

CURRICULUM VITAE

Jun Miao

Address: Division of Infectious Diseases and International Medicine
Department of Internal Medicine
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University of South Florida
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EDUCATION

1985-1991 **M.D.** The Fourth Military Medical University, Xi'an, China
1993-1997 **Master of Medical Sciences**, Molecular Microbiology
Department of Parasitology, The Fourth Military Medical University
Thesis title: Cellular immune response to a *Plasmodium falciparum* hybrid recombinant antigen in mice (Advisor: Dr. Caifang Xue).
1997-1999 **Ph.D.**, Molecular Microbiology
Department of Parasitology, The Fourth Military Medical University
Thesis title: Construction of a *P. falciparum* MSP-1 C-terminal region-based hybrid nucleic acid vaccine and protective immunity (Advisor: Dr. Caifang Xue).
2000-2004 **Postdoctoral Scholar**
Center for Molecular biology, University Heidelberg, Germany
Advisor: Dr. Hermann Bujard (former director of EMBO)

PROFESSIONAL POSITIONS

10/2018- **Assistant Professor**
Department of Internal Medicine, University of South Florida
07/2016-09/2018 **Senior Research Scientist**
Department of Entomology, Pennsylvania State University
2012- 2016 **Senior Research Associate**
Department of Entomology, Pennsylvania State University
2005-2012 **Research Associate**
Department of Entomology, Pennsylvania State University
2004-2005 **Associate professor**
Department of Parasitology, The Fourth Military Medical University
1991-1993 **Lecturer**
Department of Parasitology, The Fourth Military Medical University

FUNDED PROJECTS AND GRANTS

Pending

<u>Date</u>	<u>Title, Submitted to:</u>
Feb. 2020	Malaria parasite harbors a unique protein lysine methyltransferase targeting both chromatin and motility machinery 1R21AI173856-01 NIAID, NIH PI: Jun Miao

In Progress

<u>Date</u>	<u>Title, Submitted to:</u>	<u>Amount</u>
2017-2024	Southeast Asia Malaria Research Center 2U19AI089672-08 NIAID, NIH. PI: Liwang Cui, Co-Investigator: Jun Miao	\$9,353,113
2020-2022	Development of CRISPR/dCas-based epigenetic gene regulation tools in malaria parasite 1R21AI149202-01A1 NIAID, NIH. PI: Jun Miao	\$411,125

Completed

<u>Date</u>	<u>Title, Submitted to:</u>	<u>Amount</u>
2016-2021	Molecular Mechanisms of Artemisinin Resistance 1R01AI128940-0101 NIAID, NIH. PI: Liwang Cui, Co-Investigator: Jun Miao	\$1,000,000
2016-2018	Transcriptomes and Proteomes of <i>Plasmodium vivax</i> 1R21AI123934-01 NIAID, NIH. PI: Liwang Cui, Co-Investigator: Jun Miao	\$386,358
2014-2018	Puf-Mediated Translation Control in <i>Plasmodium falciparum</i> . 1R01AI104946-01A1 NIAID, NIH. PI: Liwang Cui, Co-Investigator: Jun Miao	\$1,825,356
2015-2016	Identification of Clathrin-coated Vesicles in <i>Plasmodium falciparum</i> and its Host Erythrocyte by Advanced Energy-filtered Transmission Electron Microscopy. Huck Biotechnology and Material Research Institute of Pennsylvania State University PI: Jun Miao	\$10,000
2012-2014	Sex-specific gene expression in malaria parasite <i>Plasmodium falciparum</i> . 1R21AI098058-01A1 NIAID, NIH. PI: Liwang Cui, Co-PI: Jun Miao	\$ 405,350
2004-2005	Protective immune response induced by the combination of <i>P.f</i> MSP1 and AMA1 based protein, DNA and rMVA vaccines Research grant from WHO/TDR. ID. No. A30215 PI: Jun Miao, Co-investigator: Liwang Cui and Hermann Bujard	\$ 12,000
2000-2002	Construction of inducible transgenic <i>Plasmodium falciparum</i> system. National Natural Science Foundation of China. ID. No. 39900128 PI: Jun Miao	\$ 30,000
1993-1995	Cellular immune response to a <i>Plasmodium falciparum</i> hybrid recombinant antigen in mice. WHO/TDR (a program for training graduate students). No. 920048 PI: Jun Miao	\$ 5,000

HONORS AND AWARDS

- Sept. 2013 Award for best poster at 24th Molecular Parasitology Meeting at Woods Hole, MA, USA
- 2000-2004 DAAD (German academic exchange service) postdoctoral research scholarship
- 2003 Travel award from WHO/TDR to attend the International Training Workshop on Microarray Technology for Malaria Parasites, Thailand
- July. 1997 Travel award for attending the 10th International Congress of Protozoology, Sydney, Australia

PUBLICATIONS

Book Chapters

1. Miao J. (1996) "Parasitology" pp.177-188. in "*English Readings in the Basic Medical sciences---A companion for Chinese Medical students*". Eds. Huizi Su and Huimin Li. Chinese Military Medical Press, China.
2. Bártfai R, Horrocks P, Cui L, Miao J. (2010) Chromatin structure and function in book "encyclopedia of malaria". Eds: Marcel Hommel and Peter G. Kremsner, publisher: Springer (invited book chapter).

