胡薇



一、个人简介

博士，研究员，中国CDC寄生虫病预防控制所兼职研究员，博士生导师；中国疾病预防控制中心—复旦大学生命学院“寄生虫—宿主遗传与生态研究联合实验室”。2012年4月至今，复旦大学生命科学学院，中国CDC寄生虫病所兼职研究员；1996年7月-2012年3月在中国CDC寄生虫病所工作，主要从事分子寄生虫学相关研究，曾任中国疾病预防控制中心寄生虫病预防控制所重点实验室副主任、主任；病原室副主任。1996－1998年期间，主要参与疟疾诊断与疫苗以及钩虫疫苗相关研究；2000年3月至今，作为主要承担者之一参加日本血吸虫基因组、转录组和蛋白质组及其应用研究。近年来，负责国家重大传染病专项课题（1）、国家科技部“863”课题（1）、国家自然科学基金课题（4）和省部级课题（2）。在《Nature》、《Nature Genetics》、《PLoS Pathogens》、《Scientific Reports》等发表SCI论文44篇（近5年通讯作者论文18篇），总被引用1170次，近五年他引566次。以第一发明人获授权专利4项。获国家自然科学二等奖（排名第二,2013）、第四届中国青年女科学家奖（2007）、全国优秀博士学位论文（2005）等。

二、主要研究方向

寄生虫功能基因组及应用。主要涉及：1、寄生虫生长发育的分子机制；2、重要寄生虫病诊断、疫苗和药物靶点的筛选和验证；3、寄生虫及其媒介的遗传变异和分子进化

三、代表性科研项目

1. 入侵生物的种质遗传学特征及适应性分子基础研究（2016YFC1200503，国家重点研发计划-生物安全关键技术研发，294万；2016.07-2018.12，课题负责人）
2. Development for Easy to Use and Affordable Biomarkers as Diagnostics for Types II and III Diseases（WHO示范项目，2016.07-2019, 12万美元，子课题负责人）
3. 日本血吸虫尾蚴入侵宿主皮肤的分子机理（31572513，77.32万，2016.1-2019.12，国家自然科学基金，负责人）
4. 湖区日本血吸虫适应山区新环境的分子进化机制（91431104 ，100万，2015.1-2017.12，国家自然科学基金，负责人）
5. 日本血吸虫雌虫在与雄虫合抱后至性成熟过程的关键分子事件研究，（81271867,70万，2013-1016,国家自然科学基金，负责人）
6. 基于功能基因组的重要寄生虫病防治基础科研支撑平台（2009ZX10004-302，1535万，2009-2011，国家科技重大专项项目，负责人）
7. 基于全基因组的日本血吸虫疫苗和诊断新靶点的大规模筛选和鉴定（2007AA02Z153，300万，2007-2010，国家十一五“863”计划专题目标导向课题，负责人）
8. 基于生物信息学的日本血吸虫嘌呤代谢途径研究（30570429，28万，2006-2008，国家自然科学基金，负责人）
9. 抗日本血吸虫药物靶点的发掘（3040562，22万，2005-2007，国家自然科学基金，负责人；04QMX1455，10万，上海市科委“青年科技启明星”人才培养计划，负责人）

