

姓名：严若峰
性别：男
毕业院校：南京农业大学
最高学位：博士
办公地址：逸夫楼 4015
办公电话：84395904
电子邮箱：yanruofeng@njau.edu.cn
研究方向：寄生虫分子与免疫 兽医公共卫生
个人简介：



严若峰，男，1976年8月出生，安徽岳西人。博士，教授，博士生导师。南京农业大学优秀骨干教师。中国畜牧兽医学会兽医寄生虫学分会理事，中国动物学会寄生虫学专业委员会理事。畜牧与兽医、中国动物检疫、南京农业大学学报、江西科学、亚洲兽医病例研究、Parasites & Vectors 等杂志审稿人。

1994年9月至2001年7月就读于安徽农业大学动物医学院，先后获学士和硕士学位。2001年9月至2004年7月就读于南京农业大学预防兽医学专业，获博士学位。2004年7月至今在南京农业大学动物医学院从事兽医寄生虫病学相关的教学和科研工作。2009年9月至2010年9月以访问学者身份在加拿大McGill大学进行合作研究。2014年9月至2016年2月作为中组部第八批援疆干部到新疆农业大学工作，担任动物医学学院副院长。

先后主持国家自然科学基金、国家973子课题、江苏省自然科学基金、中央高校基本科研业务费重点创新项目等6项，参加国家863、国家行业（农业）公益项目等12项。参加国家精品课程、国家精品资源共享课程《兽医寄生虫病学》的教学与建设。发表论文100多篇，参编、主编教材12部，获国家发明专利9项，制定行业标准1项。

科研项目：

主持

(1) 新疆维吾尔自治区自然科学基金(2016D01A038, 新疆农业大学, 援疆期间获资助): 鸡球虫新城疫病毒活载体疫苗研究, 2017年1月-2019年12月。7万。

(2) 国家基础研究计划(973)项目子课题(2015CB150304-2): 捻转血矛线虫吸血和消化相关酶的鉴定与功能, 2015年1月-2019年8月。126万。

(3) 江苏省自然科学基金(BK20141365): 旋毛虫幼虫侵入宿主肌细胞的分子机制, 2014年7月-2017年6月。10万。

(4) 中央高校基本科研业务费自主创新重点项目(KYZ201315): 捻转血矛线虫入侵宿主的分子机制研究, 2013年5月-2016年5月。40万。

(5) 国家自然科学基金(31001059): 捻转血矛线虫发育相关新基因Hcher-1功能研究, 2011年1月-2013年12月。20万。

(6) 江苏省自然科学基金(BK2006145): 山羊捻转血矛线虫免疫调节型DNA疫苗研究, 2006年6月-2008年12月。7万。

参加

(1) 国家自然科学基金国际合作与交流项目(31661143017): 鸡球虫树突状细胞刺激性抗原的确定及其应用, 2016年11月-2019年10月。250万。

(2) 国家自然科学基金(31172308): 捻转血矛线虫重组Galectin抑制山羊外周血淋巴细胞细胞因子转录的通路研究, 2012年1月-2015年12月。62万。

(3) 十二五农村领域国家科技计划(2011AA102A211-4): 偶蹄动物用新型免

疫佐剂的创制，2011年1月-2015年12月。17万。

(4) 江苏省自然科学基金(BK2010446): 毒害艾美耳球虫免疫蛋白组研究, 2010年9月-2013年9月。9万。

(5) 江苏省农业支撑计划(BE2009389): 鸡球虫免疫调节型多价DNA疫苗的研制, 2009年6月-2012年6月。30万。

(6) 国家公益项目(200903036-04): 日本血吸虫病、包虫病、弓形虫病和附红细胞体病等重要人畜共患寄生虫病的防控技术研究, 2009年10月-2013年12月。174万。

(7) 国家自然科学基金(30771617): 堆型艾美耳球虫免疫功基因组研究, 2008年1月-2010年12月, 30万。

(8) 江苏省自然科学基金(BK2007158): 捻转血矛线虫排泄分泌抗原蛋白组研究, 2007年6月-2009年12月。8万。

(9) 国家863(2006AA10A207): 鸡球虫猪囊虫病基因工程疫苗研究创制, 2006年12月-2010年10月。64万。

(10) 国家自然科学基金(30371078): 捻转血矛线虫半乳糖凝集素在免疫合疾病发生中的作用及机理研究, 2004年1月-2006年12月。19万。

(11) 上海市科技兴农重点攻关项目(沪农科攻字2004第12-3号): 上海奶牛主要原虫流行病调查和防治对策研究: 2004年1月-2006年12月。4万。

(12) 国家863计划(2002AA241331): 禽用抗球虫基因工程疫苗的研究, 2002年1月-2005年12月。100万。

荣誉奖项:

- (1) 多媒体课件大赛优秀奖, 教育部教育管理信息中心, 2005
- (2) 希尔思奖教金, 南京农业大学动物医学院, 2005
- (3) 青年教师授课大赛优秀奖, 南京农业大学动物医学院, 2006
- (4) 2007年度考核优秀, 南京农业大学, 2007
- (5) 2008年度考核优秀, 南京农业大学, 2008
- (6) 上海科技成果奖, 上海市科技局, 2008
- (7) 优秀骨干教师, 南京农业大学, 2010
- (8) 生泰尔奖教金, 南京农业大学动物医学院, 2010
- (9) 2014年度考核优秀, 南京农业大学, 2014
- (10) 回盛奖教金, 南京农业大学动物医学院, 2014
- (11) 2015年度考核优秀, 南京农业大学, 2015
- (12) “优秀科研管理院长”, 新疆农业大学, 2015
- (13) “特殊贡献奖”, 新疆农业大学动物医学学院, 2015
- (14) “优秀工作者”, 南京农业大学动物医学院, 2016

发明专利:

(1) **严若峰**, 李祥瑞, 徐立新, 宋小凯, 黄芸. 一种基于LAMP技术的旋毛虫快速检测方法及其引物组合物. 201510790098.X, 2015年11月17日申请。

(2) 李祥瑞, **严若峰**, 赵光伟, 徐立新. 用于预防反刍动物捻转血矛线虫病的DNA疫苗, ZL 200510124045.0, 2008年7月2日授权。

(3) 李祥瑞, 徐前明, **严若峰**, 徐立新. 用于预防鸡球虫病的免疫调节型DNA疫苗, ZL 200510124048.4 2008年7月2日授权。

(4) 李祥瑞, **严若峰**, 徐立新, 宋小凯, 张娜. 预防鸡毒害艾美耳球虫的免疫调节型DNA疫苗, ZL 200810155080.2, 2010年12月8日授权。

(5) 李祥瑞, 宋小凯, **严若峰**, 徐立新. 一种鸡柔嫩艾美耳球虫复合免疫调节型 DNA 疫苗, ZL200710191695.6, 2011 年 5 月 4 日授权。

(6) 李祥瑞, 徐立新, 宋小凯, **严若峰**, 宋鸿雁. 预防鸡堆型艾美耳球虫的免疫调节型 DNA 疫苗, ZL200810155079.X, 2012 年年 7 月 4 日授权。

(7) 李祥瑞, 宋小凯, **严若峰**, 徐立新, 雷晨昱, 宋鸿雁. 预防鸡巨型艾美耳球虫的免疫调节型 DNA 疫苗, ZL200810234982.5, 2012 年 7 月 4 日授权。

(8) 李祥瑞, 宋小凯, **严若峰**, 徐立新, 任喆. 一种鸡艾美耳球虫免疫调节型多价多表位 DNA 疫苗, ZL201110307305.3, 2014 年 9 月 3 日授权。

(9) 李祥瑞, 徐立新, **严若峰**, 宋小凯, 李锐. 一种用于弓形虫感染的诊断抗原及其制备方法和应用. ZL201310124956.8, 2015 年 9 月 16 日授权。

(10) 李祥瑞, **严若峰**, 徐立新, 宋小凯, 高云路. 一种鸡球虫多价重组蛋白亚单位疫苗及其应用. ZL201310273603.4, 2015 年 2 月 18 日授权。

近年代表性论著:

Haemonchus contortus

- (1) Fang Wang, Lixin Xu, Xiaokai Song, Xiangrui Li, **Ruofeng Yan***. Identification of differentially expressed proteins between free-living and activated third-stage larvae of *Haemonchus contortus*. *Veterinary parasitology*, 2016, 215(1): 72-77
- (2) **Ruofeng Yan**, Jingjing Wang, Lixin Xu, Xiaokai Song and Xiangrui Li. DNA vaccine encoding *Haemonchus contortus*. Actin induces partial protection in Goats. *Acta Parasitologica*, 2014, 59(4), 698-709
- (3) **Ruofeng Yan**, Wei Sun, Xiaokai Song, Lixin Xu, Xiangrui Li. Vaccination of goats with DNA vaccine encoding Dim-1 induced partial protection against *Haemonchus contortus* : A preliminary experimental study. *Research in Veterinary Science*, 2013, 95: 189-199
- (4) Zhikai Zhang, Lixin Xu, Xiaokai Song, Xiangrui Li, **Ruofeng Yan***. Characterization of HcMSP, a novel gender specific gene from parasitic nematode *Haemonchus contortus*. *Journal of Animal and Veterinary Advances*, 2013, 12(5): 593-599
- (5) **Ruofeng Yan**, Lixin Xu, Jingjing Wang, Xiaokai Song, Xiangrui Li*. Cloning and Characterization of Aldolase from Parasitic Nematode *Haemonchus contortus*. *Journal of Animal and Veterinary Advances*, 2013, 12(4): 478-486
- (6) **Ruofeng Yan**, Ludmel Urdaneta-Marquez, Kathy Keller, Catherine E James, Mary W Davey, Roger K Prichard*. The role of several ABC transporter genes in ivermectin resistance in *Caenorhabditis elegans*. *Veterinary Parasitology*, 2012, 190 (3-4): 519-529
- (7) GuangWei Zhao#, **RuoFeng Yan#**, Charles I. Muleke, YanMing Sun, LiXin Xu, XiangRui Li*. Vaccination of goats with DNA vaccines encoding H11 and IL-2 induces partial protection against *Haemonchus contortus* infection. *The Veterinary Journal*, 2012, 191: 94-100
- (8) 王芳, 李珂, 徐立新, 宋小凯, 李祥瑞, **严若峰***. 捻转血矛线虫 HSP60 原核表达及特性分析. *畜牧与兽医*, 2015, 47 (11) : 76-80
- (9) 马春晓, 张振超, 李祥瑞, 徐立新, 宋小凯, **严若峰***. 捻转血矛线虫精氨酸激酶基因的克隆与表达及酶活性分析. *南京农业大学学报*, 2014, 37(3) :100-106

- (10) 牛延萍, 高丽丽, 宋小凯, 徐立新, 李祥瑞, **严若峰***. 捻转血矛线虫 ES24 抗原基因的克隆与表达特性分析. 畜牧与兽医, 2012, 44 (11) :17-20
- (11) 张志凯, 徐立新, 宋小凯, 李祥瑞, **严若峰***. 捻转血矛线虫新基因 Hcher-1 的克隆与特性分析. 南京农业大学学报, 2012, 35(6) :89-96
- (12) **严若峰**, 闫峰宾, 王晶晶, 徐立新, 宋小凯, 李祥瑞*. 捻转血矛线虫肌动蛋白基因的克隆与表达及其 DNA 疫苗的构建. 南京农业大学学报, 2012, 35(4) :87-93
- (13) **严若峰**, 宋小凯, 徐立新, 李祥瑞*. 基于 ITS 序列的捻转血矛线虫系统进化分析. 畜牧兽医学报 2012, 43 (7) : 1117-1122
- (14) **严若峰#**, 徐立新#, 李祥瑞*. 捻转血矛线虫纯净 3 期幼虫制备方法的改进. 畜牧与兽医, 2009, 41(1) : 86-88
- (15) **严若峰**, 徐立新, 孙延鸣, 赵光伟, 李祥瑞*. 捻转血矛线虫 DNA 疫苗的构建及山羊免疫保护性试验. 中国农业科学, 2007, 40 (12) : 2869-2875
- (16) **严若峰**, 赵光伟, 徐立新, 孙延鸣, 李祥瑞*. 捻转血矛线虫免疫调节型 DNA 疫苗的构建及在山羊体内表达研究. 畜牧兽医学报, 2007, 38(9) : 954-958
- (17) **严若峰**, 徐立新, 李祥瑞*. 捻转血矛线虫重组 H11 抗原山羊免疫保护性试验. 中国兽医学报, 2007, 27 (6) :842-844
- (18) **严若峰**, 李祥瑞*. 捻转血矛线虫氨基肽酶基因克隆、表达及重组蛋白活性分析. 中国兽医学报, 2006, 26 (2) : 151-154
- (19) **严若峰**, 李祥瑞*. 捻转血矛线虫 H11 基因在巴斯德毕赤酵母中的表达. 南京农业大学学报, 2005, 28 (2) : 85-89
- (20) **严若峰**, 李祥瑞*. 捻转血矛线虫保护性抗原 H11 cDNA 克隆及特性分析. 农业生物技术学报, 2004, 12(6) :739-740
- (21) Javaid Ali Gadahi, Bu Yongqian, Muhammad Ehsan, ZhenChao Zhang, Shuai WANG, **RuoFeng Yan**, XiaoKai Song, LiXin Xu, XiangRui Li*. *Haemonchus contortus* excretory and secretory proteins (HcESPs) suppress functions of PBMCs in vitro. *Oncotarget*, 2016, 7(24): 35670-35679
- (22) Gadahi JA, Wang S, Bo G, Ehsan M, **Yan R**, Song X, Xu L, Li X*. Proteomic Analysis of the Excretory and Secretory Proteins of *Haemonchus contortus* (HcESP) Binding to Goat PBMCs In Vivo Revealed Stage-Specific Binding Profiles. *PLoS One*, 2016, 11(7): e0159796
- (23) Li Y, Yuan C, Wang L, Lu M, Wang Y, Wen Y, **Yan R**, Xu L, Song X, Li X*. Transmembrane protein 147 (TMEM147): another partner protein of *Haemonchus contortus* galectin on the goat peripheral blood mononuclear cells (PBMC). *Parasites & Vectors*, 2016, 9(1): 355
- (24) Gadahi JA, Ehsan M, Wang S, Zhang Z, Wang Y, **Yan R**, Song X, Xu L, Li X*. Recombinant protein of *Haemonchus contortus* 14-3-3 isoform 2 (rHcftt-2) decreased the production of IL-4 and suppressed the proliferation of goat PBMCs in vitro. *Exp Parasitol*, 2016, 171: 57-66
- (25) Javaid Ali Gadahi, Baojie Li, Muhammad Ehsan1, Shuai Wang, Zhenchao Zhang, Yujian Wang, Muhammad Waqqas Hasan, **Ruofeng Yan**, Xiaokai Song, Lixin Xu, Xiangrui Li*. Recombinant *Haemonchus contortus* 24 kDa excretory/ secretory protein (rHcES-24) modulate the immune functions of goat PBMCs in vitro.

