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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
2009 Associate Professor, Department of Microbiology, School of Medicine, China Medical University
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)

- **Lai CH***, Huang JC, Cheng HH, Wu MC, Huang MZ, Hsu HY, Chen YA, Hsu CY, Pan YJ, Chu YT, Chen TJ, Wu YF, Sit WY, Liu JS, Chiu YF, Wang HJ, Wang WC*. *Helicobacter pylori* cholesterol glucosylation modulates autophagy for increasing intracellular survival in macrophages. *Cell Microbiol.* 2018;27:e12947 doi: 10.1111/cmi.12947. [Epub ahead of print].
- 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.
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HIV-infected patients in Taiwan. *J Ethnopharmacol.* 2018;12:71-80.

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- 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.
- Lin LC, Gao AC, **Lai CH***, Hsieh JT*, Lin H*. Induction of neuroendocrine differentiation in castration resistant prostate cancer cells by adipocyte differentiation-related protein (ADRP) delivered by exosomes. *Cancer Lett.* 2017;391:74-82.
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- Peng YH, Chen CK, Su CH, Liao WC, Muo CH, Hsia TC, Sung FC, **Lai CH***, Kao CH*. Increased risk of chronic obstructive pulmonary disease among patients with *Helicobacter pylori* infection: a population-based cohort study. *Clin Respir J.* 2017;11:558-565.
- Liao WC, Huang MZ, Wang ML, Lin CJ, Lu TL, Lo HR, Pan YJ, Sun YC, Kao MC, Lin HJ, **Lai CH***. Statin decreases *Helicobacter pylori* burden in macrophages by promoting autophagy. *Front Cell Infect Microbiol.* 2017;6(203):1-11.
- Lin CJ, Liao WC, Chen YA, Lin HJ, Feng CL, Lin CL, Lin YJ, Kao MC, Huang MZ, **Lai CH***, Kao CH*. Statin therapy is associated with reduced risk of peptic ulcer disease in the Taiwanese population. *Front Pharmacol.* 2017; 8(210):1-8.
- Lin HJ, Hsu FY, Chen WW, Lee CH, Lin YJ, Chen YY, Chen CJ, Huang MZ, Kao MC, Lai HC, **Lai CH***. *Helicobacter pylori* activates HMGB1 expression and recruits RAGE into lipid rafts to promote inflammation in gastric epithelial cells. *Front Immunol.* 2016;7:1-11.
- Lin CJ, Lien HM, Lin HJ, Huang CL, Kao MC, Chen YA, Wang CK, Chang HY, Chang YK, **Lai CH***. Modulation of T cell response by *Phellinus linteus*. *J Biosci Bioeng.* 2016;121:84-88.
- Lin CJ, Liao WC, Lin HJ, Hsu YM, Lin CL, Chen YA, Feng CL, Chen CJ, Kao MC, **Lai CH***, Kao CH*. Statins attenuate *Helicobacter pylori* CagA translocation and reduce incidence of gastric cancer. *PLoS One.* 2016;11(1):1-16.
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Pseudomonas aeruginosa. Int Braz J Urol. 2015;41(1):67-77.

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