四、代表性论文、成果（2011年以来，\*通讯作者）

1. Yin MB#, , Blair, D Xu B, Feng Z,and **Hu** **W\* .** Temporal genetic diversity of Schistosoma japonicum in two endemic sites in China revealed by microsatellite markers。*Parasite & Vectors*. 2016; 9: 36.
2. Yin MB#, Zheng H#, Su J, Feng Z, McManus DP, Zhou X, Jin L and **Hu** **W\*.** Co-dispersal of the blood fluke *Schistosoma japonicum* and *Homo sapiens* in the Neolithic Age. *Scientific Reports, 2015*. 5: 18058
3. Wang JP#,  Wang SQ, Liu XF,  Xu B,  Chai RY,  Zhou P,  Ju C,  Sun J,  Brindley PJ , **Hu W\***. Intake of Erythrocytes Required for Reproductive Development of Female *Schistosoma japonicum.* *PLoS One*. 2015, 10(5):e0126822
4. Yin MB#, Li HY, McManus, DP, Blair, D, Su J, Yang Z, Xu B, Feng Z, **Hu W\***. Geographical genetic structure of *Schistosoma japonicum* revealed by analysis of mitochondrial DNA and microsatellite markers. *Parasite & Vectors*. 2015, 8 (1)：150.
5. Liu M#,Ju C, Du XF, Shen HM, Wang JP, Li J, Zhang XM,Feng Z, **Hu W\*.** Proteomic Analysis on Cercariae and Schistosomula in Reference toPotential Proteases Involved in Host Invasion of *Schistosoma japonicum* Larvae. *Journal Proteome Research*. 2015,14(11): 4623-4634
6. Ezeh C#, Yin MB#, Li HY, Zhang T, Xu B, Sacko M, Feng Z and **Hu W\*.** High genetic variability of *Schistosoma haematobium* in Mali and Nigeria by using microsatellite markers. *The Korean Journal of Parasitology*. 2015, 53: 129
7. Chen JH\*, Chen SB, Wang Y, Ju C, Zhang T, Xu B, Shen HM, Mo XJ, Molina DM, Eng M, Liang X, Gardner MJ, Wang R, **Hu W\*.** An immunomics approach for the analysis of natural antibody responses to *Plasmodium vivax* infection. *Mol Biosyst*. 2015 11(8): 2354-63.
8. Liu CS, Zhang HB\*, Yin JH, Hu W\*. In vivo and in vitro efficacies of mebendazole, mefloquine and nitazoxanide against cyst echinococcosis. *Parasitology Research*. 2015,114: 2231-2222
9. Wang SQ, **Hu W\***, [Development of "-omics" research in Schistosoma spp. and -omics-based new diagnostic tools for schistosomiasis](http://apps.webofknowledge.com/full_record.do?product=UA&search_mode=GeneralSearch&qid=5&SID=2BmSUCio1qlUuLhixUH&page=1&doc=1). ***Frontiers in Microbiology***,2014 Jun, 5:313
10. Sun J\*, Wang SW, Li C, **Hu W**, Ren YJ, Wang JQ. Transcriptome profilings of female *Schistosoma japonicum* reveal significant differential expression of genes after pairing. ***Parasitol Res***. 2014 Mar; 113(3):881-92
11. Wu C，Chen Q, Fang Y, Wu J, Han Y, Wang Y, Yang Y, Chu M, Feng Y, Tan L, Guo X, **Hu W,** Wang Z\*,. Schistosoma japonicum Egg Specific Protein SjE16.7 Recruits Neutrophils and Induces Inflammatory Hepatic Granuloma Initiation. ***PLoS Negl Trop Dis.*** 2014 Feb 13;8(2):e2703.
12. Chen JH\*, Zhang T, Ju C, Xu B, Lu Y, Mo XJ, Chen SB, Fan YT, **Hu W\***, Zhou XN\*. An integrated immunoproteomics and bioinformatics approach for the analysis of *Schistosoma japonicum* tegument proteins. ***J Proteomics***. 2014 Jan 19;98C: 289-299.
13. Sun J\*, **Hu W**, Li C. Beyond heme detoxification: a role for hemozoin in iron transport in S. japonicum. ***Parasitol Res***. 2013 Aug;112(8):2983-90
14. Liu J, Dyer DH, Wang JP, Wang SQ, Du XF, Xu B, Zhang HB, Wang XN, **Hu W\***. 3-Oxoacyl-ACP Reductase from *Schistosoma japonicum*: Integrated In Silico-In Vitro Strategy for Discovering Antischistosomal Lead Compounds. ***PLoS One***, 2013, June, 7:8(6):e64984
