

# QIQI XIE

Bioinformatics Scientist. Data scientist. Biologist. Master of Medicine.

I received the B.S. degree in Bachelor of Medicine from Nanchang University, City, China, in 2015, and the M.S. degree in Clinical Surgery from Lanzhou University, City, China, in 2019, and the Ph.D. degree in Oncology from Lanzhou University, China, in 2023.

I am currently a Senior Postdoctoral Research Associate at Indiana University Bloomington, focusing on cancer stem cells, NK and CAR NK immunotherapy.

Fluent in Bioinformatics, NGS analysis, scRNA-seq, and machine learning.



## 🎓 EDUCATION

to date  
|  
2023

- **Research Associate**

Indiana University Bloomington

📍 Bloomington, IN 47405

- Senior postdoctoral fellow

2022  
|  
2019

- **Ph.D. in Oncology**

Lanzhou University

📍 Gansu, CN

- SUV39H1 Maintains Cancer Stem Cells in Glioblastoma

2019  
|  
2016

- **Master of Orthopedics**

Lanzhou University

📍 Gansu, CN

- Mechanism of TRPM2-GSK3B Signaling Pathway in Diabetic Osteoporosis

2015  
|  
2010

- **Diploma of Clinical Medicine**

Nanchang University

📍 Jiangxi, CN

## CONTACT

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🐦 [QiqiXie](#)

🔗 <https://github.com/Qiqi-Xie>

🔗 <https://orcid.org/0000-0003-4099-5287>

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📞 (86) 15719612948  
<https://www.jianshu.com/u/bcb81276c29d>

<https://www.wolai.com/qiqixie>



## 📘 CERTIFICATE

2018

- **Outstanding Graduates**

📍 Lanzhou University

2016

- **National Scholarships**

📍 Lanzhou University

- **The First-Prize Scholarship**

📍 Lanzhou University

- **The Third-Prize Scholarship**

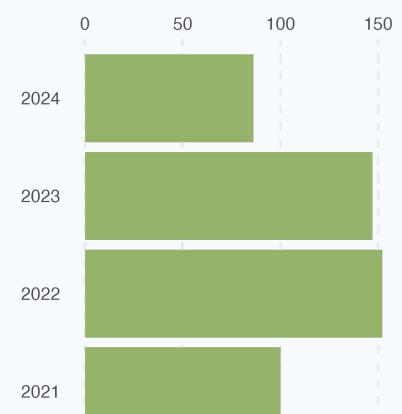
📍 Lanzhou University

## 🏆 Researcher

Citation = 524

H-index = 14

I10-index = 17



- 2014 • The Third-Prize Scholarship 📍 Nanchang University
- 2012 • The Second-Prize Scholarship 📍 Nanchang University
- 2011 • National College English Competition Encouragement Award 📍 Nanchang University

## ↳ GRANTS

- 2023 | 2022 • Qinghai Provincial Breast Center Key Specialty Construction  
Participation
- 2022 | 2021 • Popularization and application of early diagnosis and treatment technology for breast cancer in Qinghai Province  
Participation
- 2021 | 2020 • Study on the mechanism of single cell sequencing in bone metastasis of Breast Cancer  
Participation
- 2020 | 2019 • Pain mechanism and treatment of spinal diseases  
Participation
- The mechanism of exosome microRNAs in osteoporosis  
Participation
- 2019 | 2018 • Mechanism of TRPM2-GSK3B ta Signaling Pathway in Diabetic Osteoporosis  
Participation
- 2018 | 2017 • Endogenous cannabinoids regulate astrocyte-mediated pain: the MAPK-Glu-Gln shuttle pathway  
Participation

## ☰ PUBLICATIONS

- 2024 • Exploring GZMK as a prognostic marker and predictor of immunotherapy response in breast cancer: unveiling novel insights into treatment outcomes  
*J Cancer Res Clin Oncol*
  - Zitao Li, Qiqi Xie, Fuxing Zhao, Xinfia Huo, Dengfeng Ren, Zhilin Liu, Xiaofeng Zhou, Guoshuang Shen, Jiuda Zhao
  - SCI, IF=2.7, JCR Q3

