

<p><b>个人简介</b></p>	
<p>姓名: 张颀          性别: 女          出生年月: 1978 年 10 月          学位/学历: 博士/博士          职称: 副研究员          电子邮件: zhangting@nipd.chinacdc.cn          办公地址: 上海市黄浦区瑞金二路 207 号          办公电话: 021-64377008-2403</p>	
<p><b>教育经历</b></p>	
<p>1997-2001 年: 天津科技大学, 生物化工专业, 本科          2002-2005 年: 广西大学, 发酵工程专业, 硕士          2005-2009 年: 华东理工大学, 生物化工专业, 博士</p>	
<p><b>工作经历</b></p>	
<p>2010-2012 年: 中国疾病预防控制中心寄生虫病预防控制所, 流行病与数理统计专业, 博士后          2012.07-2016.06: 中国疾病预防控制中心寄生虫病预防控制所重点实验室, 助理研究员          2016.07-2018.05: 中国疾病预防控制中心寄生虫病预防控制所重点实验室, 副研究员          2018.06-至今: 中国疾病预防控制中心寄生虫病预防控制所重点实验室, 副研究员/学术带头人          2019.08-至今: 西藏自治区疾病预防控制中心国家卫生健康委包虫病防治重点实验室, 学科带头人 (兼职)          2020 年-至今: 内蒙古大学, 硕士生导师 (兼职)</p>	
<p><b>社会/学术任职和活动</b></p>	
<p>《中华地方病杂志》第九届通讯编委</p>	

## 研究方向/主要研究内容

主要研究方向为棘球绦虫等寄生虫的感染组学及其在防治中的应用。擅长运用多组学技术，聚焦棘球绦虫侵染宿主份额分子机制，系统、全面地解析寄生虫与宿主的相互作用，并为控制感染提供新技术、新策略。带领团队围绕包虫病诊断难题开展科技攻关，研发了一项包虫病即时检测新技术，并完成新技术转让与推广应用。

