



江海海 博士

副教授，硕士研究生导师

● 教育和工作背景:

2007-2011 年，西南大学，动物医学专业，学士；

2011-2014 年，中国农业科学院，预防兽医学专业，硕士；

2014-2019 年，中国农业大学/中国科学院微生物研究所，预防兽医学专业，联合培养博士；

2020/11-2025/12，南昌大学基础医学院，讲师，硕士研究生导师；

2025/12-至今，南昌大学基础医学院，副教授，硕士研究生导师。

● 研究兴趣、领域:

从事感染免疫与蛋白质结构方面的研究，主要致力于利用病原学、免疫学、结构生物学、生物化学等技术手段解析病原微生物关键靶点的结构与功能及其分子互作机制，并基于此开展抗感染干预策略的研发。近年来，在 *Science*、*Nature Microbiology*、*mBio*、*Structure*、*Journal of Molecular Biology*、*International Journal of Biological Macromolecules* 等学术期刊发表论文 30 余篇，其中第一作者或通讯作者（含共同）论文 25 篇；主持国家自然科学基金 1 项、江西省自然科学基金 3 项。

● 学术兼职:

中国微生物学会会员；中国生物物理学会会员；*International Journal of Biological Macromolecules*、*Applied Microbiology and Biotechnology*、*Molecular Biomedicine*、*Virology* 等期刊审稿人；*PLoS One* 和 *Scientific Reports* 期刊学术编辑。

● 主要成果、荣誉、奖励（#第一作者，*通讯作者）:

[1] Peng Q#, Li J#, **Jiang H#**, Cheng X#, Nag P, Kleinau G, Lamb TD, Busche L, Lu Q, Zhou S, Liu Y, Zhang Y, Lv S, Wan S, Yang T, Chen Y, Zhang W, Nan W, Fu Y, Che T, Li Y, Liao H, Duan J, Schapiro I, Scheerer P*, Zhang J*. Cryo-electron microscopy structures of human cone visual pigments. *Science*. 2026, 392(6805):eadz8141.

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- [3] Huang KA#*, Rijal P#, **Jiang H#**, Wang B#, Schimanski L, Dong T, Liu YM, Chang P, Iqbal M, Wang MC, Chen Z, Song R, Huang CC, Yang JH, Qi J, Lin TY, Li A, Powell TJ, Jan JT, Ma C, Gao GF*, Shi Y*, Townsend AR*. Structure-function analysis of neutralizing antibodies to H7N9 influenza from naturally infected humans. **Nat Microbiol**. 2019, 4(2): 306-315.
- [4] **Jiang H**, Li W, Zhou X, Zhang J, Li J*. Crystal structures of coronaviral main proteases in complex with the non-covalent inhibitor X77. **Int J Biol Macromol**. 2024, 276(Pt 1): 133706.
- [5] Lin C#, **Jiang H#**, Li W, Zeng P, Zhou X, Zhang J*, Li J*. Structural basis for the inhibition of coronaviral main proteases by ensitrelvir. **Structure**, 2023, 31(9): 1016-1024.e3.
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- [11] **Jiang H**#, Zou X#, Zeng P, Zeng X, Zhou X, Wang J, Zhang J*, Li J*. Crystal structures of main protease (M^{pro}) mutants of SARS-CoV-2 variants bound to PF-07304814. **Mol Biomed**. 2023, 4(1): 23.
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- [14] **Jiang H***, Li J, Jian Y, Yang T, Zhang J*, Li J*. Expression, purification, and crystal structure of mpox virus A41 protein. **Protein Expr Purif**. 2024, 219:106480.
- [15] **Jiang H**, Zou X, Zhou X, Zhang J*, Li J*. Crystal structure of SARS-CoV-2 main protease (M^{pro}) mutants in complex with the non-covalent inhibitor CCF0058981. **Biochem Biophys Res Commun**. 2024, 692:149352.
- [16] **Jiang H**#, Zhou Y#, Zou X#, Hu X, Wang J, Zeng P, Li W, Zeng X, Zhang J*, Li J*. Evaluation of the Inhibition Potency of Nirmatrelvir against Main Protease Mutants of SARS-CoV-2 Variants. **Biochemistry**. 2023, 62(13):2055-2064.
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- [18] Yang T#, Li J#, Cheng X#, Lu Q#, Farooq Z#, Fu Y, Lv S, Nan W, Yu B, Duan J, Zhang Y, Fu Y, **Jiang H***, McCormick PJ*, Li Y*, Zhang J*. Structural analysis of the

human C5a-C5aR1 complex using cryo-electron microscopy. **J Struct Biol.** 2024, 216(3):108117.

[19] Peng Q#, **Jiang H#**, Cheng X#, Wang N#, Zhou S, Zhang Y, Yang T, Chen Y, Zhang W, Lv S, Nan W, Wang J, Fan GH*, Li J*, Zhang J*. Cryo-EM Structure and Biochemical Analysis of the Human Chemokine Receptor CCR8. **Biochemistry.** 2024, 63(15):1892-1900.

[20] 指导本科生获得全国大学生生命科学竞赛（2023，创新创业类）二等奖.

● **联系方式:**

E-mail: haihaijiang2020@ncu.edu.cn.