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## 學經歷

### Education

2000 – 2005	Ph.D., Department of Life Science, National Tsing Hua University
1994 – 1996	M.S., Graduate Institute of Microbiology and Immunology, National Defense Medical Center
1990 – 1994	B.S., Department of Medical Technology, China Medical College

### Research experiences

2015	Professor, Department of Microbiology and Immunology, Chang Gung University
2013	Professor, Department of Microbiology, School of Medicine, China Medical University
2011	Assistant Professor, Department of Urology, The University of Texas Southwestern Medical Center
2005	Post-doctoral fellow, Infectious Disease Control and International Medicine, Niigata University, Japan

## 研究方向(Research Description)

### 1. Infection and immunity

Our current studies are focused on the investigation of molecular mechanisms of several bacterial components that involved in bacteria-induced pathogenesis of host. We have been explored certain virulence factors which were demonstrated to associate with *Helicobacter pylori*-induced pathogenesis. In addition, the functional studies of cytolethal distending toxin (CDT) secreted from *Campylobacter jejuni* as well as its theranostic application are currently exploring in our laboratory.

### 2. Cancer biology and translational medicine

Seventy thousand patients were diagnosed with cancer in Taiwan every year. We have investigated some potent drugs against several types of cancers and explored their molecular mechanisms. The aims of discovery novel agents for inhibiting tumor cells are developing and charactering in our laboratory. Furthermore, we recently have been collaborated with physicians for the research of translational medicine. Our research interests including infectious diseases, applied microbiology, and cancer biology which have been established in our collaborative teams.

## 著作(Selected Recent Publication) (\*, corresponding author)

- Lin HJ, Jiang ZP, Lo HR, Feng CL, Chen CJ, Yang CY, Huang MZ, Wu HY, Chen YA, Chen Y, Chiu CH, **Lai CH\***. Coalescence of RAGE in lipid rafts in response to cytolethal distending toxin-induced inflammation. *Front Immunol.* 2019;10:1-10.
- Chen YH, Tsai WH, Wu HY, Chen CY, Hsu HY, Chen WW, Chen YW, Chang WW, Lin TL, Lai HC, Lin YH, **Lai CH\***. Probiotic *Lactobacillus* spp. act against *Helicobacter pylori*-induced inflammation. *J Clin Med.* 2019; 8:1-16.
- Lien HM, Wu HY, Hung CL, Chen CJ, Wu CL, Chen KW, Chang SJ, Chen CC, Lin HJ, **Lai CH\***. Antibacterial activity of ovatodioid isolated from *Anisomeles indica* against *Helicobacter pylori*. *Sci Rep.* 2019;9(1):1-7.
- Huang J, Lo UG, Wu S, Wang B, Pong RC, **Lai CH**, Lin H, He D, Hsieh JT, Wu K\*. The roles and mechanism of IFIT5 in bladder cancer epithelial-mesenchymal transition and progression. *Cell Death Dis.* 2019;10(6):1-12.
- Chen YA, Tzeng DTW, Huang YP, Lin CJ, Lo UG, Wu CL, Lin H, Hsieh JT, Tang CH, **Lai CH\***. Antrocin Sensitizes

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- Lo UG, Pong RC, Yang D, Gandee L, Hernandez E, Dang A, Lin CJ, Santoyo J, Ma S, Sonavane R, Huang J, Tseng SF, Moro L, Arbini AA, Kapur P, Raj GV, He D, **Lai CH**, Lin H, Hsieh JT\*. IFN- $\gamma$ -induced IFIT5 promotes epithelial-to-mesenchymal transition in prostate cancer via microRNA processing. *Cancer Res*. 2019;79(6):1098-1112.
- Hu PJ, Chen MY, Wu MS, Lin YC, Shih PH, **Lai CH**\*, Lin HJ\*. Clinical Evaluation of CA72-4 for Screening Gastric Cancer in A Healthy Population: A Multicenter Retrospective Study. *Cancers*. 2019;11(5):1-8.
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- Chen YA, Shih HW, Lin YC, Hsu HY, Wu TF, Tsai CH, Wu CL, Wu HY, Hsieh JT, Tang CH, **Lai CH**\*. Simvastatin sensitizes radioresistant prostate cancer cells by compromising DNA double-strand break repair. *Front Pharmacol*. 2018;13:600.
- Chen YA, Lin YJ, Lin CL, Lin HJ, Wu HS, Hsu HY, Sun YC, Wu HY, **Lai CH**\*, Kao CH\*. Simvastatin therapy for drug repositioning to reduce the risk of prostate cancer mortality in patients with hyperlipidemia. *Front Pharmacol*. 2018;22:225.
- Chen YA, Lien HM, Kao MC, Lo UG, Lin LC, Lin CJ, Chang SJ, Chen CC, Hsieh JT, Lin H, Tang CH, **Lai CH**\*. Sensitization of radioresistant prostate cancer cells by resveratrol isolated from *Arachis hypogaea* stems. *PLoS One*. 2017;12(1):1-16.
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