Oncotarget, 2016, 7(51): 83926-83937

- (26) Yuan C, Zhang H, Wang W, Li Y, **Yan R**, Xu L, Song X, Li X*. Transmembrane protein 63A is a partner protein of *Haemonchus contortus* galectin in the regulation of goat peripheral blood mononuclear cells. *Parasites & Vectors*, 2015, 8: 211
- (27) Wang W, Wang S, Zhang H, Yuan C, **Yan R**, Song X, Xu L, Li X*. Galectin Hco-gal-m from *Haemonchus contortus* modulates goat monocytes and T cell function in different patterns. *Parasites & Vectors*, 2014, 7: 342
- (28) Wang W, Yuan C, Wang S, Song X, Xu L, **Yan R**, Hasson IA, Li X*. Transcriptional and proteomic analysis reveal recombinant galectins of *Haemonchus contortus* down-regulated functions of goat PBMC and modulation of several signaling cascades in vitro. *J Proteomics*, 2014, 98:123-37
- (29) Wei Sun, Xiaokai Song, **Ruofeng Yan**, Lixin Xu, Xiangrui Li*. Cloning and characterization of a selenium-independent glutathione peroxidase (HC29) from adult *Haemonchus contortus*. *J Vet Sci*, 2012, 13(1), 49-58
- (30) Kaikai Han, Lixin Xu, **Ruofeng Yan**, Xiaokai Song, Xiangrui Li*. Vaccination of goats with glyceraldehyde-3-phosphate dehydrogenase DNA vaccine induced partial protection against *Haemonchus contortus*. *Veterinary Immunology and Immunopathology*, 2012, 149(3-4): 177-185
- (31) Kaikai Han, Lixin Xu, **Ruofeng Yan**, Xiaokai Song, Xiangrui Li*. Molecular cloning, expression and characterization of enolase from adult *Haemonchus contortus*. *Research in Veterinary Science*, 2012, 92 (2): 259-265
- (32) Wei Sun, Xiaokai Song, **Ruofeng Yan**, Lixin Xu, Xiangrui Li*. Vaccination of goats with a glutathione peroxidase DNA vaccine induced partial protection against *Haemonchus contortus* infection. *Veterinary Parasitology*, 2011, 182: 239-247
- (33) Han Kai kai, Xu Lixin, **Yan Ruofeng**, Song Xiaokai, Li Xiangrui*. Cloning, expression and characterization of NAD(+)-dependent glyceraldehyde-3-phosphate dehydrogenase of adult *Haemonchus contortus*. *Journal of Helminthology*, 2011, 85 (4): 421-429
- (34) Fengbin Yan, Lixin Xu, Liheng Liu, **Ruofeng Yan**, Xiaokai Song, Xiangrui Li*. Immunoproteomic analysis of whole proteins from male and female adult *Haemonchus contortus*. *The Veterinary Journal*, 2010, 185(2): 174-179
- (35) YI Daosheng, XU Lixin, **YAN Ruofeng**, LI Xiangrui*. *Haemonchus contortus*: Cloning and characterization of serpin. *Experimental Parasitology*, 2010, 125(4): 363-370
- (36) Yanming Sun, **Ruofeng Yan**, Charles I. Muleke, Guangwei Zhao, Lixin Xu, Xiangrui Li*. Recombinant galectins of *Haemonchus contortus* Parasite induces apoptosis in the peripheral blood lymphocytes of goat. *International Journal of Peptide Research and Therapeutics*, 2007, 13(3): 387-392
- (37) Sun Yanming, **Ruofeng Yan**, Charles I. Mulek, Zhao Guangwei, Xu Lixin, Li Xiangrui*. Vaccination of goats with recombinant galectin antigen induces partial protection against *Haemonchus contortus* infection. *Parasite Immunology*, 2007, 29: 319-326

- (38) Charles I. Muleke, **Yan Ruofeng**, Xu Lixin, Bo Xinwen, Li Xiangrui*. Cloning and sequence analysis of *Hemonchus Contortus* HC58 cDNA. *DNA Sequence*, 2007, 18(3): 176-183
- (39) Charles I. Muleke, **Yan Ruofeng**, Sun Yanming, Zhao Guangwei, Xu lixin, Li Xiangrui*. Vaccination of goats against *Haemonchus contortus* with a recombinant cysteine Protease. *Small Ruminant Research*, 2007, 73: 95-102
- (40) Jing Wang, **Ruofeng Yan**, Lixin Xu, Xiangrui Li*. The second glutamic acid in the C-terminal CRD affects the carbohydrate-binding properties of recombinant galectins of *Haemonchus contortus*. *Veterinary Parasitology*, 2007, 148 (3-4): 247-255

Eimeria spp.

- (41) Song X, Zhang Z, Liu C, Xu L, **Yan R**, Li X*. Evaluation of the persistence, integration, histopathology and environmental release of DNA vaccine encoding *Eimeria tenella* TA4 and chicken IL-2. *Vet Parasitol.* 2016, 229:22-30.
- (42) Zhang Z, Liu X, Yang X, Liu L, Wang S, Lu M, Ehsan M, Gadahi JA, Song X, Xu L, **Yan R**, Li X*. The Molecular Characterization and Immunity Identification of Microneme 3 of *Eimeria acervulina*. *J Eukaryot Microbiol.* 2016, doi: 10.1111/jeu.12318.
- (43) Zhang Z, Liu L, Huang J, Wang S, Lu M, Song X, Xu L, **Yan R**, Li X*. The molecular characterization and immune protection of microneme 2 of *Eimeria acervulina*. *Vet Parasitol.* 2016, 215:96-105.
- (44) Hoan TD, Zhang Z, Huang J, **Yan R**, Song X, Xu L, Li X*. Identification and immunogenicity of microneme protein 2 (EbMIC2) of *Eimeria brunetti*. *Exp Parasitol.* 2016, 162:7-17.
- (45) Xiaokai Song, Yunlu Gao, Lixin Xu, **Ruofeng Yan**, Xiangrui Li*. Partial protection against four species of chicken coccidia induced by multivalent subunit vaccine. *Veterinary Parasitology*, 2015, 212 (3-4): 80-85
- (46) Xiaokai Song#, Xinmei Huang#, **Ruofeng Yan**, Lixin Xu, Xiangrui Li*. Efficacy of chimeric DNA vaccines encoding *Eimeria tenella* 5401 and chicken IFN- γ or IL-2 against coccidiosis in chickens. *Experimental Parasitology*, 2015, 156: 19-25
- (47) Song, Xiaokai, Zhang, Ruirui, Xu, Lixin, **Yan, Ruofeng**, Li, Xiangrui*. Chimeric DNA vaccines encoding *Eimeria acervulina* macrophage migration inhibitory factor (E.MIF) induce partial protection against experimental *Eimeria* infection. *Acta Parasitologica*, 2015, 60 (3) 500-508
- (48) Xiaokai Song, Lixin Xu, **Ruofeng Yan**, Xinmei Huang, Xiangrui Li*. Construction of *Eimeria tenella* multi-epitope DNA vaccines and their protective efficacies against experimental infection. *Veterinary Immunology and Immunopathology*, 2015, 166 (3-4): 79-87
- (49) Xiaokai Song, Zhe Ren, **Ruofeng Yan**, Lixin Xu, Xiangrui Li*. Induction of protective immunity against *Eimeria tenella*, *Eimeria necatrix*, *Eimeriamaxima* and *Eimeria acervulina* infections using multivalent epitope DNA vaccines. *Vaccine*, 2015, 33 (24): 2764-2770
- (50) Huang J, Zhang Z, Li M, Song X, **Yan R**, Xu L, Li X*. Immune protection of Microneme 7 (EmMIC7) against *Eimeria maxima* challenge in chickens. *Avian*

