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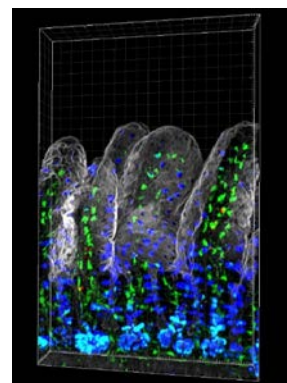
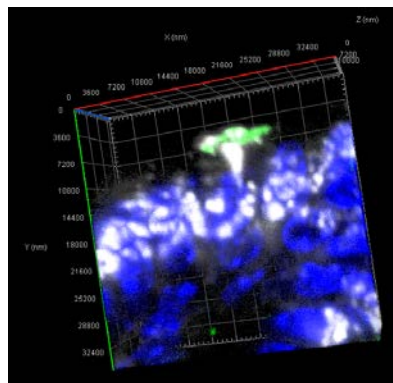
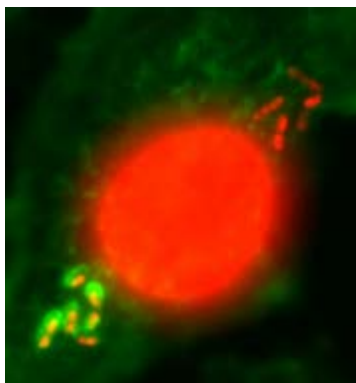
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實驗室研究主題 Our research

我們實驗室著重於利用顯微技術研究微生物與宿主組織交互作用，並利用黏膜共生真菌作為模型探討這樣的交互作用對微生物共生或感染的影響。我們亦同時與台灣疾管署、位於巴黎巴斯德研究中心的世界衛生組織李斯特菌歐洲合作實驗室、以及國內各大醫學中心合作，利用基因體學研究李斯特菌全球演化，並進一步結合動物模型及實驗室各種離體模型以了解李斯特菌症。我們歡迎有志於學習並從事感染症研究的學生加入我們的團隊。

Our research harnesses state-of-art microscopy technology to investigate tissue microbiology. We are currently using commensal fungi that colonize mammalian mucosa to study the impact of microbe-host interaction on tissue and host homeostasis in commensalism and infection. We are also investigating Listeriology by collaborating Taiwan CDC, WHO collaborating center for *Listeria* at Institut Pasteur in Paris, and multiple Taiwan medical centers. We integrate microbial genomics, clinical information, *in vitro* models and humanized models to understand human listeriosis. You are more than welcome to join us if you are interested in learning and studying infectious diseases.



實驗室成員 Current members (Updated on Sep. 2021)



博士生 (PhD students)

曾國堯 (2019)

顧子奇 (2020, 2018-2020 as a Master student in the lab)

鄭文豪 (2020)

陳瑋璘 (MMP PhD program; 2021, 2019-2021 as a Master student in the lab)

碩士生 (Master students)

張岱玲 (2020)

蘇于庭 (2020)

翁文彥 (2021)

林冠廷 (2021)

陳婷暄 (2021)

大學部 (Undergraduate)

王安妮 (2021)

主持人簡歷 Bibliography of Principal Investigator

Education :

2010-2014

Ph.D, B3MI doctoral school, University Paris 7, France.

(Pasteur-Paris University International doctoral program)

Institut Pasteur, Biology of infection unit, INSERM U1117

2006-2008

M.Sc., Department of Clinical Laboratory Sciences and Medical Biotechnology,
National Taiwan University College of Medicine, Taipei, Taiwan

2002-2006

B.Sc., Department of Clinical Laboratory Sciences and Medical Biotechnology,
National Taiwan University College of Medicine, Taipei, Taiwan

Experience :

2017-present

Postdoctoral research scholar (MOST), Laboratory of Human Immunology and
Infectious Diseases Graduate Institute of Clinical Medical Sciences, Chang-Gung
University, Taoyuan, Taiwan

2015-2017

Postdoctoral fellow, Department of Medical Biotechnology and Laboratory Science,
Chang-Gung University, Taoyuan, Taiwan

2014

07-12

Postdoctoral fellow, Institut Pasteur, Biology of infection unit, INSERM U1117, Paris,
France

2010-2014

PhD student, Institut Pasteur, Biology of infection unit, INSERM U1117, Paris, France

2009-2010

Research assistant, Department of Medical Biotechnology and Laboratory Science,
Chang-Gung University, Taoyuan, Taiwan

主持人過去著作 Publication list (Updated on Sep. 2021)

1. Huang YT, Kuo YW, Lee MR, Tsai YH, Teng LJ, Tsai MS, Liao CH, Hsueh PR. Clinical and molecular epidemiology of human listeriosis in Taiwan. *Int J Infect Dis.* 2021 Jan 28;104:718-724.

2. Guo J, Ning XQ, Ding JY, Zheng YQ, Shi NN, Wu FY, Lin YK, Shih HP, Ting HT, Liang G, Lu XC, Kong JL, Wang K, Lu YB, Fu YJ, Hu R, Li TM, Pan KS, Li XY, Huang CY, Lo YF, Chang IY, Yeh CF, Tu KH, **Tsai YH**, Ku CL, Cao CW. Anti-IFN- γ autoantibodies underlie disseminated *Talaromyces marneffe* infections. **J Exp Med.** 2020 Dec 7;217(12):e20190502.
3. **Tsai YH*** and Chen WL. Host lipid rafts as the gates for *Listeria monocytogenes* infection: a mini-review. **Front Immunol.** 2020 Aug 11;11:1666 ***lead contact**
4. Gu ZQ, Tseng KY, and **Tsai YH***. *Candida* gut commensalism and inflammatory disease. **Medicine in Microecology** 2020 Mar;3:100008 * **lead contact**
5. Chang CJ, Lu CC, Lin CS, Martel J, Ko YF, Ojcius DM, Wu TR, **Tsai YH**, Yeh TS, Lu JJ, Lai HC, and Young JD. *Antrodia cinnamomea* reduces obesity and modulates the gut microbiota in high-fat diet-fed mice. **Int J Obes. (Lond)** 2018 Feb;42(2):231-243
6. Wei CF*, **Tsai YH***, Tsai SH, Lin CS, Chang CJ, Lu CC, Huang HC, Lai HC. Cross-talk between bacterial two-component systems drives stepwise regulation of flagellar biosynthesis in swarming development. **Biochem Biophys Res Commun.** 2017 Jul 15;489(1):70-75 ***co-first author**
7. Lin CS*, **Tsai YH***, Chen CC, Chang WW, Lin YC, Chang CJ, Tseng SF, Wu TR, Lu CC, Horng JT, Martel J, Ojcius DM, Young JD, Lai HC. An iron detection system determines bacterial swarming initiation and biofilm formation. **Sci Rep.** 2016 Nov 15;6:36747 ***co-first author**
8. Maury MM*, **Tsai YH***, Charlier C, Touchon M, Chenal-Francisque V, Leclercq A, Criscuolo A, Gaultier C, Rousse S, Brisabois A, Disson O, Rocha EP, Brisse S, Lecuit M. Uncovering *Listeria monocytogenes* hypervirulence by harnessing its biodiversity. **Nat Genet.** 2016 Mar 48(3)308-13 ***co-first author**
9. Gessain G, **Tsai YH**, Travier L, Bonazzi M, Grayo S, Cossart P, Charlier C, Disson O, Lecuit M. PI3-kinase activation is critical for host barrier permissiveness to *Listeria monocytogenes*. **J Exp Med.** 2015 Feb 9;212(2):165-83.
10. **Tsai YH**, Disson O, Bierne H, Lecuit M. Murinization of internalin extends its receptor repertoire, altering *Listeria monocytogenes* cell tropism and host

responses. **PLoS Pathog** 2013;9(5):e1003381

11. Lai HC, Chang CJ, Yang CH, Hsu YJ, Chen CC, Lin CS, **Tsai YH**, Huang TT, Ojcius DM, Tsai YH, Lu CC. Activation of NK cell cytotoxicity by the natural compound 2,3-butanediol. **J Leukoc Biol.** 2012 Oct;92(4):807-14
12. **Tsai YH**, Wei JR, Lin CS, Chen PH, Huang S, Lin YC, Wei CF, Lu CC, Lai HC. RssAB signaling coordinates early development of surface multicellularity in *Serratia marcescens*. **PLoS ONE** 2011;6(8):e24154
13. Lin CS, Horng JT, Yang CH, **Tsai YH**, Su LH, Wei CF, Chen CC, Hsieh SC, Lu CC, Lai HC. RssAB-FlhDC-ShlBA as a major pathogenesis pathway in *Serratia marcescens*. **Infect Immun.** 2010 Nov;78(11):4870-81
14. Hsieh SC, Lu CC, Horng YT, Soo PC, Chang YL, **Tsai YH**, Lin CS, Lai HC. The bacterial metabolite 2,3-butanediol ameliorates endotoxin-induced acute lung injury in rats. **Microbes Infect.** 2007 Oct;9(12-13):1402-9
15. Soo PC, Horng YT, Lai MJ, Wei JR, Hsieh SC, Chang YL, **Tsai YH**, Lai HC. Pirin regulates pyruvate catabolism by interacting with the pyruvate dehydrogenase E1 subunit and modulating pyruvate dehydrogenase activity. **J Bacteriol.** 2007 Jan;189(1):109-18
16. Wei JR, Soo PC, Horng YT, Hsieh SC, **Tsai YH**, Swift S, Withers H, Williams P, Lai HC. Regulatory roles of *spnT*, a novel gene located within transposon TnTIR. **Biochem Biophys Res Commun.** 2006 Sep 29;348(3):1038-46
17. Wei JR, **Tsai YH**, Horng YT, Soo PC, Hsieh SC, Hsueh PR, Horng JT, Williams P, Lai HC. A mobile quorum-sensing system in *Serratia marcescens*. **J Bacteriol.** 2006 Feb;188(4):1518-25
18. Wei JR, **Tsai YH**, Soo PC, Horng YT, Hsieh SC, Ho SW, Lai HC. Biochemical characterization of RssA-RssB, a two-component signal transduction system regulating swarming behavior in *Serratia marcescens*. **J Bacteriol.** 2005 Aug;187(16):5683-90