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李富花, 女, 1987年毕业于厦门大学生物系获学士学位, 1990年获厦门大学海洋生物学专业硕士学位, 1999年获中国科学院海洋研究所海洋生物学专业博士学位。现任中国科学院海洋研究所研究员, 博士生导师。作为访问学者, 曾赴美国、法国、澳大利亚等国进行合作研究。现担任国际无脊椎动物繁殖与发育学会副理事长, 中国海洋湖沼学会甲壳动物学分会副理事长兼秘书长, 中国海洋学会海洋生物工程分会和中国海洋湖沼学会海洋生物技术分会等多个分会的理事。长期从事海洋动物特别是甲壳动物的繁殖和遗传研究。作为课题负责人主持瑞典国际基金项目2项, 国家自然科学基金面上项目5项, 国际合作重点项目1项, 国家973项目课题1项, 国家863计划项目4项。

现为农业部虾产业技术体系岗位专家, 任虾产业技术体系病害控制功能实验室主任。在对虾的繁殖发育、遗传育种和功能基因组学研究方面取得了一系列成果, 已在国内外学术刊物发表论文100余篇, 其中SCI收录论文80余篇。获国际发明专利授权1项, 申请或获得国家发明专利10余项; 获山东省自然科学二等奖2项, 国家海洋局科技创新成果二等奖2项。

招生专业: 海洋生物学与海洋生物技术

研究方向: 对虾繁殖、发育和遗传, 包括对虾分子免疫学, 功能基因组学和分子遗传育种等

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近五年发表的主要SCI收录论文 (*代表通讯作者):

1. Shihao Li, Shuyue Guo, **Fuhua Li***, Jianhai Xiang, 2014. Characterization and function analysis of an anti-lipopolysaccharide factor (ALF) from the Chinese shrimp *Fenneropenaeus chinensis*. *Developmental and Comparative Immunology* 46: 349-355.
2. Yumiao Sun, **Fuhua Li***, Zheng Sun, Xiaojun Zhang, Shihao Li, Chengsong Zhang, Jianhai Xiang, 2014. Transcriptome analysis of the initial stage of acute WSSV infection caused by temperature change. *PLoS ONE* 9(3): e90732.
3. Shuyue Guo, Shihao Li, **Fuhua Li***, Xiaojun Zhang, Jianhai Xiang, 2014. Modification of a synthetic LPS-binding domain of anti-lipopolysaccharide factor from shrimp reveals strong structure-activity relationship in their antimicrobial characteristics. *Developmental and Comparative Immunology*. 45, 227-232.
4. Rong Wen, **Fuhua Li***, Shihao Li, Jianhai Xiang, 2014. Function of Shrimp STAT during WSSV Infection. *Fish & Shellfish Immunology* 38: 354-260.
5. Rong Wen, **Fuhua Li***, Yusu Xie, Shihao Li, Chengsong Zhang, Kuijie Yu & Jianhai Xiang (2014): Cloning and expression analysis on a homolog of spermatogonial stem-cell renewal factor in *Fenneropenaeus chinensis*. *Invertebrate Reproduction & Development*, DOI: 10.1080/07924259.2014.905501
6. Jingwen Liu, Yang Yu, **Fuhua Li***, Xiaojun Zhang, Jianhai Xiang, 2014. A new anti-lipopolysaccharide factor (ALF) gene with its SNP polymorphisms related to WSSV resistance of *L. vannamei*. *Fish and shellfish immunology*, 39:24-33.
7. Zheng Sun, Shihao Li, **Fuhua Li***, Junbin Zhang, Jianhai Xiang, 2014. Prediction on the invasion route of WSSV infection to shrimp by bioinformatics analysis. *BioMed Research International*, Volume 2014, Article ID 416543, 9 pages.
8. Yang Yu, Jiankai Wei, Xiaojun Zhang, Jingwen Liu, Chengzhang Liu, **Fuhua Li***, Jianhai Xiang, 2014. SNP discovery in the transcriptome of White Pacific Shrimp *Litopenaeus vannamei* by next generation sequencing. *PLoS ONE* 9(1): e87218..
9. Ningning Feng, Dongdong Wang, Rong Wen, **Fuhua Li***, 2014. Functional analysis on immune deficiency (IMD) homolog gene in Chinese shrimp *Fenneropenaeus chinensis*. *Molecular Biology Reports*, 41(3): 1437-1444.
10. Hao Jiang, **Fuhua Li**, Jiquan Zhang, Jinkang Zhang, Bingxin Huang, Yang Yu, Jianhai Xiang, 2014. Comparison of protein expression profiles of the hepatopancreas in *Fenneropenaeus chinensis* with heat-inactivated *Vibrio anguillarum* and white spot syndrome virus. *Marine Biotechnology* 16(1): 111-123.
11. Chengsong Zhang, **Fuhua Li**, Jianhai Xiang, 2014. Effect of starvation on survival, growth, and development of *Exopalaemon carinicauda* larvae, *Aquaculture Research*, 2014: 1-11.
12. Chengsong Zhang, **Fuhua Li**, Jianhai Xiang, 2014. Acute effects of cadmium and copper on survival, oxygen consumption, ammonia-N excretion, and metal accumulation in juvenile *Exopalaemon carinicauda*, *Ecotoxicology and Environmental Safety*, *Ecotoxicology and Environmental Safety* 104:209-214.
13. **Fuhua Li**, Jianhai Xiang, 2013. Recent advances in researches on the innate immunity of shrimp in China. *Developmental and Comparative Immunology* 39: 11-26.
14. **Fuhua Li**, Jianhai Xiang, 2013. Signaling pathways regulating innate immune responses in shrimp. *Fish and Shellfish Immunology* 34:973-980.
15. Yumiao Sun, **Fuhua Li***, Jianhai Xiang, 2013. Analysis on the dynamic changes of the amount of WSSV in Chinese shrimp *Fenneropenaeus chinensis*. *Aquaculture* 376-379: 124-132.

