doi.org/10.1530/JOE-17-0131)
 • Zhang, Jiannan; Li, Xin; Zhou, Yawei; Cui, Lin; Li, Jing; Wu, Chenlei; Wan, Yiping; Li, Juan^{*}; Wang, Yajun^{*};
 • Impact Factor = 4.706
- **Molecular characterization of neuropeptide Y (NPY) receptors (Y1, Y4 and Y6) and investigation of the tissue expression of their ligands (NPY, PYY and PP) in chickens**
General and comparative endocrinology. 2017, 240:46-60. doi: [10.1016/j.ygcen.2016.09.005](https://doi.org/10.1016/j.ygcen.2016.09.005)
 • Gao, Shunyu[#]; Zhang, Jiannan[#]; He, Chen; Meng, Fengyan; Bu, Guixian; Zhu, Guoqiang; Li, Juan^{*}; Wang, Yajun^{*};
- **Characterization of melanin-concentrating hormone (MCH) and its receptor in chickens: Tissue expression, functional analysis, and fasting-induced up-regulation of hypothalamic MCH expression**
Gene. 2017, 615:57-67. doi: [10.1016/j.gene.2017.03.009](https://doi.org/10.1016/j.gene.2017.03.009)
 • Cui, Lin; Lv, Can; Zhang, Jiannan; Mo, Chunheng; Lin, Dongliang; Li, Juan^{*}; Wang, Yajun^{*};
- 2016 ● **Molecular characterization of three NPY receptors (Y2, Y5 and Y7) in chickens: Gene structure, tissue expression, promoter identification, and functional analysis**
General and Comparative Endocrinology. 2016, 236:24-34. doi: [10.1016/j.ygcen.2016.04.019](https://doi.org/10.1016/j.ygcen.2016.04.019)
 • He, Chen[#]; Zhang, Jiannan[#]; Gao, Shunyu; Meng, Fengyan; Bu, Guixian; Li, Juan^{*}; Wang, Yajun^{*};
- 2014 ● **Identification and characterization of the free fatty acid receptor 2 (FFA2) and a novel functional FFA2-like receptor (FFA2L) for short-chain fatty acids in pigs: Evidence for the existence of a duplicated FFA2 gene (FFA2L) in some mammalian species**
Domestic animal endocrinology. 2014, 47:108-118. e1. doi: [10.1016/j.domaniend.2013.10.004](https://doi.org/10.1016/j.domaniend.2013.10.004)
 • Zhang, J; Cheng, S; Wang, Y^{*}; Yu, X; Li, J^{*};

- **Synthesis and biological evaluation of novel benzamide derivatives as potent smoothened antagonists**
Bioorganic & medicinal chemistry letters. 2014, 24(5):1426-1431. doi: [10.1016/j.bmcl.2014.01.006](https://doi.org/10.1016/j.bmcl.2014.01.006)
 • Wu, Tian-Ming; Wang, Dao-Cai; Xiang, Pu; **Zhang, Jian-Nan**; Sang, Ya-Xiong; Lin, Hong-Jun; Chen, Jie; Xie, Gang; Song, Hang; Zhao, Ying-Lan^{*};
- **Glucagon-like peptide (GCGL) is a novel potential TSH-releasing factor (TRF) in Chickens: I) Evidence for its potent and specific action on stimulating TSH mRNA expression and secretion in the pituitary**
Endocrinology. 2014, 155(11):4568-4580. doi: [10.1210/en.2014-1331](https://doi.org/10.1210/en.2014-1331)
 • Huang, Guian; He, Chen; Meng, Fengyan; Li, Juan; **Zhang, Jiannan**; Wang, Yajun^{*};

CONFERENCE PRESENTATIONS

- | | | |
|------|--|--|
| 2017 | <ul style="list-style-type: none"> ● 黑皮质素系统在家鸡能量平衡中的作用机理解析
 四川省细胞生物学会2017年度学术大会 |  Chengdu, CN |
| 2011 | <ul style="list-style-type: none"> ● 家鸡促甲状腺激素受体(cTSHR)的克隆、剪切变体鉴定及其功能分析
 第十六次全国动物遗传育种学术讨论会系列学术报告会 |  Yangzhou, CN |