



个人简介

研究方向：人类和动物病原性细菌致病机理

针对病原菌的典型流行菌株：1）开发生化分离纯化、转座子随机突变体文库、突变体确定文库、组学（基因组学、蛋白质组学和 RNA 组学）以及二代测序技术等新颖策略或技术鉴定其毒力因子；2）采用信号传导研究方法研究其感受胞内外以及宿主各种信号 / 胁迫的生物化学机制，进一步研究其信号转导并控制毒力表达的各种调控机制；3）描绘病原菌在致病过程以及环境适应过程中不同的毒力调控网络；4）为防治药物和新型疫苗的设计和组装提供靶标和相关分子器件，进行疫苗应用开发。目前主要研究兴趣是迟缓爱德华氏菌和溶藻弧菌中群体感应系统（Quorum sensing）、三型分泌系统（TTSS）和六型分泌系统（T6SS）及其调控机制研究。合作单位包括美国哈佛医学院、宾夕法尼亚大学、康涅狄格大学、威斯康辛大学、瑞典 Umeå University、英国诺丁汉大学、韩国首尔国立大学和西班牙巴塞罗那自由大学等相关课题组。

研究方向

分子生物学

研究成果及主要发表文章

1. Wei LF, Qiao HX, Sit Brandon, Yin KY, Yang GH, Ma RQ, Ma JB, Yang C, Yao J, Ma Y, Xiao JF, Liu XH, Zhang YX, Waldor MK, Wang QY*. A bacterial pathogen senses host mannose to coordinate virulence. Cell Reports, submitted. □
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