International Patent

Inventors: Gerd Sutter, Hermann Bujard, Nicole Westerfeld and Jun Miao.

International Patent No. PCT/EP2003/01073 (DE10249390.1, EP03769329.8, US10/532,067)

Title "Recombinant MVA strains as potential vaccines against *P. falciparum* malaria"

Manuscripts under revision

1. Hui Min, Chengqi Wang, Xiaoying Liang, Rachasak Boonhok, Awtum M. Brashear, Xiaolian Li, Allen M. Minns, Swamy Rakesh Adapa, Rays H. Y. Jiang, Gang Ning, Yaming Cao, Scott E. Lindner, Jun Miao^{1*}, Liwang Cui^{1*} The DEAD-box RNA helicase PfDOZI imposes opposing actions on RNA metabolism in *Plasmodium falciparum* **Nature Communications** (under major revision) * Corresponding author
2. Sony Shrestha, Amuza Byaruhanga Lucky, Awtum Brashear, Xiaolian Li, Liwang Cui, Jun Miao^{*} Distinct histone post-translational modifications during *Plasmodium falciparum* gametocyte development **Journal of Proteome Research** (under revision) * Corresponding author

Articles Published in Refereed Journals (IF: Impact factor)

3. Liang X, Boonhok R, Siddiqui FA, Xiao B, Li X, Qin J, Min H, Jiang L, Cui L, Miao J^{*}. (2022) A Leak-Free Inducible CRISPRi/a System for Gene Functional Studies in *Plasmodium falciparum*. **Microbiology Spectrum** 2022 May 5:e0278221. doi: 10.1128/spectrum.02782-21. Epub ahead of print. PMID: 35510853. * Corresponding author (7.171)
4. Miao J^{*}, Wang C, Lucky AB, Liang X, Min H, Adapa SR, Jiang R, Kim K, Cui L^{*}. (2021) A unique GCN5 histone acetyltransferase complex controls erythrocyte invasion and virulence in the malaria parasite *Plasmodium falciparum*, **PLoS Pathog.** **17**, e1009351. * Corresponding author (6.823)

5. Huang G, Solano CM, Melendez J, Yu-Alfonzo S, Boonhok R, Min H, Miao J, Chakrabarti D, Yuan Y. Discovery of fast-acting dual-stage antimalarial agents by profiling pyridylvinylquinoline chemical space via copper catalyzed azide-alkyne cycloadditions. **Eur J Med Chem.** 2021 Jan 1;209:112889. doi: 10.1016/j.ejmech.2020.112889. Epub 2020 Oct 4. PubMed PMID: 33045660; PubMed Central PMCID: PMC7744367. (IF:5.572)
6. Huang Z, Li R, Tang T, Ling D, Wang M, Xu D, Sun M, Zheng L, Zhu F, Min H, Boonhok R, Ding Y, Wen Y, Chen Y, Li X, Chen Y, Liu T, Han J, Miao J, Fang Q, Cao Y, Tang Y, Cui J, Xu W, Cui L, Zhu J, Wong G, Li J, Jiang L, (2020) A novel multistage antimalarial inhibitor targeting Plasmodium falciparum histone deacetylase 1. **Cell Discovery.** 6(1):93. doi: 10.1038/s41421-020-00215-4. (IF:11.981)
7. Huang G, Solano CM, Melendez J, Yu-Alfonzo S, Boonhok R, Min H, Miao J, Chakrabarti D, Yuan Y (2020) Discovery of fast-acting dual-stage antimalarial agents by profiling pyridylvinylquinoline chemical space via copper catalyzed azide-alkyne cycloadditions. **Eur J Med Chem.** 209:112889. doi: 10.1016/j.ejmech.2020.112889. Epub ahead of print. PMID: 33045660. (IF:5.572)
8. Brashear AM, Huckaby AC, Fan Q, Dillard LJ, Hu Y, Li Y, Zhao Y, Wang Z, Cao Y, Miao J, Guler JL, Cui L (2020) New *Plasmodium vivax* Genomes From the China-Myanmar Border. **Front Microbiol.** 11;11:1930. doi: 10.3389/fmicb. (IF: 4.190)
9. Brashear AM, Fan Q, Hu Y, Li Y, Zhao Y, Wang Z, Cao Y, Miao J, Barry A, Cui L (2020) Population genomics identifies a distinct Plasmodium vivax population on the China-Myanmar border of Southeast Asia. **PLoS Negl Trop Dis.** 14(8):e0008506. doi: 10.1371/journal.pntd.0008506. PMID: 32745103 (IF: 4.400)
10. Zheng W, Liu F, Du F, Yang F, Kou X, He Y, Feng H, Fan Q, Luo E, Min H, Miao J, Cui L, Cao Y (2020) Characterization of a Sulfhydryl Oxidase From *Plasmodium berghei* as a Target for Blocking Parasite Transmission. **Front Cell Infect Microbiol.** 10:311. doi: 10.3389/fcimb.2020.00311. PMID: 32670896 (IF: 3.520)
11. Li J, Zhang J, Li Q, Hu Y, Ruan Y, Tao Z, Xia H, Qiao J, Meng L, Zeng W, Li C, He X, Zhao L, Siddiqui FA, Miao J, Yang Z, Fang Q, Cui L (2020). Ex vivo susceptibilities of Plasmodium vivax isolates from the China-Myanmar border to antimalarial drugs and association with polymorphisms in Pvmdr1 and Pvcr1 genes. **PLoS Negl Trop Dis.** 14(6):e0008255. doi: 10.1371/journal.pntd.0008255. (IF: 4.400)
12. Gibbons J, Qin J, Malla P, Wang Z, Brashear A, Wang C, Miao J, Adams JH, Kim K, Jiang R, Cui L. (2020) Lineage-specific expansion of Plasmodium falciparum parasites with pfrp2 deletion in the Greater Mekong Subregion. **J Infect Dis.** jiaa250. doi: 10.1093/infdis/jiaa250. Online ahead of print. (IF: 5.045)
13. Siddiqui F, Boonhok R, Cabrera M, Ngassa Mbenda HG, Wang M, Min H, Liang X, Qin J, Zhu X, Miao J, Cao Y, Cui L. (2020) The role of PfK13 mutations in Plasmodium falciparum populations from northeastern Myanmar in mediating artemisinin resistance **mBio.** 2020 Feb 25;11(1):e01134-19. doi: 10.1128/mBio.01134-19. (IF: 6.500)

14. Hoeijmakers WAM, Miao J, Schmidt S, Toenhake CG, Shrestha S, Venhuizen J, Henderson R, Birnbaum J, Ghidelli-Disse S, Drewes G, Cui L, Stunnenberg HG, Spielmann T, Bártfai R. (2019) Epigenetic reader complexes of the human malaria parasite, *Plasmodium falciparum*. **Nucleic Acids Res.** 47(22):11574-11588. doi: 10.1093/nar/gkz1044. (IF: 11.501)
15. Brashear AM, Roobsoong W, Siddiqui FA, Nguitrageol W, Sattabongkot J, López-Urbe MM, Miao J, Cui L. (2019) A glance of the blood stage transcriptome of a Southeast Asian *Plasmodium ovale* isolate. **PLoS Negl Trop Dis** 13(11): e0007850. (IF: 3.885)
16. Liu F, Liu Q, Yu C, Zhao Y, Wu Y, Min H, Qiu Y, Jin Y, Miao J, Cui L, Cao Y. (2019) An MFS-Domain Protein Pb115 Plays a Critical Role in Gamete Fertilization of the Malaria Parasite *Plasmodium berghei*. **Front Microbiol** 10:2193. doi: 10.3389/fmicb.2019.02193. eCollection 2019. (IF: 4.259)
17. Li Z, Yin S, Sun M, Cheng X, Wei J, Gilbert N, Miao J, Cui L, Huang Z, Dai X, Jiang L. (2019) DNA helicase RecQ1 regulates mutually exclusive expression of virulence genes in *Plasmodium falciparum* via heterochromatin alteration. **Proc Natl Acad Sci U S A.** 116(8):3177-3182. doi: 10.1073/pnas.1811766116. Epub 2019 Feb 6. PubMed PMID: 30728298; PubMed Central PMCID: PMC6386683. (IF: 9.412)
18. Zhang J, Li N, Siddiqui FA, Xu S, Geng J, Zhang J, He X, Zhao L, Pi L, Zhang Y, Li C, Chen X, Wu Y, Miao J, Cao Y, Cui L, Yang Z. (2019) In vitro susceptibility of *Plasmodium falciparum* isolates from the China-Myanmar border area to artemisinin and correlation with K13 mutations. **Int J Parasitol Drugs Drug Resist.** 10:20-27. doi: 10.1016/j.ijpddr.2019.04.002. [Epub ahead of print] PubMed PMID: 31009824; PubMed Central PMCID: PMC6479106. (IF: 3.009)
19. Marin-Mogollon C, van de Vegte-Bolmer M, van Gemert G, van Pul F, Ramesar J, Othman AS, Kroeze H, Miao J, Cui L, Williamson KC, Sauerwein RW, Janse CJ, Khan SM. (2018) The *Plasmodium falciparum* male gametocyte protein P230p, a paralog of P230, is vital for ookinete formation and mosquito transmission. **Sci Rep.** 8:14902 | DOI:10.1038/s41598-018-33236-x (IF: 4.011)
20. Choi G, Prince T, Miao J, Cui L, Guan W. (2018) Sample-to-answer palm-sized nucleic acid testing device towards low-cost malaria mass screening. **Biosens Bioelectron.** 115:83-90. doi: 10.1016/j.bios.2018.05.019. Epub 2018 May 19. PubMed PMID: 29803865; PubMed Central PMCID: PMC6459019. (IF: 10.257)
21. Siddiqui FA, Cabrera M, Wang M, Brashear A, Kemirembe K, Wang Z, Miao J, Chookajorn T, Yang Z, Cao Y, Dong G, Rosenthal PJ, Cui L. (2018) *Plasmodium falciparum* falcipain-2a polymorphism in Southeast Asia and their association with artemisinin resistance. **J Infect Dis.** doi: 10.1093/infdis/jiy188. (IF: 6.273)
22. Liang X, Hart KJ, Dong G, Siddiqui FA, Sebastian A, Li X, Albert I, Miao J, Linder SE, Cui L. (2018) Puf3 partipates in ribosomal biogenesis in malaria parasites. **J Cell Sci.** pii: jcs.212597. doi: 10.1242/jcs.212597. (IF: 4.431)

23. Miao J, Chen Z, Wang Z, Shrestha S, Li X, Li R, Cui L. (2017) Sex-specific biology of the human malaria parasite revealed from the proteomes of mature male and female gametocytes. **Mol Cell Proteomics**. 16(4):537-551. doi: 10.1074/mcp.M116.061804. Epub 2017 Jan 26. (IF: 6.54)
24. Yang Y, Chen Z, Miao J, Cui L, Guan W. (2017) High-throughput and label-free parasitemia quantification and stage differentiation for malaria-infected red blood cells. **Biosens Bioelectron**. 98:408-414. doi: 10.1016/j.bios.2017.07.019. Epub 2017 Jul 8.
25. Choi G, Song D, Shrestha S, Miao J, Cui L, Guan W. (2016) A field-deployable mobile molecular diagnostic system for malaria at the point of need. **Lab Chip**. 16:4341-4349. (IF: 5.586)
26. Chen Z, Li W, Choi G, Yang X, Miao J, Cui L, Guan W. (2016) Arbitrarily accessible 3d microfluidic device for combinatorial high-throughput drug screening. **Sensors** 16(10): 1616 (IF: 2.033)
27. Wang Z, Cabrera M, Yang J, Yuan L, Gupta B, Liang X, Kemirembe K, Shrestha S, Brashear A, Li X, Porcella SF, Miao J, Yang Z, Su XZ, Cui L. (2016) Genome-wide association analysis identifies genetic loci associated with resistance to multiple antimalarials in *Plasmodium falciparum* from China-Myanmar border. **Sci Rep**. 6:33891. doi: 10.1038/srep33891. (IF: 5.228)
28. Shrestha S, Li X, Ning G, Miao J*, Cui L*. (2016) The RNA-binding protein PfPuf1 functions in the maintenance of gametocytes in *Plasmodium falciparum*. **J Cell Sci**. 129:3144-52. doi: 10.1242/jcs.186908. Epub 2016 Jul 6. *Corresponding author (IF: 4.706)
29. Wang Z, Wang Y, Cabrera M, Zhang Y, Gupta B, Wu Y, Kemirembe K, Hu Y, Liang X, Brashear A, Shrestha S, Li X, Miao J, Sun X, Yang Z, Cui L. (2015) Artemisinin resistance at the China-Myanmar border and association with mutations in the K13 propeller gene. **Antimicrob Agents Chemother**. 59:6952-6959 (IF: 4.672)
30. Wang Z, Shrestha S, Li X, Miao J, Yuan L, Cabrera M, Grube C, Yang Z, Cui L. (2015) Prevalence of K13-propeller polymorphisms in *Plasmodium falciparum* from China-Myanmar border in 2007-2012. **Malar J**. 14:168. (IF: 3.40)
31. Cui L, Linder S, Miao J. (2015) Translational regulation during stage transitions in malaria parasites. invited reviewer paper. **Annals NY Acad Sci**. 1342: 1-9 (IF: 4.364)
32. Putaporntip C*, Miao J*, Kuamsab N, Sattabongkot J, Sirichaisinthop J, Jongwutuwes S, Cui L. (2014) The *Plasmodium vivax* merozoite surface protein 3 β sequence reveals contrasting parasite populations in southern and northwestern Thailand. **PLoS Negl Trop Dis** 8(11): e3336. doi: 10.1371/journal.pntd.0003336 * Co-first author. (IF: 4.489)
33. Goel S, Muthusamy A, Miao J, Cui L, Salanti A, Winzeler E, Gowda C. (2014) Targeted disruption of a ring-infected erythrocyte surface antigen (RESA)-like export protein gene in *Plasmodium falciparum* confers stable chondroitin 4-sulfate cytoadherence capacity. **J Biol Chem**. 289(49):34408-21. (IF: 4.6)
34. Gupta B, Xu S, Wang Z, Sun L, Miao J, Cui L, Yang Z. (2014) *Plasmodium falciparum* multidrug resistance protein 1 (*Pfmdr1*) gene and its association with *in vitro* drug

susceptibility of parasite isolates from northeast Myanmar. **J Antimicrob Chemother.** 69(8):2110-7. (IF: 5.338)

35. Wang Z, Liu M, Liang X, Siriwat S, Li X, Chen X, Parker DM, Miao J, Cui L. (2014) A flow cytometry-based quantitative drug sensitivity assay for all *Plasmodium falciparum* Gametocyte Stages. **PLoS One** 15;9(4): e93825. (IF: 3.73)
36. Liu M, Miao J, Liu T, Sullivan WJ Jr, Cui L, Chen X. (2014) Characterization of TgPuf1, a member of the Puf family RNA-binding proteins from *Toxoplasma gondii*. **Parasite Vectors.** 7(1) 141. (IF: 3.246)
37. Miao J, Wang Z, Li X, Liu M, Cui L. (2013) *Plasmodium falciparum*: Generation of pure gametocyte culture by heparin treatment. **Exp Parasitol.** 135(3):541-5. (IF: 2.12)
38. Childs RA, Miao J, Cui L. (2013) An alternative protocol for *Plasmodium falciparum* culture synchronization and a new method for synchrony confirmation. **Malar J.** 12:386. (IF: 3.40)
39. Miao J, Lawrence M, Jeffers V, Zhao F, Parker D, Ge Y, Sullivan WJ Jr, Cui L. (2013) Extensive lysine acetylation occurs in evolutionarily conserved metabolic pathways and parasite-specific functions during *Plasmodium falciparum* intraerythrocytic development. **Mol Microbiol.** 89(4):660-75 (IF: 5.01)
40. Miao J, Fan Q, Parker D, Li X, Li J, Cui L. (2013) Puf Mediates Translation Repression of a Transmission-Blocking Vaccine Candidate of the Malaria Parasite through 5'UTR. **PLoS Pathogens** 9(4): e1003268. doi:10.1371/journal.ppat.1003268 (IF: 9.127)
41. Cui L, Wang Z, Miao J, Miao M, Chandra R, Jiang H, Su XZ, Cui L. (2012) Mechanisms of *in vitro* resistance to dihydroartemisinin in *Plasmodium falciparum*. **Mol Microbiol.** 86(1):111-28. doi: 10.1111/j.1365-2958.2012.08180.x. (IF: 5.01)
42. Liu Z, Miao J, Cui L. (2011) Gametocytogenesis in malaria parasite: commitment, development and regulation. **Future Microbiol.** 6:1351-69. (Invited review) (IF: 3.819)
43. Miao J*, Cui L. (2011) Rapid isolation of single malaria parasite-infected red blood cells by cell sorting. **Nature Protocols** 6:140-6. *corresponding author (IF: 9.924)
44. Schönig K, Kentner D, Gossen M, Baldinger T, Miao J, Welzel K, Vente A, Bartsch D, Bujard H. (2011) Development of a BAC vector for integration-independent and tight regulation of transgenes in rodents via the tet system. **Transgenic Res.** 20:709-20. (IF: 2.754)
45. Miao J, Fan Q, Cui L, Li X, Wang H, Ning G, Reese J, Cui L. (2010) The MYST family histone acetyltransferase regulates gene expression and cell cycle in malaria parasite *Plasmodium Falciparum*. **Mol Microbiol.** 78:883-902 (IF: 4.819)
46. Miao J, Li X, Cui L. (2010) Cloning of *Plasmodium falciparum* by single-cell sorting. **Exp Parasitol.** 126:198-202 (IF: 2.122)
47. Miao J, Li J, Qi F, Li X, Li X, Cui L. (2010) The Puf family RNA-binding protein pfpuf2 regulates sexual development and sex differentiation in the malaria parasite *Plasmodium Falciparum*. **J Cell Sci.** 123:1039-49. (IF: 6.29)

