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**研究方向：**分子与免疫寄生虫学 兽医公共卫生

**个人简介：**博士，教授，博士生导师，国务院政府特殊津贴获得者，南京农业大学“133 重点人才工程”优秀学术带头人。曾任动物医学院副院长、院长。现任全国兽医专业学位研究生教育指导委员会委员兼秘书长，农业部兽药评审专家，全国动物卫生标准化技术委员会委员，中国畜牧兽医学会兽医寄生虫学分会副理事长，中国兽医协会理事，中国畜牧兽医学会兽医食品卫生分会常务理事，兽医公共卫生分会常务理事，中国动物学会寄生虫学分委员会常务理事，《亚洲兽医病例报告》、《中国兽医师》、《南京农业大学学报》（自然科学版）、《畜牧与兽医》、《寄生虫与医学昆虫学报》、《中国兽药杂志》、《中国动物传染病学报》、《动物医学进展》等期刊编委。曾任教育部高等学校动物医学类教学指导委员会委员（2003-2013），农业部全国动物防疫专家委员会委员，农业部血吸虫病防治专家咨询委员会委员，国家自然科学基金委员会第十二届、十三届专家评审组成员。

1981.12 河南农学院本科毕业，获学士学位，1988 南京农业大学兽医系获硕士学位，1993 年北京农业大学兽医学院获博士学位。1993~1995 年中国农业科学院哈尔滨兽医研究所兽医生物技术国家重点实验室从事博士后研究。1996.12~1997.12，韩国国立汉城大学生物系分子遗传实验室从事博士后研究。2002.7~2003.1，去美国麻省大学医学院分子遗传与微生物学系访问，从事基因芯片研究。先后赴英国、丹麦、蒙古等国访问交流。

#### **科研项目：**

在研项目

- 1.鸡艾美耳球虫侵入部位特异性关键分子研究 国家自然科学基金
- 2.寄生虫免疫逃避重要分子的鉴定与功能 国家 973 课题
- 3.鸡球虫树突状细胞刺激性抗原的确定及其应用 国家自然科学基金国际合作与交流项目 NSFC-PSF(中巴)

已结题项目：

1. 禽重要病毒的遗传变异分析 国家攀登计划
2. IBD-白细胞介素-2 复合疫苗的研制 江苏省重点攻关项目 A
3. 白细胞介素-2 增强机体免疫力机理研究 教育部回国人员科学基金 A
4. 畜禽新型高效免疫佐剂和疫苗的产业化 863 计划子课题
5. 重组牛、羊白细胞介素-2 下游处理技术的研究和动物区域试验 上海市科技兴农重点攻关项目
6. 毛滴虫诊断规程 农业部行业标准
7. 禽用抗球虫基因工程疫苗的研究 863 计划
8. 捻转血矛线虫半乳糖结合凝集素在免疫和疾病发生中的作用及机理研究 国家自然科学基金
9. 捻转血矛线虫半胱氨蛋白酶新基因 Hc58 生物学特性研究 国家自然科学基金
10. 鸡球虫猪囊虫病基因工程疫苗研究创制 863 计划子课题
11. 捻转血矛线虫排泄分泌抗原蛋白组研究 江苏省自然科学基金
12. 堆型艾美耳球虫免疫功能基因组研究 国家自然科学基金
13. 鸡球虫免疫调节型多价 DNA 疫苗的研制 江苏省科技支撑计划
14. 日本血吸虫病、包虫病、弓形虫病、附红细胞体病等重要人畜共患寄生虫病的防控技术研究子课题 农业部行业专项
15. 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 国家自然科学基金
16. 家畜口蹄疫新型疫苗研制与生产工艺创新子课题偶蹄动物用新型免疫佐剂创制与产业化 十二五“863”计划子项目
17. 日本血吸虫病、包虫病、弓形虫病、附红细胞体病等重要人畜共患寄生虫病的防控技术研究子课题 农业部行业专项
18. 牛毛滴虫病诊断技术 农业部行业标准修订

**荣誉奖项：**

国务院政府特殊津贴获得者  
南京农业大学优秀研究生导师  
全国兽医专业学位研究生教育先进工作者  
江苏省优秀硕士学位论文指导教师  
大北农科技奖-促进奖

### 发明专利:

- 1、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。
- 2、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。
- 3、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。
- 4、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。
- 5、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。
- 6、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。
- 7、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。
- 8、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。
- 9、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:

1. 李祥瑞主编, 动物寄生虫病彩色图谱, 第二版。中国农业出版社, 北京, 2011 年 10 月 (国家出版基金项目现代农业科技专著大系)
2. 汪明主编 李祥瑞副主编, 兽医大辞典, 第二版。中国农业出版社, 北京, 2013 年 12 月
3. 李祥瑞 严若峰 徐立新 宋小凯 陈闻, 兽医寄生虫学数字课程。高等教育出版社 高等教育电子音像出版社, 北京, 2016 年 10 月
4. Shuai Wang, Zhenchao Zhang, Yujian Wang, Javaid A. Gadahi, Lixin Xu, Ruofeng Yan, Xiaokai Song and Xiangrui Li. *Toxoplasma gondii* Elongation Factor1-Alpha (TgEF-1a) Is a Novel Vaccine Candidate Antigen against Toxoplasmosis. *Frontiers in Microbiology*, 2017, 8: Article 168. doi: 10.3389/fmicb.2017.00168

5. 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.
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9. Javaid Ali Gadahi, Bu Yongqian, Muhammad Ehsan, Zhen Chao Zhang, Shuai WANG, Ruo Feng Yan, Xiao Kai Song, Li Xin Xu and Xiang Rui Li. *Haemonchus contortus* excretory and secretory proteins (HcESPs) suppress functions of goat PBMCs in vitro. *Oncotarget*, 2016, 7(24): 35670–35679. doi: 10.18632/oncotarget.9589
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11. Shuai Wang, YuJian Wang, XiaoNi Sun, ZhenChao Zhang, TingQi Liu, Javaid Ali Gadahi, Ibrahim Adam Hassan, LiXin Xu, RuoFeng Yan, XiaoKai Song and XiangRui Li. Protective immunity against acute toxoplasmosis in BALB/c mice

- induced by a DNA vaccine encoding *Toxoplasma gondii* elongation factor 1-alpha. *BMC Infectious Diseases* (2015) 15:448 DOI 10.1186/s12879-015-1220-5
12. Shuai Wang, Yujian Wang, Xiaoni Sun, Zhenchao Zhang, Tingqi Liu, Javaid Ali Gadahi, Lixin Xu, Ruofeng Yan, Xiaokai Song, Xiangrui Li. Protective immunity against acute toxoplasmosis in BALB/c mice induced by a DNA vaccine encoding *Toxoplasma gondii* 10 kDa excretory–secretory antigen (TgESA10). *Veterinary Parasitology*, 2015, 214: 40–48 doi:10.1016/j.vetpar.2015.09.016
  13. Jingwei Huang, Zhenchao Zhang, Menghui Li, Xiaokai Song, Ruofeng Yan, Lixin Xu & Xiangrui Li. Immune protection of Microneme 7 (EmMIC7) against *Eimeria maxima* challenge in chickens. *Avian Pathology*, 2015, 44, (5): 392–400 DOI: 10.1080/03079457.2015.1071780
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22. Meng Zhang<sup>1</sup>, Zhen Yang<sup>1</sup>, Shuai Wang, LongFei Tao, LiXin Xu, RuoFeng Yan, XiaoKai Song, XiangRui Li. Detection of *Toxoplasma gondii* in shellfish and fish in parts of China. *Veterinary Parasitology*, 2014, 200, 1-2: 85-89
23. Shuai Wang, GuangWei Zhao, Wang Wang, Qing Xie, Meng Zhang, Cheng Yuan, Ibrahim Adam Hassan, XinChao Liu, LiXin Xu, RuoFeng Yan, XiaoKai Song, and XiangRui Li. Pathogenicity of two *Toxoplasma gondii* strains in chickens of different ages infected via intraperitoneal injection. *Avian Pathology*, 2014, 43, 1: 1–5
24. Wang Wang, Cheng Yuan, Shuai Wang, XiaoKai Song, LiXin Xu, RuoFeng Yan, I.A. Hasson, XiangRui Li. Transcriptional and proteomic analysis reveal recombinant galectins of *Haemonchus contortus* down-regulated functions of goat PBMC and modulation of several signaling cascades in vitro. *Journal of Proteomics*, 2014, 98, 26:123–137
25. Tran Duc Hoan, Doan Thi Thao , Javaid Ali Gadahi, Xiaokai Song, Lixin Xu, Ruofeng Yan, Xiangrui Li. Analysis of humoral immune response and cytokines in chickens vaccinated with *Eimeria brunetti* apical membrane

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26. Wang Wang, Shuai Wang, Hui Zhang, Cheng Yuan, RuoFeng Yan, XiaoKai Song, LiXin Xu and XiangRui Li. Galectin Hco-gal-m from *Haemonchus contortus* modulates goat monocytes and T cell function in different patterns. *Parasites & Vectors* 2014, 7:342 <http://www.parasitesandvectors.com/content/7/1/342>
  27. 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 DOI: 10.2478/s11686-014-0298-z
  28. 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 <http://www.parasitesandvectors.com/content/7/1/431>
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