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16. Rong Wen, **Fuhua Li***, Zheng Sun, Shihao Li, Jianhai Xiang, 2013. Shrimp MyD88 Responsive to Bacteria and White Spot Syndrome Virus. *Fish & Shellfish Immunology* 34(2):574-581.
17. Dongdong Wang, **Fuhua Li***, Shihao Li, Yanhong Chi, Rong Wen, Ningning Feng, Jianhai Xiang, 2013. An IκB homologue (FcCactus) in Chinese shrimp *Fenneropenaeus chinensis*. *Developmental and Comparative Immunology* 39(4):352-362.
18. Shihao Li, Xiaojun Zhang, Zheng Sun, **Fuhua Li***, Jianhai Xiang, 2013. Transcriptome analysis on Chinese shrimp *Fenneropenaeus chinensis* during WSSV acute infection. *PLoS ONE* 8(3): e58627.
19. Dongdong Wang, Shihao Li, **Fuhua Li***, 2013. Screening of genes regulated by Relish in Chinese shrimp *Fenneropenaeus chinensis*. *Developmental and Comparative Immunology* 41, 209-216.
20. Yanhong Chi, **Fuhua Li***, Yumiao Sun, Rong Wen, Shihao Li, 2013. Expression and function analysis of Rac1 homolog in Chinese shrimp *Fenneropenaeus chinensis*. *Fish & Shellfish Immunology* 35(3): 927-932.
21. Hao Jiang, **Fuhua Li**, Jiquan Zhang, Jinkang Zhang, Bingxin Huang, Yang Yu, Jianhai Xiang, 2013. Comparison of protein expression profiles of the hepatopancreas in *Fenneropenaeus chinensis* with heat-inactivated *Vibrio anguillarum* and white spot syndrome virus. *Marine Biotechnology*. DOI 10.1007/s10126-013-9538-8.
22. Liyan Wang, **Fuhua Li**, Bing Wang, Jianhai Xiang, 2013. A new shrimp peritrophin-like gene from *Exopalaemon carinicauda* involved in white spot syndrome virus (WSSV) infection. *Fish & Shellfish Immunology* 35(3): 840-846.
23. Rong Wen, **Fuhua Li***, Yusu Xie, Shihao Li, Jianhai Xiang, 2012. A Homolog of Cell Apoptosis Susceptibility Gene Involved in the Ovary Development of Chinese Shrimp *Fenneropenaeus chinensis*. *Biology of Reproduction* 86(1):1-7.
24. **Dongdong Wang, Fuhua Li***, Shihao Li, Rong Wen, Jianhai Xiang, 2012. Expression profiles of antimicrobial peptides (AMPs) and their regulation by Relish. *Chinese Journal of Oceanology and Limnology*, 30 (4): 611-619.
25. Dongdong Wang, **Fuhua Li***, Yanhong Chi, Jianhai Xiang, 2012. Functional relationship among the major antioxidant enzymes in eliminating hydrogen peroxide in penaeid shrimp. *Cell Stress and Chaperone*, 17(4): 423-433.
26. Shihao Li, **Fuhua Li***, Zheng Sun, Jianhai Xiang, 2012. Two spliced variants of insulin-like androgenic gland hormone gene in the Chinese shrimp, *Fenneropenaeus chinensis*. *General and Comparative Endocrinology* 177(2012): 246-255.
27. Shihao Li, **Fuhua Li***, Rong Wen, Jianhai Xiang, 2012. Identification and characterization of the sex-determiner *transformer-2* homologue in Chinese shrimp, *Fenneropenaeus chinensis*. *Sexual Development* 6: 267-278.
28. Liyan Wang, **Fuhua Li**, Bing Wang, Jianhai Xiang, 2012. Structure and partial protein profiles of the peritrophic membrane (PM) from the gut of the shrimp *Litopenaeus vannamei*. *Fish & Shellfish Immunology* 33(6): 1285-1291.
29. M.J. Sellars, **Fuhua Li**, N.P. Preston, J. Xiang, 2010. Penaeid shrimp polyploidy: Global status and future direction. *Aquaculture* 310:1-7.
30. **Fuhua Li**, Dongdong Wang, Shihao Li, Hui Yan, Jinkang Zhang, Bing Wang, Jiquan Zhang, Jianhai Xiang, 2010. A Dorsal homolog (FcDorsal) in the Chinese shrimp *Fenneropenaeus chinensis* is responsive to both bacteria and WSSV challenge. *Developmental and Comparative Immunology* 34,874-883.
31. Shihao Li, **Fuhua Li***, Bing Wang, Yusu Xie, Rong Wen, Jianhai Xiang, 2010. Cloning and expression profiles of two isoforms of a CHH-like gene specifically expressed in male Chinese shrimp, *Fenneropenaeus chinensis*. *General and Comparative Endocrinology* 167, 308-316.
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33. Yusu Xie, **Fuhua Li***, Bing Wang, Shihao Li, Dongdong Wang, Hao Jiang, Chengsong Zhang, Kuijie Yu, Jianhai Xiang, 2010. Screening of genes related to ovary development in Chinese shrimp *Fenneropenaeus chinensis* by suppression subtractive hybridization. *Comparative Biochemistry and Physiology, Part D* 5 (2010) 98-104
34. Wei Luan, **Fuhua Li***, Jiquan Zhang, Rong Wen, Yutao Li and Jianhai Xiang, 2010. Identification of a novel inducible cytosolic Hsp70 gene in Chinese shrimp *Fenneropenaeus chinensis* and comparison of its expression with the cognate Hsc70 under different stresses. *Cell Stress & Chaperone* 15: 83-93.
35. **Fuhua Li***, Hui Yan, Dongdong Wang, T.A. Jose Priya, Shihao Li, Bing Wang, Jiquan Zhang, Jianhai Xiang, 2009. Identification of a novel relish homolog in Chinese shrimp *Fenneropenaeus chinensis* and its function in regulating the transcription of antimicrobial peptides. *Developmental and Comparative Immunology* 33, 1093-1101.
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