

CURRICULUM VITAE

| Personal Information | | | |
|--|--|--------------------------|------|
| Name | Qi Huang | Gender | Male |
| Position Title | | Associate Professor | |
| Working Department | | Veterinary Public health | |
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| Research Interest | | | |
| <p>The research in my lab is mainly focused on studying the pathogenesis and bacteria-host interactions of zoonotic bacterial pathogens, such as <i>Streptococcus suis</i>, pathogenic <i>E. coli</i> etc, as well as developing of novel antimicrobial drugs, vaccines, and detection reagents. Our research topics include:</p> <p>(1) Mechanisms of pathogenesis: Revealing the roles of bacterial protein secretion systems in bacterial pathogenesis of pathogenic <i>E. coli</i>. Identifying of novel virulence factors by using new and high throughput technologies, including Transposon insertion sequencing (TraDis), CRISPR interference, dual RNA-Seq.</p> <p>(2) Molecular epidemiology of foodborne pathogens: Investigating the epidemiological characteristics of important foodborne bacterial pathogens along meat production chains.</p> <p>(3) Development of novel antibacterial drugs and vaccines.</p> <p>(4) Antibody engineering: Developing microbial platforms for screening and producing engineered single-chain antibodies and nanobodies.</p> | | | |
| Education & Working Experience | | | |
| Working experience: 2017.10 - Now, Associate Professor, College of Veterinary Medicine, Huazhong Agricultural University | | | |
| Education: 2013.09 - 2017.19, University of Dundee, UK, PhD in Molecular Microbiology 2011.09 - 2013.06, Huazhong Agricultural University, China, Master in Preventive Veterinary Medicine 2007.09 - 2011.06, Huazhong Agricultural University, China, Bachelor in Biotechnology | | | |
| Publications | | | |



1. **Huang Q**, Alcock F, Kneuper H, Deme JC, Rollauer SE, Lea SM, Berks BC, Palmer T*. A signal sequence suppressor mutant that stabilizes an assembled state of the twin arginine translocase. *Proc Natl Acad Sci U S A*. 2017 Mar 7; 114(10):E1958-E1967.
2. **Huang Q**, Palmer T*. Signal peptide hydrophobicity modulates interaction with the twin-arginine translocase. *MBio*. 2017 Aug 1; 8(4). pii: e00909-17.
3. Liu J, Yin F, Liu T, Li S, Tan C, Li L, Zhou R, **Huang Q***. The Tat system and its dependent cell division proteins are critical for virulence of extra-intestinal pathogenic *Escherichia coli*. *Virulence*. 2020 Dec;11(1):1279-1292.
4. Nguyen V, Zhang L, ThiThanh T, HoangSonb H, Ngoc T, **Huang Q***, Zhou R*. Association between the phenotypes and genotypes of antimicrobial resistance in *Haemophilus parasuis* isolates from swine in Quang Binh and Thua Thien Tue provinces, Vietnam. *Engineering*. 2020 Feb; 6(1):40-48.
5. Zhang Q#, **Huang Q#**, Fang Q, Li H, Tang H, Zou G, Wang D, Li S, Bei W, Chen H, Li L*, Zhou R*. Identification of genes regulated by the two-component system response regulator NarP of *Actinobacillus pleuropneumoniae* via DNA-affinity-purified sequencing. *Microbiol Res*. 2020 Jan;230:126343.
6. Li B#, **Huang Q#**, Cui A, Liu X, Hou B, Zhang L, Liu M, Meng X, Li S*. Overexpression of outer membrane protein X (OmpX) compensates for the effect of tolC inactivation on biofilm formation and curli production in extraintestinal pathogenic *Escherichia coli* (ExPEC). *Front Cell Infect Microbiol*. 2018 Jun 22;8:208.
7. Zhu Z#, **Huang Q#**, Hong X#, Chen X, Lu Y, Chen Z, Wang C, Meng X, Xu Q, Li S*. Isolation and characterization of *Salmonella* in pork samples collected from retail and wholesale markets in each season from 2016 to 2018 in Wuhan, China. *J Appl Microbiol*. 2020 Mar;128(3):875-883.
8. Huang C, Yang X, Huang J, Liu X, Yang X, Jin H, **Huang Q**, Li L*, Zhou R*. Porcine Beta-defensin 2 provides protection against bacterial infection by a direct bactericidal activity and alleviates inflammation via interference with the TLR4/NF- κ B Pathway. *Front Immunol*. 2019 Jul 18;10:1673.
9. Van C, Thanh T, Zou G, Jia M, Wang Q, Zhang L, Ding W, **Huang Q**, Zhou R*. Characterization of serotypes and virulence genes of *Haemophilus parasuis* isolates from Central Vietnam. *Vet Microbiol*. 2019 Mar;230:117-122.
10. Jiu Y#, Meng X#, Hong X, **Huang Q**, Wang C, Chen Z, Zhao L, Liu X, Lu Y, Li S*. Prevalence and characterization of *Salmonella* in three typical commercial pig abattoirs in Wuhan, China. *Foodborne Pathog Dis*. 2020 Oct;17(10):620-627.