Pathol. 2015, 16:1-35

- (51)Huang J, Zhang Z, Li M, Song X, **Yan R**, Xu L, Li X*. *Eimeria maxima* microneme protein 2 delivered as DNA vaccine and recombinant protein induces immunity against experimental homogenous challenge. Parasitol Int. 2015, 64(5):408-416
- (52)Zhang Z, Wang S, Huang J, Liu L, Lu M, Li M, Sui Y, Xu L, **Yan R**, Song X, Li X*. Proteomic analysis of *Eimeria acervulina* sporozoite proteins interaction with duodenal epithelial cells by shotgun LC-MS/MS. Mol Biochem Parasitol. 2015, 202(2):29-33
- (53)Tran Duc Hoan, Doan Thi Thao, Gadahi, Javaid Ali, Song, Xiaokai, Xu, Lixin, **Yan, Ruofeng** , Li, Xiangrui* , Analysis of humoral immune response and cytokines in chickens vaccinated with *Eimeria brunetti* apical membrane antigen-1 (EbAMA1) DNA vaccine. Experimental Parasitology, 2014, 144: 65-72
- (54)Zhang Z, Huang J, Li M, Sui Y, Wang S, Liu L, Xu L, **Yan R**, Song X, Li X*. Identification and molecular characterization of microneme 5 of *Eimeria acervulina*. PLoS One. 2014, 9(12):e115411
- (55)Hongyan Song#, Baofeng Qiu#, **Ruofeng Yan**, Lixin Xu, Xiaokai Song, Xiangrui Li*. The protective efficacy of chimeric SO7/IL-2 DNA vaccine against coccidiosis in chickens. Research in Veterinary Science, 2013, 94 (3): 562-567
- (56)Zhu, Huili, Xu, Lixin, **Yan, Ruofeng**, Song, Xiaokai, Tang, Fang, Wang, Song, Li, Xiangrui*. Identification and characterization of a cDNA clone-encoding antigen of *Eimeria acervulina*. Parasitology, 2012, 139 (13): 1711-1719
- (57)Zhu, Huili, **Yan, Ruofeng**, Wang, Song, Song, Xiaokai, Xu, Lixin, Li, Xiangrui*. Identification and molecular characterization of a novel antigen of *Eimeria acervulina*, Molecular and Biochemical Parasitology, 2012, 186 (1): 21-28
- (58)Shah, Muhammad Ali A., Song, Xiaokai, Xu, Lixin, **Yan, Ruofeng**, Li, Xiangrui*. Construction of DNA vaccines encoding *Eimeria acervulina* cSZ-2 with chicken IL-2 and IFN-gamma and their efficacy against poultry coccidiosis. Research in Veterinary Science, 2011, 90 (1): 72-77
- (59)Song, Hongyan, **Yan, Ruofeng**, Xu, Lixin, Song, Xiaokai, Shah, Muhammad Ali A., Zhu, Huili, Li, Xiangrui*. Efficacy of DNA vaccines carrying *Eimeria acervulina* lactate dehydrogenase antigen gene against coccidiosis. Experimental Parasitology, 2010, 126 (2): 224-231
- (60)Shah, Mohammad Ali A., **Yan, Ruofeng**, Xu, Yan Lixin, Song, Xiaokai, Li, Xiangrui*. A recombinant DNA vaccine encoding *Eimeria acervulina* cSZ-2 induces immunity against experimental *E. tenella* infection. Veterinary Parasitology, 2010, 169 (1-2): 185-189
- (61)Song, Hongyan, Song, Xiaokai, Xu, Lixin, **Yan, Ruofeng**, Shah, Muhammad Ali A., Li, Xiangrui*. Changes of cytokines and IgG antibody in chickens vaccinated with DNA vaccines encoding *Eimeria acervulina* lactate dehydrogenase. Veterinary Parasitology, 2010, 173 (3-4): 219-227
- (62)Shah, Muhammad Ali A., Song, Xiaokai, Xu, Lixin, **Yan, Ruofeng**, Song, Hongyan, Ruirui, Zhang, Chengyu, Lei, Li, Xiangrui*. The DNA-induced protective immunity with chicken interferon gamma against poultry coccidiosis.

