



所属学院 生物工程学院

学科领域 生物学

邮箱 dahaiyang@ecust.edu.cn

个人简介

阳大海，博士，副教授，硕士生导师。华东理工大学和美国密西根大学联合培养博士，2015年毕业后留校工作，2018年晋升副教授，现为生物反应器工程国家重点实验室固定人员。先后入选中国科协“青年人才托举工程”、上海市“浦江人才计划”和“晨光人才计划”、华东理工大学青年英才培育计划。主持国家自然科学基金、参与国家重点研发计划等项目。以第一/通讯作者在 *Immunity*, *Nature Communications*, *PLoS Pathogens*, *Cellular Microbiology* 等领域内高水平期刊发表研究论文 10 余篇，以共同作者在 *Nature*, *Cell*, *Cell Host & Microbe* 等期刊发表论文 15 篇，被 SCI 刊源引用 730 余次；担任国家自然科学基金委农业动物科学处基金评审，*Microbial Cell* 杂志编委；中国水产学会“鱼病专业委员会”、中国微生物学会、中国免疫学会会员；为 *Journal of Immunology*, *Communications Biology*, *Cellular Microbiology*, *Frontiers in Cellular and Infection Microbiology*, *Scientific Reports*, *JoVE*, *Fish & Shellfish Immunology* 等领域内 SCI 杂志审稿 30 余篇，主办首届“斑马鱼疾病模型青年论坛”，在中国免疫学学术大会、中国微生物学会学术年会、中国水产学会鱼病专业研讨会、斑马鱼 PI 大会、国际斑马鱼大会、世界水产大会（AQUA）以及 Zebra fish Diseases Models Conference 等国内外专业领域学术会议做报告 20 余次。

研究方向

1. 细菌感染激活细胞焦亡分子机制
2. 脓毒症多器官损伤发生机制
3. 鱼类抗感染免疫分子机制

研究成果及主要发表文章

1. Yang D., He Y., Muñoz-Planillo R., Liu Q.*, Núñez G.*. Caspase-11 requires the pannexin-1 channel and the purinergic P2X7 pore to mediate pyroptosis and endotoxic shock. *Immunity* 2015, 43: 923-932. (Q1, IF=24.082)
Previewed by: Aude de Gassart and Fabio Martinon*. Pyroptosis: Caspase-11 unlocks the gates of death. *Immunity* 2015, 43: 835-837.
2. Yang D., Zheng X., Chen S., Wang Z., Xu W., Tan J., Hou M., Wang W., Gu Z., Wang Q., Zhang R., Zhang Y., Liu Q.*. Sensing of cytosolic LPS through caspase2 pyrin domain mediates noncanonical inflammasome activation in zebrafish. *Nature Communications* 2018, 9: 3025. (Q1, IF=12.353)
3. Yang D.#, Liu X. #, Xu W., Gu Z., Yang C., Zhang L., Tan J., Zheng X., Wang Z., Quan S., Zhang Y., Liu Q.*. The *Edwardsiella piscicida* thioredoxin-like protein inhibits ASK1-MAPKs signaling cascades to promote pathogenesis during infection. *PLoS Pathogens* 2019, 15(7): e1007917. (Q2, IF=6.4)
4. Wen Y., Chen S., Jiang Z., Wang Z., Tan J., Hu T., Wang Q., Zhou X., Zhang Y., Liu Q., Yang D.*. Haemolysin promotes bacterial outer membrane vesicles-induced pyroptotic-like cell death in zebrafish. *Cellular Microbiology* 2019, e13010. (Q2, IF=4.41)
5. Cao H., Yang C., Quan S., Hu T., Zhang L., Zhang Y., Yang D.*, Liu Q.*. Novel T3SS effector EseK in *Edwardsiella piscicida* is chaperoned by EscH and EscS to express virulence. *Cellular Microbiology* 2018, 20 (1): e12790. (Q2, IF=4.41)
6. Wang Z., Lin L., Chen W., Zheng X., Zhang Y., Liu Q., Yang D.*. Neutrophil plays critical role during *Edwardsiella piscicida* immersion infection in zebrafish larvae. *Fish and Shellfish Immunology* 2019, 87: 565-572. (Q1, IF=3.185)
7. Cao H., Han F., Tan J., Hou M., Zhang Y., Yang D.*, Liu Q.*. *Edwardsiella piscicida* T3SS effector EseK inhibits MAPKs phosphorylation and promotes bacterial colonization in zebrafish larvae. *Infection and Immunity* 2018, 68 (9): e00233-18. (Q2, IF=3.63)
8. Xu W., Gu Z., Zhang L., Zhang Y., Liu Q., Yang D.*. *Edwardsiella piscicida* virulence effector trxlp promotes the NLRC4 inflammasome activation during infection. *Microbial Pathogenesis* 2018, 123: 496-504. (Q4, IF=2.332)
9. Yang D., Liu Q.*, Ni C., Li S., Wu H., Wang Q., Xiao J., Zhang Y., Gene expression profiling in live attenuated *Edwardsiellatarda* vaccine immunized and challenged zebrafish: Insights into the basic mechanisms of protection seen in immunized fish. *Developmental and Comparative Immunology* 2013, 40: 132-141. (Q1, IF=3.25)
10. Yang D., Liu Q.*, Yang M., Wu H., Wang Q., Xiao J., Zhang Y.*. RNA-seq liver transcriptome analysis reveals an activated MHC-I pathway and an inhibited MHC-II pathway at the early stage of vaccine immunization in zebrafish. *BMC genomics* 2012, 13: 319. (Q2, IF=3.620)
11. Hara H., Seregin SS., Yang D., Fukase K., Chamaillard M., Emad SA., Inohara N., Chen G.Y., Nunez G.*. NLRP6 recognizes lipoteichoic acid and activates caspase-11 and caspase-1 to regulate Gram-positive pathogen infection. *Cell* 2018, 178: 31259-5 (Q1, IF=28.71)
12. He Y., Zeng M.Y., Yang D., Motro B., Núñez G.*. Nek7 is an essential mediator of NLRP3 activation downstream of potassium efflux. *Nature* 2016, 530(7590): 354-7. (Q1, IF=41.577)
13. Chen S., Yang D., Wen Y., Jiang Z., Zhang L., Jiang J., Chen Y., Hu T., Wang Q., Zhang Y., Liu Q.*. Dysregulated hemolysin liberates bacterial outer membrane vesicles for cytosolic lipopolysaccharide sensing. *PLoS Pathogens* 2018, 14(8): e1007240 (Q2, IF=6.158)
14. Chen H., Yang D., Han F., Tan J., Wang Q., Zhang Y., Liu Q.*. Bacterial T6SS effector EvpP prevents NLRP3 inflammasome activation by inhibiting Ca²⁺-dependent JNK pathway. *Cell Host & Microbe* 2017, 21: 47-58. (Q1, IF=17.872)
15. Xu C., Yan Y., Tan J., Yang D., Jia X., Wang L., Xu Y., Cao S., Sun S., Biodegradable Nanoparticles of Polyacrylic Acid-Stabilized Amorphous CaCO₃ for Tunable pH-Responsive Drug Delivery and Enhanced Tumor Inhibition. *Advanced Functional Materials* 2019, 29 (24): 1808146. (Q1, IF=13.325)