15. Zhou X ，Li SG，Chen SB，Wang JZ，Xu B，Zhou HJ，ZhuGe HX，ChenJH，Hu W**\***，Co-infections with Babesia microti and Plasmodium parasites along the China-Myanmar border，***INFECTIOUS DISEASES OF POVERTY***，2013，2：24
16. Liu J, Dyer DH., Cheng JD, Wang JP, Wang SQ, Yang Z, Wang XN\* and **Hu W\***. Aldose reductase from *Schistosoma japonicum*: crystallization and structure-based inhibitor screening for discovering antischistosomal lead compounds. ***Parasit Vector.*** 2013,Jun 5;6 :162
17. Deng WP, Xu B, Hu HY, Li, JY, **Hu W**\*, Song SP\*, Feng Z\*, Fan CH\*. Diagnosis of schistosomiasis japonica with interfacial co-assembly-based multi-channel electrochemical immunosensor arrays. ***Sci Rep***. 2013. May. 3:1789
18. Yu FD, Yang SY, Li YY\*, **Hu W**\*. Co-expression network with protein-protein interaction and transcription regulation in malaria parasite *Plasmodium falciparum*. ***Gene***. 2013 Apr 10; 518(1):7-16.
19. You H, McManus DP, **Hu W**, Smout MJ, Brindley PJ, Gobert GN\*. Transcriptional Responses of In Vivo Praziquantel Exposure in Schistosomes Identifies a Functional Role for Calcium Signalling Pathway Member CamKII. ***PLoS Pathog.*** 2013, Mar;9(3):e1003254.
20. Liu J, Wang JP, Wang SQ, Xu B， Liu XF, WangXN\*, **Hu W**\*. Molecular cloning and characterization of *Schistosoma japonicum* aldose reductase. ***Parasitol Res***, 2013.Feb. 112(2): 549-558
21. Fan YT, Wang Y, Ju C, Zhang T, Xu B, **Hu W**, Chen JH\*. Systematic analysis of natural antibody responses to *P. falciparum* merozoite antigens by protein arrays. ***J Proteomics.*** 2013 Jan 14; 78: 148-58.
22. Cui SJ, Xu LL, Zhang T, Xu M, Yao J, Fang CY, Feng Z, Yang PY\*, **Hu W**\*, Liu F\*. Proteomic characterization of larval and adult developmental stages in *Echinococcus granulosus* reveals novel insight into host-parasite interactions. ***J Proteomics.*** 2013,Jun 12; 84:158-175
23. Xu B, Gordon CA\*, **Hu W**, McManus DP, Chen HG, Gray DJ, Ju C, Zeng XJ, Gobert GN, Ge J, Lan WM, Xie SY, Jiang WS, Ross AG, Acosta LP, Olveda R, Feng Z\*. A novel procedure for precise quantification of *Schistosoma japonicum* eggs in bovine feces. ***PLoS Negl Trop Dis***. 2012;6(11):e1885.
24. Solomon AW\*, Engels D, Bailey RL, Blake IM, Brooker S, Chen JX, Chen JH, Churcher TS, Drakeley CJ, Edwards T, Fenwick A, French M, Gabrielli AF, Grassly NC, Harding-Esch EM, Holland MJ, Koukounari A, Lammie PJ, Leslie J, Mabey DC, Rhajaoui M, Secor WE, Stothard JR, **Hu W,** Willingham AL, Zhou XN, Peeling RW. A diagnostics platform for the integrated mapping, monitoring, and surveillance of neglected tropical diseases: rationale and target product profiles. ***PLoS Negl Trop Dis***. 2012, 6(7):e1746.
25. Lu Y, Xu B, Ju C, Mo XJ, Chen SB, Feng Z, Wang XN\*, **Hu W**\*. Identification and profiling of circulating antigens by screening with the sera from schistosomiasis japonica patients. ***Parasite Vectors.*** 2012 Jun 11;5:115.
26. Ju C, XuB, Lu Y. M XJ, Zhang T, Chen SB, Liu F, Cui SJ, Liu W, Chen JH, Feng Z, Peng JX\* , **Hu W.** Comparative immunomic analysis of *Schistosoma japonicum* soluble egg antigens reacting with patient sera before and after praziquantel treatment. ***J. Animal and Vet Adv*** 2012,11(15):2828-2838.
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28. Feng YY, Liu L, Wang JP, Liu J, **Hu W,** Wang XN\*, Yang Z\*. Integrated refolding techniques for Schistosoma japonicum MTH1 overexpressed as inclusion bodies in Escherichia coli. ***Protein Expr Purif.*** 2012 Aug;84(2):181-7