- The correlation between systemic inflammatory markers and efficiency for advanced gastric cancer patients treated with ICIs combined with chemotherapy  
*Immunology*
  - Dong Q, Zhao F, Li Y, Shen G, Dong Q, Ren D, Wang M, Zhao Y, Liu Z, Ma J, Xie Q, Liu Z, Li Z, Gao L, Zhao J
  - SCI, IF=4.9, JCR Q2
- 2023 ● Correlation between mismatch repair and survival of patients with gastric cancer after 5-FU-based adjuvant chemotherapy  
*J Gastroenterol*
  - Zhao F, Li E, Shen G, Dong Q, Ren D, Wang M, Zhao Y, Liu Z, Ma J, Xie Q, Liu Z, Li Z, Gao L, Zhao J
  - SCI, IF=6.772, JCR Q1
- 2022 ● SKI knockdown suppresses apoptosis and extracellular matrix degradation of nucleus pulposus cells via inhibition of the Wnt/β-catenin pathway and ameliorates disc degeneration  
*Apoptosis*
  - Wu ZL, Chen YJ, Zhang GZ, Xie QQ, Wang KP, Yang X, Liu TC, Wang ZQ, Zhao GH, Zhang HH
  - SCI, IF=5.561, JCR Q2
- 2021 ● An Immune-Related Long Non-Coding RNA Signature to Predict the Prognosis of Ewing's Sarcoma Based on a Machine Learning Iterative Lasso Regression  
*Front Cell Dev Biol*
  - Enhui Ren, Yajun Deng, Wenhua Yuan, Guangzhi Zhang, Zuolong Wu, *Qiqi Xie\**
  - SCI, IF=6.681, JCR Q2
  - Corresponding\_author
- Development of a Machine Learning-Based Autophagy-Related lncRNA Signature to Improve Prognosis Prediction in Osteosarcoma Patients  
*Front Mol Biosci*
  - Guangzhi Zhang, Zuolong Wu, Chunying Li, Enhui Ren, Wenhua Yuan, Yajun Deng, *Qiqi Xie\**
  - SCI, IF=5.240, JCR Q3
  - Corresponding\_author
- Role of the Wnt pathway in the formation, development, and degeneration of intervertebral discs  
*Pathol Res Pract*
  - Zuo-Long Wu, *Qiqi Xie\**, Tai-Cong Liu, Xing Yang, Guang-Zhi Zhang, Hai-Hong Zhang
  - SCI, IF=3.250, JCR Q4
  - Co-first\_authors

- 2020
- Screening of osteoarthritis diagnostic markers based on immune-related genes and immune infiltration  
*Scientific Reports*
    - Wenhua Yuan, *Qiqi Xie\**, Keping Wang, Wei Sheng, Xiaofei Feng, Zheng Liu, Jintao Shi, Xiaobo Zhang, Kai Zhang, Yajun Deng, Haiyu Zhou
    - SCI, IF=4.371, JCR Q3
    - Co-first\_authors
  - A four-methylated LncRNA signature predicts survival of osteosarcoma patients based on machine learning  
*Genomics*
    - Yajun Deng, Wenhua Yuan, Enhui Ren, Guangzhi Zhang, Zuolong Wu, *Qiqi Xie\**
    - SCI, IF=5.732, JCR Q3
    - Corresponding\_author
  - An immune-related gene signature for determining Ewing sarcoma prognosis based on machine learning  
*Journal of Cancer Research and Clinical Oncology*
    - Enhui Ren, Yajun Deng, Wenhua Yuan, Zuolong Wu, Guangzhi Zhang, *Qiqi Xie\**
    - SCI, IF=4.550, JCR Q3
    - Corresponding\_author
  - Development of a novel immune-related genes prognostic signature for osteosarcoma  
*Scientific Reports*
    - Zuolong Wu, Guangzhi Zhang, Yajun Deng, Enhui Ren, Wenhua Yuan, *Qiqi Xie\**
    - SCI, IF=4.371, JCR Q3
    - Corresponding\_author
  - Protein Kinase A Is Involved in Neuropathic Pain by Activating the p38MAPK Pathway to Mediate Spinal Cord Cell Apoptosis  
*Mediators of Inflammation*
    - Yajun Deng, Liang Yang, *Qiqi Xie*, Fengbiao Yang, Guoqiang Li, Guangzhi Zhang, Shaoping Li, Zuolong Wu, Jing Wang, Xuewen Kang\*
    - SCI, IF=4.711, JCR Q3
    - Co-first\_authors
  - MCM2 and NUSAP1 Are Potential Biomarkers for the Diagnosis and Prognosis of Pancreatic Cancer  
*BioMed Research International*
    - Yajun Deng, Hanyun Ma, Jinyong Hao\*, *Qiqi Xie\**, Ruochen Zhao\*
    - SCI, IF=3.411, JCR Q3
    - Corresponding\_author