48. Cui L, Miao J. (2010) Chromatin-mediated epigenetic regulation in the malaria parasite *Plasmodium falciparum*. **Eukaryot Cell** 9:1138-49. (IF: 3.395)
49. Meng H, Zhang R, Yang H, Fan Q, Su X, Miao J, Cui L, Yang Z. (2010) In vitro sensitivity of *plasmodium falciparum* clinical isolates from the China-Myanmar border area to quinine and association with polymorphism in the Na⁺/H⁺ exchanger. **Antimicrob Agents Chemother.** 54:4306-13 (IF: 4.672)
50. Berger S, Pesold B, Reber S, Schönig K, Berger A, Weidenfeld I, Miao J, Berger M, Gruss O, Bartsch D. (2010) Quantitative analysis of conditional gene inactivation using rationally designed, tetracycline-controlled MiRNAs. **Nucleic Acids Res.** 38(17):e168. (IF: 7.836)
51. Fan Q, Miao J, Cui L, Cui L. (2009) Characterization of protein arginine methyltransferase I from *Plasmodium falciparum*. **Biochem J.** 421: 107-18. (IF: 5.155)
52. Fang L*, Zhang X*, Miao J, Zhao F, Yang K, Zhuang R, Bujard H, Yang A, Chen L, Jin B. (2009) Expression of CD226 antagonizes apoptotic cell death in murine thymocytes. **J Immunol.** 182: 5453-60. * Co-first author. (IF: 5.646)
53. Cui L*, Miao J*, Furuya T, Fan Q, Li X, Rathod P, Su X, Cui L. (2008) Histone acetyltransferase inhibitor anacardic acid causes changes in global gene expression during in vitro *Plasmodium falciparum* development. **Eukaryot Cell** 7: 1200-10. *Co-first author. (IF: 3.83)
54. Cui L, Miao J, Wang J, Li Q, Cui L. (2008) *Plasmodium falciparum*: development of a transgenic line for screening antimalarials using firefly luciferase as the reporter. **Exp Parasitol.** 120: 80-7. (IF: 1.751)
55. Cui L, Fan Q, Cui L, Miao J. (2008) Histone lysine methyltransferases and demethylases in *Plasmodium falciparum*. **Int J Parasitol.** 38: 1083-97. (IF: 3.752)
56. Liu L, Xie X, Zhang R, Xu P, Bujard H, Miao J. (2008) Reproduction and fertility in wild-type and transgenic mice after orthotopic transplantation of cryopreserved ovaries from 10-d-old mice. **Lab Animal** 37: 353-7. (IF:0.385)
57. Cui L*, Miao J*, Cui L. (2007) Cytotoxic effect of curcumin on malaria parasite *Plasmodium falciparum*: inhibition of histone acetylation and generation of reactive oxygen species. **Antimicrob Agents Chemother.** 51: 488-94. * Co-first author. (IF: 4.39)
58. Cui L, Miao J, Fuyoya T, Li X, Su X, Cui L. (2007) PfGCN5-mediated histone H3 acetylation plays a key role in gene expression in *Plasmodium falciparum*. **Eukaryot Cell.** 6: 1219-27. (IF:3.4)
59. Miao J, Fan Q, Cui L, Li J, Li J, Cui L. (2006) The malaria parasite *Plasmodium falciparum* histones: organization, expression, and acetylation. **Gene.** 369: 53-65. (IF: 2.721)
60. Miao J, Li X, Liu Z, Xue C, Bujard H, Cui L. (2006) Immune responses in mice induced by prime-boost schemes of the *Plasmodium falciparum* apical membrane antigen 1 (pfama1)-based DNA, protein and recombinant modified vaccinia ankara vaccines. **Vaccine.** 24: 6187-98. (IF: 3.159)

61. Yang Z, Miao J, Huang Y, Li X, Putaporntip C, Jongwutiwes S, Gao Q, Udomsangpetch R, Sattabongkot J, Cui L. (2006) genetic structures of geographically distinct *Plasmodium vivax* populations assessed by pcr/rflp analysis of the merozoite surface protein 3 β gene. **Acta Trop.** 100: 205-12. (IF: 2.211)

Invited Speaker in the Scientific Meetings or Seminars

1. Invited speaker at The Genomics of Global and Planetary Health Annual Symposium. March 15th, 2019. Talk title: Translational regulation on asexual and sexual development of malaria parasite. USF, USA
2. Invited speaker at USF Genomics Program and GHIDR Center Seminar. January 15th, 2019. Talk title: Functional study of protein arginine methyltransferase 5 in the malaria parasite. USF, USA

Attended the Professional Meetings including papers presented (The first authors were the actual presenter)