Parasitology Research, 2010, 107 (3): 747-750

- (63) Shah, Mohammed Ali A., Xu, Lixin, **Yan, Ruofeng**, Song, Xiaokai, Li, Xiangrui*. Cross immunity of DNA vaccine pVAX1-cSZ2-IL-2 to *Eimeria tenella*, *E. necatrix* and *E. maxima*. Experimental Parasitology, 2010, 124 (3): 330-333
- (64) Liu, Liheng, Xu, Lixin, Yan, Fengbin, **Yan, Ruofeng**, Song, Xiaokai, Li, Xiangrui*. Immunoproteomic analysis of the second-generation merozoite proteins of *Eimeria tenella*, Veterinary Parasitology, 2009, 164 (2-4): 173-182
- (65) Song, Xiaokai, Xu, Lixin, **Yan, Ruofeng**, Huang, Xinmei, Shah, Mohammed Ali A., Li, Xiangrui*. The optimal immunization procedure of DNA vaccine pcDNA-TA4-IL-2 of *Eimeria tenella* and its cross-immunity to *Eimeria necatrix* and *Eimeria acervulina*. Veterinary Parasitology, 2009, 159 (1): 30-36
- (66) Xu, Qianming#, Song, Xiaokai#, Xu, Lixin, **Yan, Ruofeng**, Shah, Mohammed Ali A., Li, Xiangrui*. Vaccination of chickens with a chimeric DNA vaccine encoding *Eimeria tenella* TA4 and chicken IL-2 induces protective immunity against coccidiosis. Veterinary Parasitology, 2008, 156 (3-4): 319-323

Toxoplasma gondii

- (67) Wang S, Hassan IA, Liu X, Xu L, **Yan R**, Song X, Li X*. Immunological changes induced by *Toxoplasma gondii* Glutathione-S-Transferase (TgGST) delivered as a DNA vaccine. Res Vet Sci. 2015, 99:157-164
- (68) Wang S, Wang Y, Sun X, Zhang Z, Liu T, Gadahi JA, Hassan IA, Xu L, **Yan R**, Song X, Li X*. Protective immunity against acute toxoplasmosis in BALB/c mice induced by a DNA vaccine encoding *Toxoplasma gondii* elongation factor 1-alpha. BMC Infect Dis. 2015, 15:448
- (69) Wang S, Wang Y, Sun X, Zhang Z, Liu T, Gadahi JA, Xu L, **Yan R**, Song X, Li X*. Protective immunity against acute toxoplasmosis in BALB/c mice induced by a DNA vaccine encoding *Toxoplasma gondii* 10 kDa excretory-secretory antigen (TgESA10). Vet Parasitol. 2015, 214(1-2):40-48
- (70) Wang Shuai, Zhang Meng, Liu Xin-chao, Lin Tao, Yang Han-chun, Yuan Shi-shan, Zhao Guang-wei, Ia Hassan, **Yan Ruo-feng**, Song Xiao-kai, Li Xiang-rui*. Investigation on the co-infections of *Toxoplasma gondii* with PRRSV, CSFV or PCV-2 in swine in part of China. JOURNAL OF INTEGRATIVE AGRICULTURE, 2015, 14(9): 1838-1844
- (71) Wang, Shuai, Zhao, Guang-Wei, Wang, Wang, Zhang, Zhen-Chao, Shen, Bo, Hassan, I. A., Xie, Qing, **Yan, Ruo-Feng**, Song, Xiao-Kai, Xu, Li-Xin, Li, Xiang-Rui*. Pathogenicity of Five Strains of *Toxoplasma gondii* from Different Animals to Chickens. KOREAN JOURNAL OF PARASITOLOGY, 2015, 53(2):155-162
- (72) Zhao Guang-wei, Wang Shuai, Wang Wang, Zhang Zhen-chao, Xie Qing, Zhang Meng, Hassan, I. A., **Yan Ruo-feng**, Song Xiao-kai, Xu Li-xin, Li Xiang-rui*. Type I strain of *Toxoplasma gondii* from chicken induced different immune responses with that from human, cat and swine in chicken. JOURNAL OF INTEGRATIVE AGRICULTURE. 2015, 14(5): 956-965
- (73) Ibrahim A Hassan, Shuai Wang, LiXin Xu, **RuoFeng Yan**, XiaoKai Song and Xiangrui Li*. DNA vaccination with a gene encoding *Toxoplasma gondii*