## 科研/教学研究项目

作为项目负责人曾主持国家自然科学基金等 7 项课题，

[1] 小鼠泡型包虫病浸润转移的动态代谢组学，批准号 81201315，项目类别：国家自然科学基金青年基金。本人作用：总负责。

[2] 免疫蛋白质组学方法筛选及鉴定囊型包虫病诊断抗原，批准号：20124174，项目类别：上海市卫生计生委科研课题。本人作用：总负责。

[3] 耐热粪抗原鉴定及其在犬棘球绦虫感染快速诊断中的应用研究，批准号：2013A103，项目类别：中国疾病预防控制中心青年基金。本人作用：总负责。

[4] 基于核磁共振法的泡型包虫病代谢组学研究，批准号：T151407，项目类别：波谱与原子分子物理国家重点实验室开放课题。本人作用：总负责。

[5] 囊型包虫病早期诊断标志物高通量筛选及应用研究，批准号：2014M551331，资助金额：5 万元，项目类别：中国博士后基金面上项目。本人作用：总负责。

[6] 即时诊断技术在包虫病监测中的应用研究，批准号上海市卫生健康委：201840133，项目类别：上海市卫生健康委临床专项。本人作用：总负责。

[7] 重要寄生虫标准化鉴定技术及参比库建设，批准号 2018ZX10734404-004，项目类别：中华人民共和国科技部。本人作用：课题任务包负责人。

[8] 重要威胁人类寄生虫感染致病机制和防控干预技术研究，批准号 2021YFC2300800，项目类别：中华人民共和国科技部。本人作用：课题任务包负责人。

[9] 乳酸脱氢酶在棘球蚴浸润性生长中的功能研究，批准号：2021KF0301，项目类别：中华人民共和国科技部。本人作用：总负责。

## 主要学术成果

### 期刊论文

- [1] Gao H\*, Zhang Y, Mo X, Huo L, Luo Y, **Zhang T\***, Ma X\*, Hu W, Jing T. Antitumor Effect of Pseudolaric Acid B Involving Regulation of Notch1/Akt Signaling Response in Human Hepatoma Cell In Vitro. *Evid Based Complement Alternat Med*. 2022;2022:5353686. (并列通讯)
- [2] Haijun Gao, Xudong Sun, Yanping Luo, Huasheng Pang, Xingming Ma, **Ting Zhang\***, Tao Jing\*, Wei Hu, Yujuan Shen, Jianping Cao. Anti-echinococcal effect of verapamil involving the regulation of the calcium/calmodulin-dependent protein kinase II response in vitro and in a murine infection model[J]. *Parasites Vectors*. 2021, 14(1):108. (并列通讯)
- [3] Shuai Yan, Dong Wang, Junrui Zhang, Xiaojin Mo, Yu Feng, Liling Duan, Deyu Liu, Fan Li, Yongchun Dao, **Ting Zhang\***, Wei Hu, Zheng Feng, Bin Zheng\*. Epidemiological survey of human echinococcosis in east Gansu, China[J]. *Sci Rep*, 2021, 11(1):6373. (并列通讯)
- [4] Justus Amuche Nweze, Florence N. Mbaaji, Yanming Li, Liyan Yang, Shushi Huang, Vincent N. Chigor, Emmanuel A. Eze, Lixia Pan, **Ting Zhang\*** and Dengfeng Yang\*. Potentials of marine natural products against malaria, leishmaniasis, and trypanosomiasis parasites: a review of recent articles[J]. *Infectious Diseases of Poverty*, 2021;10(1): 9. (并列通讯)
- [5] Zhi-Dan Li, Xiao-Jin Mo, Shuai Yan, Dong Wang, Bin Xu, Jian Guo, **Ting Zhang\***, Wei Hu\*, Yu Feng, Xiao-Nong Zhou, Zheng Feng. Multiplex cytokine and antibody profile in cystic echinococcosis patients during a three-year follow-up in reference to the cyst stages [J]. *Parasites Vectors*, 2020, 13(1):133. (并列通讯)
- [6] **Ting Zhang**, Xiao-Jin Mo, Bin Xu, Zhong Yang, Geoffrey N. Gobert, Shuai Yan, Zheng Feng, Wei Hu\*. Enzyme activity of *Schistosoma japonicum* cercarial elastase SjCE-2b ascertained by in vitro refolded recombinant protein [J]. *Acta Trop*, 2018, 187: 15-22.
- [7] 高海军#, 庞华胜#, 孙旭东, 张颀\*, 景涛\*, 王晓玲, 莫筱瑾, 胡薇. 泡球蚴持续感染对小鼠肝脏纤维化的影响[J], *中国血吸虫病防治杂志*, 2021, 33(1):54-61.
- [8] 高海军#, 庞华胜#, 张妍, 霍乐乐, 姜斌, 莫筱瑾, 雒艳萍, 张颀\*, 景涛\*, 徐斌, 马兴铭, 胡薇. 白黎芦醇体外对多房棘球蚴原头节和微囊的作用研究. *中国人兽共患病学报*, 2021, 37(12):44-50. 793-797.
- [11] 闫帅, 严萍, 莫筱瑾, 徐斌, 张颀\*, 胡薇, 詹若挺, 叶萍. 细粒棘球绦虫乳酸脱氢酶B 细胞表位的预测及鉴定[J]. *中国寄生虫学与寄生虫病杂志*, 2017, 35(6): 554-558.
- [12] 王东, 冯宇, 李凡, 格鹏飞, 张颀\*, 胡薇, 梁虹, 杨国兵, 余大为, 杨成明,

杨俊克.甘肃省藏区人群棘球蚴病流行现状调查及分析[J]. 中国寄生虫学与寄生虫病杂志, 2017, 35(2):140-144.

## 著作

无

## 专利

- [1] 张颀, 陈英, 胡薇, 冯宇, 陈军虎, 王东, 贾利芳, 莫筱瑾, 陈绅波, 徐斌. 一种新的棘球蚴病诊断抗原及其应用, 中国发明专利 ZL201610081438.6
- [2] 莫筱瑾, 覃冰, 张颀, 陈国治, 胡薇, 周晓农, 一种用于包虫病检测试纸条快速成像分析的暗盒, 2019-9-10, 中国, ZL201822152378.X
- [3] 钱帅, 张颀, 覃冰, 莫筱瑾, 陈国治, 胡薇, 周晓农, 姚恺龄, 尹飞祥, 一种用于包虫病检测的移动式可追踪系统, 2022-05-17, 中国, ZL201811563981.5
- [4] 徐斌, 胡薇, 刘秀凤, 周霞, 黄继磊, 张颀, 莫筱瑾, 陈家旭, 陈军虎, 程训佳, 田鼠巴贝虫2D97 抗原蛋白及其应用, 2022-07-05, 中国, ZL201810686079.6
- [5] 胡薇, 徐斌, 刘秀凤, 周霞, 陈家旭, 陈军虎, 张颀, 莫筱瑾, 邓王平, 党志胜, 蔡玉春, 田鼠巴贝虫 2D41 抗原蛋白及其应用, 2022-07-05, 中国, ZL201810686127.1
- [6] 陈军虎, 樊艳婷, 陈绅波, 王越, 张颀, 鞠川, 徐斌, 胡薇, 间日疟原虫 PvMSP1C 重组抗原蛋白制备方法和用途, 中国发明专利 ZL201310545600.1

## 荣誉及奖项

- [1] 基于功能基因组的重要寄生虫病防治基础科研支撑平台及应用, 2016 年上海市科技进步二等奖, 排名第七, 证书编号: 20164088-2-R07
- [2] 基于功能基因组的重要寄生虫病防治基础科研支撑平台及应用, 2017 年中华预防医学会科学技术三等奖, 排名第七, 证书编号: 20170119-3-G0807
- [3] 基于组学的我国寄生虫病防治关键技术研究平台太的建立及应用, 2015 年华夏医学科技三等奖, 排名第七, 证书编号: 201503020P0807

[4] 人体包虫病快速诊断技术研发与应用，2017年上海市医务职工科技创新“星光计划”二等奖，排名第一。

## Profile

**Name:** Ting Zhang  
**Gender:** Female  
**Date of birth:** October 1978  
**Degree:** PhD/PhD  
**Title:** Associate Researcher  
**Email:** zhangting@nipd.chinacdc.cn  
**Address:** 207 Ruijin Er Road, Shanghai, China  
**Office Tel:** 021-64377008-2403



## Education

1997-2001: Tianjin University of Science and Technology, B.S., Biochemical Engineering

2002-2005: Guangxi University, Master's degree in Fermentation Engineering

2005-2009: East China University of Science and Technology, Biochemical Engineering, PhD

## Appointments

2010-2012: National Institute of Parasitic Diseases, China CDC, Postdoctoral Program in Epidemiology and Mathematical Statistics

2012.07-2016.06: National Institute of Parasitic Diseases, China CDC, Research Assistant

2016.07-2018.05: NHC Key Laboratory of Parasite and Vector Biology, National Institute of Parasitic Diseases, China CDC, Associate Researcher

2018.06-present: NHC Key Laboratory of Parasite and Vector Biology, National Institute of Parasitic Diseases, China CDC, Associate Researcher/PI

2019.08-present: NHC Key Laboratory of Echinococcosis Prevention and Control, Xizang Center for Disease Control and Prevention, PI (part-time)

2020-present: Inner Mongolia University, Master Instructor (part-time)

## Academic Participation and Activities

Ninth editorial board member of Chinese Journal of Endemiology

## Research Interest

Dr. Zhang is the PI of the team of 'Echinococcus Infectomics and It's Applications'. She is committed to using the multi-omics approaches to better understand the pathogenesis of *Echinococcus* infection, and provide new technologies and strategies for echinococcosis control.

## Projects

[1] Study on the dynamic metabonomics associated with the progression of alveolar hydatid cyst invasion and metastasis in the infected mice. Grant: National Natural Science Foundation of China Youth Fund ( No. 81201315). Role: PI.

[2] Screening and identification of antigens for diagnosis of echinococcosis through high throughput immuno-proteomic approach. Grant: Shanghai Municipal Health and Family Planning Commission Research Project (No. 20124174). Role: PI.

[3] Identification and application of heat-resistant fecal antigens for the rapid diagnosis of echinococcosis in the infected canis. Grant: Chinese Centre for Disease Control and Prevention Youth Fund (No.: 2013A103). Role:PI.

[4] NMR-based metabolomics study in alveolar echinococcosis. Grant: State Key Laboratory of Spectroscopy and Atomic Molecular Physics Open Subjects (No. T151407). Role: PI.

[5] High-throughput screening and application of early diagnostic markers for cystic echinococcosis. Grant: Program of China Postdoctoral Fund (No. 2014M551331). Role:PI.

[6] Study on the application of instant diagnosis technology in echinococcosis surveillance. Grant :Clinical special project of Shanghai Municipal Health Commission(No. 201840133). Role:PI.

[7] Standardized identification technology and reference library construction of important parasites. Grant: Ministry of Science and Technology of the People's

Republic of China (No. 2018ZX10734404-004). Role: Project Task Package Leader.

[8] Research on pathogenic mechanism and prevention and control intervention technology of important threatening human parasites. Grant: Ministry of Science and Technology of the People's Republic of China (No. 2021YFC2300800). Role: Project Task Package Leader.

[9] Function of lactate dehydrogenase in infiltrative growth of echinococcus. Grant: Ministry of Science and Technology of the People's Republic of China (No. 2021KF0301). Role: PI.

## Publications

[1] Gao H\*, Zhang Y, Mo X, Huo L, Luo Y, **Zhang T\***, Ma X\*, Hu W, Jing T. Antitumor Effect of Pseudolaric Acid B Involving Regulation of Notch1/Akt Signaling Response in Human Hepatoma Cell In Vitro. Evid Based Complement Alternat Med. 2022;2022:5353686.

[2] Haijun Gao, Xudong Sun, Yanping Luo, Huasheng Pang, Xingming Ma, **Ting Zhang\***, Tao Jing\*, Wei Hu, Yujuan Shen, Jianping Cao. Anti-echinococcal effect of verapamil involving the regulation of the calcium/calmodulin-dependent protein kinase II response in vitro and in a murine infection model[J]. Parasites Vectors. 2021, 14(1):108.