1. Miao J, et al. Unique GCN5 complex in *Plasmodium falciparum*. IV Florida Malaria Consortium Meeting. March 12th, 2021. virtual conference, USA.
2. Attended 31th Molecular Parasitology Meeting, Sept. 21-24, 2020, virtual conference, USA.
3. MALARIA-20: A Virtual Mini-Symposium on Advances in Malaria Research on Jun 29, 2020, USA
4. Miao J, et al. Malaria epigenetic function of histone acetyltransferase. March Malaria Madness Meeting (M4) 2019 March 8-9. Gainesville, FL, USA.
5. Attended 30th Molecular Parasitology Meeting, Sept. 15-19, 2019, Woods hole. Ma, USA.
6. Miao J, Li X, Liang X, Sebastian A, Cui L. A unique GCN5 histone acetyltransferase complex mediates gene transcription in *Plasmodium falciparum*. 29th Molecular Parasitology Meeting, Sept. 9-13, 2018, Woods hole. Ma, USA.
7. Miao J, Liu M, Huang Y, Chen Z, Fan Q, Liang X, Siddiqui FA, Sebastian A, Li X, Praul CA, Albert I, Li R, Cui L. A unique type II protein arginine methyltransferase in *Plasmodium falciparum* Gordon Research Conference: Biology of Host-Parasite Interactions. June 10-15, 2018
8. Attended 28th Molecular Parasitology Meeting, Sept. 10-14, 2017, Woods hole. Ma, USA.
9. Attended 66th American Society of Tropical Medicine and Hygiene. December 5-9, 2017, Baltimore, MD. USA.
10. Attended 65th American Society of Tropical Medicine and Hygiene. December 13-17, 2016, Atlanta, GA, USA.
11. Hoeijmakers WAM, Miao J, Li X, Cui L, Bartfai R. Reading the readers of the *P. falciparum* epigenome. 27th Molecular Parasitology Meeting, Sept. 18-22, 2016, Woods hole. Ma, USA.
12. Miao J, Hoeijmakers WAM, Li X, Stunnenberg HG, Bartfai R, and Cui L. A unique ADA2/GCN5 histone acetyltransferase complex mediates cross-talk between H3K4me3 and H3K9ac in *P. falciparum* chromatin. 26th Molecular Parasitology Meeting, Sept. 20-24, 2015, Woods hole. Ma, USA.
13. Miao J, Li X, Siriwat S and Cui L. Identification of an MYST histone acetyltransferase complex in *Plasmodium falciparum* 25th Molecular Parasitology Meeting, Sept. 14-18, 2014, Woods hole. Ma, USA.