Deoxyribose Phosphate Aldolase (TgDPA) induces partial protective immunity against lethal challenge in mice. *Parasites & Vectors* 2014, 7:431

- (74) Ibrahim A. Hassan, Shuai Wang, LiXin Xu, **RuoFeng Yan**, XiaoKai Song, XiangRui Li*. Immunoglobulin and cytokine changes induced following immunization with a DNA vaccine encoding *Toxoplasma gondii* selenium-dependent glutathione reductase protein. *Experimental Parasitology*, 2014, 146: 1–10
- (75) I. A. HASSAN, S. WANG, L. XU, **R. YAN**, X. SONG & L. XIANGRUI*. Immunological response and protection of mice immunized with plasmid encoding *Toxoplasma gondii* glycolytic enzyme malate dehydrogenase. *Parasite Immunology*, 2014, 36, 674–683
- (76) Zhang M, Yang Z, Wang S, Tao L, Xu L, **Yan R**, Song X, Li X*. Detection of *Toxoplasma gondii* in shellfish and fish in parts of China. *Vet Parasitol*, 2014, 200(1-2):85-89
- (77) Shuai Wang, GuangWei Zhao, Wang Wang, Qing Xie, Meng Zhang, Cheng Yuan, I. A. Hassan, XinChao Liu, LiXin Xu, **RuoFeng Yan**, XiaoKai Song, XiangRui Li*. Pathogenicity of two *Toxoplasma gondii* strains to chickens of different ages infected via intraperitoneal injection. *Avian Pathology*, 2014, 43(1): 1-5
- (78) Guang-wei ZHAO, Bo SHEN, Qing XIE, Li-xin XU, **Ruo-feng YAN**, Xiao-kai SONG, Hassan Ibrahim Adam, Xiang-rui LI*. Isolation and Molecular Characterization of *Toxoplasma gondii* from Chickens in China. *Journal of Integrative Agriculture*, 2012, 11(8): 1347-1353
- (79) GuangWei Zhao, Bo Shen, Qing Xie, Li Xin Xu, **Ruo Feng Yan**, Xiao Kai Song, I.A. Hassan, Xiang Rui Li. Detection of *Toxoplasma gondii* in free-range chickens in China based on circulating antigens and antibodies. *Veterinary Parasitology*, 2012, 185 (2–4): 72-77

Trichinella spiralis

- (80) 张萌萌, 徐立新, 宋小凯, 李祥瑞, **严若峰***. 旋毛虫果糖-1, 6-二磷酸酶基因的克隆表达及生物学特性分析. *畜牧与兽医*, 2015, 47 (9): 5–9
- (81) 张旭亮, 张振超, 苏苗苗, 孙悦, 李鹏飞, 徐立新, 宋小凯, 李祥瑞, **严若峰***. 旋毛虫醛缩酶基因的克隆表达及重组蛋白酶比活性的分析. *中国兽医科学*, 2014, 44(5): 497–502
- (82) F. Tang, L. Xu, **R. Yan**, X. Song and X. Li*. A DNA vaccine co-expressing *Trichinella spiralis* MIF and MCD-1 with murine ubiquitin induces partial protective immunity in mice. *Journal of Helminthology*, 2013, 87(1): 24-33
- (83) F. Tang, L. Xu, **R. Yan**, X. Song and X. Li*. Evaluation of the immune response induced by DNA vaccines expressing MIF and MCD-1 genes of *Trichinella spiralis* in BALB/c mice. *Journal of Helminthology*, 2012, 86(4):430-439