[3] Shuai Yan, Dong Wang, Junrui Zhang, Xiaojin Mo, Yu Feng, Liling Duan, Deyu Liu, Fan Li, Yongchun Dao, **Ting Zhang\***, Wei Hu, Zheng Feng, Bin Zheng\*. Epidemiological survey of human echinococcosis in east Gansu, China[J]. Sci Rep, 2021, 11(1):6373.

[4] Justus Amuche Nweze, Florence N. Mbaoji, Yanming Li, Liyan Yang, Shushi Huang, Vincent N. Chigor, Emmanuel A. Eze, Lixia Pan, **Ting Zhang\*** and Dengfeng Yang\*. Potentials of marine natural products against malaria, leishmaniasis, and trypanosomiasis parasites: a review of recent articles[J]. Infectious Diseases of Poverty, 2021;10(1): 9.

[5] Zhi-Dan Li, Xiao-Jin Mo, Shuai Yan, Dong Wang, Bin Xu, Jian Guo, **Ting Zhang\***, Wei Hu\*, Yu Feng, Xiao-Nong Zhou, Zheng Feng. Multiplex cytokine and



antibody profile in cystic echinococcosis patients during a three-year follow-up in reference to the cyst stages [J]. *Parasites Vectors*, 2020, 13(1):133.

[6] **Ting Zhang**, Xiao-Jin Mo, Bin Xu, Zhong Yang, Geoffrey N. Gobert, Shuai Yan, Zheng Feng, Wei Hu\*. Enzyme activity of *Schistosoma japonicum* cercarial elastase SjCE-2b ascertained by in vitro refolded recombinant protein [J]. *Acta Trop*, 2018, 187: 15-22.

## Books

None.

## Patents

[1] **Zhang, Ting**. Chen, Ying. Hu, Wei. Feng, Yu. Chen, Junhu. Wang, Dong. Jia, Lifang. Mo, Xiaojin. Chen, Shenbo. Xu, Bin. 2021. A new recombinant antigen for diagnosis of echinococcosis and application. CN(ZL201610081438.6), filed Feb 4,2016, and issued Jan 15,2021.

[2] Mo, Xiaojin. Qin, Bing. **Zhang, Ting**. Chen, Guozhi. Hu, Wei. Zhou, Xiaonong. 2019. A dark box for rapid imaging analysis of a rapid diagnostic test for the diasnosis of echinococcosis.CN( ZL201822152378.X), filed Dec 21, 2018, and issued Sep 10,2019.

[3] Qian, Shuai. **Zhang,Ting**. Qin, Bing, Mo, Xiaojin. Chen, Guozhi. Hu, Wei. Zhou, Xiaonong. Yao, Kailing. Yin, Feixiang.2022. A mobile traceable system for RDT in diasnosis of echinococcosis. CN( ZL201811563981.5), filed Dec 20, 2018, and issued May 17, 2022.

[4] Xu, Bin. Hu, Wei. Liu, Xiufeng. Zhou, Xia. Huang, Jilei. **Zhang, Ting**. Mo, Xiaojin. Chen, Jiayu. Chen, Junhu. Cheng, Xunjia. 2022. Expression and application of Bm2D97, a antigenic protein of Babesia microti. CN(ZL201810686079.6), filed Jun 28, 2018, and issued July 5, 2022.

[5] Hu Wei, Xu Bin, Liu Xiufeng, Zhou Xia, Chen Jiayu, Chen Junhu, **Zhang Ting**, Mo Xiaojin, Deng Wangping, Dang Zhisheng, Cai Yuchun. 2022. Expression and application of Bm2D41, a antigenic protein of Babesia microti.

CN(ZL201810686127.1), filed Jun 28, 2018, and issued July 5, 2022.

[6] Chen, Junhu. Fan, Yanting. Chen, Shenbo. Wang, Yue. **Zhang, Ting.** Ju, Chuan. Xu, Bin. Hu, Wei. 2015. Preparation method and applicaion of PvMSP1, a recombinant antigenic protein of Plasmodium vivax. CN(ZL201310545600.1), filed Nov 6, 2013, and issued July 22,2015.

### **Honors and Awards**

[1] Basic scientific research support platform and application of important parasitic disease prevention and control based on functional genome, Shanghai Municipal People's government, S& T Progress Award, Second prize, 2016

[2] Basic scientific research support platform and application of important parasitic disease prevention and control based on functional genome, Chinese Preventive Medicine Association, Science and Technology Award, Third prize, 2017

[3] Research and application of rapid diagnosis technology for human echinococcosis, Shanghai Medical Union, Second prize, 2018