14. Miao J, Fan Q, Parker D, Li X, Cui L. Puf mediates translation repression of transmission-blocking vaccine candidates in malaria parasites. Keystone symposia on molecular and cellular biology 2013 on malaria. January 21-24, New Orleans, USA.
15. Miao J, Li X, Parker D and Cui L. Acetylome in the blood stage of *Plasmodium falciparum*. 23th Molecular Parasitology Meeting, Sept. 22-26, 2012, Woods hole. Ma, USA.
16. Miao J, Wang Z, Cui L. Development of a *Plasmodium falciparum* transgenic line for screening drugs targeting by using strong gametocyte specific promoter. 60th American Society of Tropical Medicine and Hygiene. December 4-8, 2011, Philadelphia, PA. USA.
17. Cui L, Wang Z, Miao M, Chandra R, Miao J, Cui L. Artemisinin resistance associated with PfMDR1 copy numbers and anti-oxidant activity in the in vitro selected parasites lines. 60th American Society of Tropical Medicine and Hygiene. December 4-8, 2011, Philadelphia, PA. USA.
18. Miao J, Fan Q, Li X, Childs R, Liu Z, Cui L. Translational regulation of sexual development by Puf family RNA-binding protein PfPuf2 in the malaria parasite *Plasmodium falciparum*. 22th Molecular Parasitology Meeting, Sept. 11-15, 2011, Woods hole. Ma, USA.
19. Miao M, Yang Z, Miao J, Cui L, Miao Z, Cui L. Genotyping of DHFR and DHPS for *Plasmodium falciparum* isolates from Southwest China. 21th Molecular Parasitology Meeting, Sept. 12-16, 2010, Woods hole. Ma, USA.
20. Miao J, Cui L, Fan Q, Li X, Cui L. The function of a MYST family histone acetyltransferase in malaria parasite *Plasmodium falciparum*. 20th Molecular Parasitology Meeting, Sept. 13-17, 2009, Woods hole. Ma, USA.
21. Cui L, Miao J, Cui L. Disruption of PfPuf1 in *Plasmodium falciparum* reduces gametocytogenesis. 20th Molecular Parasitology Meeting, Sept. 13-17, 2009, Woods hole. Ma, USA.
22. Miao J, Li J, Fan Q, Cui L, Li X, Cui L. The Function of RNA-binding protein PfPuf2 in the gametogenesis of *Plasmodium falciparum*. 19th Molecular Parasitology Meeting, Sept. 21-25, 2008, Woods hole. Ma, USA.
23. Hesheng Zhang, Jun Miao, Qi Fan, Long Cui, Liwang Cui. The role of a histone like protein (PfHLP) in *Plasmodium falciparum*. 19th Molecular Parasitology Meeting, Sept. 21-25, 2008, Woods hole. Ma, USA.
24. Miao J, Qi F, Cui L, Cui L. The histone acetyltransferase PfMYST in *Plasmodium falciparum*. 18th Molecular Parasitology Meeting, Sept. 16-20, 2007, Woods hole. Ma, USA.
25. Cui L, Miao J, Furuya T, Su X, Cui L. Globe search of Pf GCN5 mediated genes in *Plasmodium falciparum* using two HAT inhibitors. 18th Molecular Parasitology Meeting. September 16-20. 2007, Woods hole, MA. USA
26. Cui L, Miao J, Furuya T, Su X, Cui L. The histone acetyltransferase PfGCN5 inhibitors inhibit *Plasmodium falciparum* growth in *Vitro*. 26th Summer Symposium in Molecular biology, Chromatin and Epigenetic Regulation of Transcription, June 19-22, 2007. University Park, PA. USA
27. Cui L, Miao J, Furuya T, Li X, Su X, Cui L. Genome-wide localization analysis of histone H3-K9 acetylation, the histone acetyltransferase PfGCN5 and gene expression in the malaria parasite *Plasmodium falciparum*. 17th Molecular Parasitology Meeting, Sept. 10-14, 2006, Woods hole. Ma. USA
28. Miao J, Fan Q, Cui L, Li J, Cui L. Expression and acetylation of *Plasmodium falciparum* histone. 16th Molecular Parasitology Meeting, Sept. 11-15, 2005, Woods hole. Ma, USA
29. Miao J, Xue C, Yu Q, Wang X, Qin E. Immunogenicity of *P.falciparum* MSP1 C-terminal region based DNA vaccines in Balb/c mice. 10th International Congress of Protozoology, July 21-25, 1997, Sydney, Australia

30. Miao J, Xue C, Yu Q, Qin E. Construction of a *Plasmodium falciparum* Merzoite Surface Protein 1 C-terminal region-based hybrid nucleic acid vaccine and its immunogenicity. UNDP/World Bank/WHO/TDR supported Workshop on Vaccine and Diagnostics for Malaria and Schistosomiasis. November 13-14, 1997 Guangzhou, China

SERVICE

Member of Editorial Board

Acta Tropica (ended in 2016)

Editorial Board of Epigenomics and Epigenetics (specialty section of Frontiers in Genetics and Frontiers in Cell and Developmental Biology) (2022-)

Microbiology Spectrum (2022-)

Member of scientific societies

American Society for Microbiology

Ad hoc reviewer for grant agencies

15 proposals for Nature Science Foundation of China (NSFC), Preventive medical science, April 2006.

12 proposals for Nature Science Foundation of China (NSFC), Parasitology, April 2007.

Invited Reviewer for the following international journals

Acta Tropica

Antimicrobial Agents and Chemotherapy (AAC)

Biotechnology Progress

Current Bioactive Compounds (CBC)

Cytometry, Part A

Malaria chemotherapy, control & elimination

Nuclear Acid Research

Vaccine

Public Library of Science, One (PLoS ONE)

Public Library of Science, Pathogens (PLoS Pathogens)

Scientific Reports

Frontiers in Cellular and Infection Microbiology

Parasitology International

Pathogens and Disease

Supervising personnel on the Scientific Research in both Dr. Cui' and my Lab

Since 2013, I have been taking the responsibility for supervising lab members of Dr. Cui's lab on multiple NIH-funded projects. These include biweekly meetings with the postdocs and graduate students and organize the weekly lab meetings. Starting from Oct. 2018, I have been managing and supervising my lab's personnel on research.

TEACHING/MENTORING

Mentoring

Co-mentoring Dr. Liwang Cui's graduate student (Awtum Brashear 2015-2020). As a member of thesis and dissertation committees, co-mentoring Dr. John Adams' graduate student (Jyotsna Chawla 2019-) and Dr. Kami Kim's graduate student (William Cromwell 2021-).

Teaching

1991 fall semester: Medical microbiology and immunology
1992 spring semester: Medical microbiology and parasitology
1992 fall semester: Medical microbiology and immunology
1998 fall semester: Medical parasitology
1999 fall semester: Medical parasitology