2019

- Decreased expression of NUSAP1 predicts poor overall survival in cervical cancer  
*Journal of Cancer*
  - Qiqi Xie, Wen Ou-yang, Mingwei Zhang, Huimei Wang, Qiuyuan Yue\*
  - SCI, IF=4.200, JCR Q3
  - First\_authors
- GRB10 and E2F3 as Diagnostic Markers of Osteoarthritis and Their Correlation with Immune Infiltration  
*Diagnostics*
  - Yajun Deng, Enhui Ren, Wenhua Yuan , Guangzhi Zhang, Zuolong Wu, Qiqi Xie\*
  - SCI, IF=3.701, JCR Q3
  - Corresponding\_author
- Identification of a novel autophagy-related gene signature for predicting metastasis and survival in patients with osteosarcoma  
*Research Square*
  - Guangzhi Zhang, Yajun Deng, Zuolong Wu, Enhui Ren, Wenhua Yuan, Qiqi Xie\*
  - SCI
  - Corresponding\_author
- Identification of diagnostic markers for major depressive disorder by cross-validation of data from whole blood samples  
*PeerJ*
  - Huimei Wang, Mingwei Zhang, Qiqi Xie, Jin Yu, Yan Qi, Qiuyuan Yue\*
  - SCI, IF=2.984, JCR Q3
- Anterior versus posterior decompression for the treatment of thoracolumbar fractures with spinal cord injury:a Meta-analysis  
*China journal of orthopaedics and traumatology*
  - Enhui Ren, Yajun Deng, Qiqi Xie, Liang Yang, Guangzhi Zhang, Shaoping Li, Zuolong Wu, Jing Wang, Xuewen Kang\*
  - SCI
- Identification of potential diagnostic and therapeutic target genes for lung squamous cell carcinoma  
*Oncology Letters*
  - Nana Zhang, Hong Wang, Qiqi Xie, Hua Cao, Fanqi Wu, Dan Bei Di Wu, Yixin Wan\*
  - SCI, IF=2.860, JCR Q4
  - Co-first\_authors

- **Integrative analyses of genes associated with idiopathic pulmonary fibrosis**

*Journal of Cellular Biochemistry*

- Huimei Wang, **Qiqi Xie**, Wen Ou\_Yang, Mingwei Zhang<sup>\*</sup>
- SCI, IF=4.423, JCR Q3

- **Slow skeletal muscle troponin T, titin and myosin light chain 3 are candidate prognostic biomarkers for Ewing's sarcoma**

*Oncology Letters*

- Yajun Deng, **Qiqi Xie**, Guangzhi Zhang, Shaoping Li, Zuolong Wu, Zhanjun Ma, Xuegang He, Yicheng Gao, Yonggang Wang, Xuwen Kang, Jing Wang<sup>\*</sup>
- SCI, IF=2.860, JCR Q4
- Co-first\_authors

- **2-arachidonyl glycerol modulates astrocytic glutamine synthetase via p38 and ERK1/2 pathways**

*Journal of Neuroinflammation*

- Shenghong Wang, Hua Zhang, Bin Geng, **Qiqi Xie**, Wenzhou Li, Yajun Deng, Weidong Shi, Yunyan Pan, Xuwen Kang, Jing Wang<sup>\*</sup>
- SCI, IF=8.324, JCR Q2

- **High-affinity glutamate transporters and chronic pain**

*Journal of Central South University (Medical Sciences)*

- Zhang H, Wang S, **Qiqi Xie**, Li W, Shi W, Ma J, Wang J<sup>\*</sup>
- CSCD
- Article in chinese

2018

- **Bioinformatics analysis of gene chip data related to early pathological pain induced by SNI rat model**

*Life Science Research*

- Xie Q, Li W, Shi W, Deng Y, Ren E, Ma J, Kang X, Wang J<sup>\*</sup>
- CSCD, First\_authors
- Article in chinese

