

CV Form

Name(中/英文)	蔡幸真 Hsing-Chen Tsai	
Affiliation(s)(中/英文)	國立台灣大學/National Taiwan University	
Current Position Title	Associate Professor, Graduate Institute of Toxicology, College of Medicine	
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個人簡歷 (No more than an A4 size paper)

Education/Training:

M.D. National Taiwan University, Taiwan

M.S. Graduate Institute of Clinical Medicine, National Taiwan University, Taiwan

Ph.D. Johns Hopkins University School of Medicine, USA

Professional and Research Experience:

- 2025-present Joint Appointment Associate Research Fellow, Institute of Biomedical Sciences, Academia Sinica
- 2022-present Associate Professor, Graduate Institute of Toxicology, College of Medicine, National Taiwan University, Taipei, Taiwan
- 2021-present Deputy Director, NTUH Center for Frontier Medicine, National Taiwan University Hospital, Taipei, Taiwan
- 2014-present Attending physician, Division of Chest Medicine, Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan

Awards and Honors:

- 2016 Best oral presentation award, Annual Meeting of Pulmonary Critical Care Medicine, Taiwan Society of Pulmonary and Critical Care Medicine
- 2017 Young Investigator Outstanding Research Award, National Taiwan University Hospital (臺大醫院傑出研究獎)
- 2020 The ITRI 2020 Janssen-Taiwan Research Grant Awardee
- 2021 The 18th National Innovation Award (國家新創獎)
- 2022 The Ming Chai Medical and Education Foundation Interdisciplinary Research Award
- 2024 Fellow of the Asian Pacific Society of Respiriology (亞太呼吸學會會士)

Selected Publications:

- Wu YC, Yang SF, Lee YT, Chou MW, Lin SY, Wang YC, Su SY, Hsu CL, Chang NW, Huang YJ, Juan YH, Lu HH, Chen CY, Wang YF, Lee PJ, Kao HJ, Wu PS, Lin MH, Hsu LC, Chiu YL, Chen SY, Yu CJ, **Tsai HC***. (2026) Epigenetic reprogramming of T cell metabolism restores function and enhances anti-tumor immunity in lung cancer. *Nat. Immunol.* **27**, 1268 (*Corresponding Author)
- Chen HY, Hsieh WC, Liu YC, Li HY, Liu PY, Hsu YT, Hsu SC, Luo AC, Kuo WC, Huang YJ, Liou GG, Lin MY, Ko CJ, **Tsai HC**, Chang SJ. (2024) Mitochondrial injury induced by a *Salmonella* genotoxin triggers the proinflammatory senescence-associated secretory phenotype. *Nat Commun* **15**, 2778
- Tien FM, Lu HH, Lin SY and **Tsai HC***. (2023) Epigenetic remodeling of the immune landscape in cancer: therapeutic hurdles and opportunities. *J Biomed Sci.* 2023 Jan 10;30(1):3 (*Corresponding Author)
- Hsieh WC, Lai EY, Liu YT, Wang YF, Tzeng YS, Lu C, Lai YJ, Huang HC, Huang JH, Ni HC, Tsai DY, Liang JJ, Liao CC, Lu YT, Jiang L, Liu MT, Wang JT, Chang SY, Chen CY, **Tsai HC**, Chang YM, Wernig G, Li CW, Lin KI, Lin YL, Tsai HK, Huang YT, and Chen SY. (2021) NK cell receptor and ligand composition influences the clearance of SARS-CoV-2. *J Clin Invest.* 131(21):e146408.
- Weng RH Roc, Lu HH, Lin CT, Fan CC, Lin RS, Huang TC, Lin SY, Huang YJ, Juan YH, Wu YC, Hung ZC, Liu C, Lin XH, Hsieh WC, Chiu TY, Liao JC, Chiu YL, Chen SY, Yu CJ, and **Tsai HC***. (2021) Epigenetic modulation of immune synaptic-cytoskeletal networks potentiates $\gamma\delta$ T cell-mediated cytotoxicity in lung cancer. *Nat Commun.* 12(1): 2163 (*Corresponding Author)

6. Lu HH, Lin SY, Weng RH Roc, Juan YH, Chen YW, Hou HH, Hung ZC, Oswita GA, Huang YJ, Shih JY, Yu CJ, and **Tsai HC***.(2020) Fucosyltransferase 4 shapes oncogenic glycoproteome to drive metastasis of lung adenocarcinoma. *EBioMedicine* 57: 102846 (***Corresponding Author**)
7. Cai Y*, **Tsai HC***, Yen R-Y, Xia L, Zhang Y, Wang W, Baylin SB.(2017) Critical threshold levels of DNA methyltransferase 1 are required to maintain DNA methylation across the genome in human cancer cells. *Genome Res.* 27:533-544 (***Contributed equally**) (**First Author**)
8. Yi JM*, **Tsai HC***, Glöckner SC, Lin S, Ohm JE, Easwaran H, James CD, Costello JF, Riggins G, Eberhart CG, