

Liangliang HAN

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Education

City University of Hong Kong, Hong Kong

Sep.2020 - now

Ph.D. Department of Biomedical Sciences

Supervisor: DENG Xin

Kochi University, Japan

Oct. 2017- Sep. 2019

M.S. Graduate School of Integrated Arts and Sciences

Master of Agriculture Science GPA: 3.6/4

Heilongjiang University, China

Sep. 2012 - Jul. 2016

B.S. College of Life Science

Bachelor of Biological Engineering GPA: 3.31/4

Publications

1. Effects of plant-tissue permeability on phytopathogen invasion and population bottlenecks.

Gaofei Jiang, Yuling Zhang, Min Chena, Josep Ramonedac, **Liangliang Han.**, ... & Yong Zhang & Zhong Wei. (2023) *Nature communications*. (Manuscript under consideration, the second revision)

2. Functional characterization of two 3-dehydroquinases of AroQ1 and AroQ2 in the shikimate pathway and expression of genes for the type III secretion system in *Ralstonia solanacearum*.

Zhang, Q., Wu, B., **Han, L.**, Yu, D., Liang, T., Wang, Y., & Guo, T. (2023). *Frontiers in Microbiology*, 14, 1186688. DOI: [10.3389/fmicb.2023.1186688](https://doi.org/10.3389/fmicb.2023.1186688)

3. Maintenance of tRNA and elongation factors supports T3SS proteins translational elongations in pathogenic bacteria during nutrient starvation.

Sun, Y., Shao, X., Zhang, Y., **Han, L.**, Xie, Y., ... & Deng, X. (2022). *Cell & Bioscience*, 12(1), 1-17. DOI: [10.1186/s13578-022-00884-6](https://doi.org/10.1186/s13578-022-00884-6)

4. CysB regulator positively regulates cysteine synthesis, expression of type III secretion system genes, and pathogenicity in *Ralstonia solanacearum*.

Chen, M., Zhang, W., **Han, L.**, Ru, X., Cao, Y., Hikichi, Y., ... & Zhang, Y. (2022). *Molecular Plant Pathology*, 23(5), 679-692. DOI: [10.1111/mpp.13189](https://doi.org/10.1111/mpp.13189)

5. Integrated regulatory network in *Pseudomonas syringae* reveals dynamics of virulence.

Shao, X., Tan, M., Xie, Y., Yao, C., Wang, T., Huang, H., **Han, L.**, ... & Deng, X. (2021). *Cell Reports*, 34(13). DOI: [10.1016/j.celrep.2021.108920](https://doi.org/10.1016/j.celrep.2021.108920)

6. Expression of *Ralstonia solanacearum* type III secretion system is dependent on a novel type 4 pili (T4P) assembly protein (TapV) but is T4P independent

Zhang, Y., Han, L., Zhang, L., Xu, C., Shi, X., Hikichi, Y., & Ohnishi, K. (2020) *Molecular plant pathology*, 21(6), 777-793. DOI: [10.1111/mpp.12930](https://doi.org/10.1111/mpp.12930) (co-first author)

7. Functional characterization of RsRsgA for ribosome biosynthesis and expression of Type III secretion system in *Ralstonia solanacearum*.

Li, J., Han, L., Chen, N., Zhu, C., Gao, Y., Shi, X., ... & Ohnishi, K. (2020). *Molecular Plant-Microbe Interactions*, 33(7), 972-981. DOI: [10.1094/MPMI-10-19-0294-R](https://doi.org/10.1094/MPMI-10-19-0294-R) (co-first author)

8. Involvement of a PadR regulator PrhP on virulence of *Ralstonia solanacearum* by controlling detoxification of phenolic acids and type III secretion system

Zhang, Y., Zhang, W., Han, L., Li, J., Shi, X., Hikichi, Y., & Ohnishi, K. (2019). *Molecular plant pathology*, 20(11), 1477-1490. DOI: [10.1111/mpp.12854](https://doi.org/10.1111/mpp.12854)

9. Presentation: Functional characterization of the copper resistant system in *Ralstonia solanacearum*.

Annual meeting of Japan Bioscience, Biotechnology and Geochemistry. Yamaguchi, Japan, Jun. 2018.

Research Experience

Southwest University, China
College of Resources and Environment

Jun. 2016 - Sep. 2017 & Sep. 2019 – Aug. 2020

Research Area

During the PhD's degree:

Project 1: Genome-wide analysis of the regulatory network of key transcriptional regulators in *Pseudomonas aeruginosa*.

Project 2: RNA epigenetics: Transcriptome-wide Mapping of Internal N7- Methylguanosine Methylome in *Pseudomonas aeruginosa*. T

Project 3: Molecular mechanism of two-component systematic regulation of virulence of *Pseudomonas syringae*.

During the master's degree:

Project 1: Sequence tag-based analysis of microbial population dynamics during infection.

Project 2: Genome-Scale identification of gene functions using Tn-seq in *Ralstonia solanacearum*.

Project 3: Molecular mechanism of virulence regulation in *Ralstonia solanacearum*.