- **Advances in application of gemstone energy spectrum CT in skeletal system**

*Life science Research*

- Xie Q, Li W, Shi W, Deng Y, Ren E, Ma J, Kang X, Wang J<sup>\*</sup>
- CSCD, First\_authors
- Article in chinese

- Bioinformatics analysis of osteoarthritis expression profile microarray integration

*Hua Zhong Ke Ji Da Xue Xue Bao Yi Xue Ban*

- Xie Q, Li W, Shi W, Deng Y, Ren E, Ma J, Kang X, Wang J\*
- CSCD, First\_authors
- Article in chinese

- Effects of diabetes on bone biomechanics in ovariectomized rats

*Chinese Journal of Medical Physics*

- Xie Q, Li W, Shi W, Deng Y, Ren E, Ma J, Pan Y, Kang X, Wang J\*
- CSCD, First\_authors
- Article in chinese

- Selection of sites for detecting bone mineral density in diabetic osteoporosis rats by DXA

*Chinese Journal of Medical Physics*

- Li W, Xie Q, Ren E, Deng Y, Pan Y, Ma J, Kang X, Wang J\*
- CSCD, Co-first\_authors
- Article in chinese

- Visual analysis of related literature on quantitative computed tomography in diagnosis of osteoporosis

*Chinese Journal of Medical Physics*

- Deng Y, Xie Q, Li W, Shi W, Ma J, Pan Y, Kang X, Wang J\*
- CSCD, Co-first\_authors
- Article in chinese

- The expression and clinical significance of formyl peptide receptor 1 in glioma were analyzed based on bioinformatics

*Cancer, aberration, mutation*

- Dong Q, Xie Q, Hu J, Wang M, Yuan G, Pan Y\*
- CSCD, Co-first\_authors
- Article in chinese

- The correlation between quantitative parameters of EDCT and bone biomechanics

*Chinese Journal of Medical Physics*

- Dong Q, Xie Q, Zhao R, Huang X, Li W, Zhang Y, Pan Y\*
- CSCD, Co-first\_authors
- Article in chinese

- Preliminary study on the evaluation of biomechanics by EDCT

*Chinese Journal of Medical Physics*

- Huang X, Xie Q, Deng Y, Zhao R, Dong Q, Zhou J\*
- CSCD, Co-first\_authors
- Article in chinese

## ● Progress in the study of skeletal endocrine function

### *Life science Research*

- Li W, Xie Q, Shi W, Deng Y, Ma Y, Xie J, Kang X, Wang J\*
- CSCD, Co-first\_authors
- Article in chinese



## CONFERENCE PROCEEDINGS

2020  
|  
2018

- The 3<sup>th</sup> Academic Conference of Chinese Medical Association on Osteoporosis and Bone Mineral Salt Diseases 📍 Shanxi, CN
- The 9<sup>th</sup> International Symposium on Osteoporosis and Bone Mineral Salt Diseases 📍 Suzhou, CN
- The 13<sup>th</sup> Annual Congress of Chinese Orthopaedic Association 📍 Xiamen, CN



## PROFESSIONAL SKILLS

### Wet-lab Experimental

- I am good at Immunohistochemistry, Immunofluorescence, Western Blot, RT-PCR, RNAi, Exosome identification, Open-field Test, Water Maze Test, Forced Swimming Test, Von Frey Hair Test, Cold Hot Plate Test, and Tereotactic Injection.

### Experimental instruments

- I can operate the following experimental instruments: micro-drop PCR system, automatic protein expression quantitative system, high-content live cell imaging quantitative analysis system and cell metabolic analyzers.

### Software

- I have advanced experience in using Microsoft Office, Illustrator, Photoshop, GraphPad Prism, SPSS, ImageJ, Image-Pro Plus, Cytoscape, Funrich.

### Statistics

- I have moderate experience in using R and Python for statistical modeling and data visualization.

### Machine learning

- I know how to do machine learning (including deep learning) and have applied some technologies to my projects.

### Data analysis

- I have advanced experience in using R and Shell for data preprocessing, data cleaning and data interpretation. RNA-seq, ChIP-seq, ATAC-seq, scRNA-seq, scATAC-seq Analysis. Spatial Transcriptomics.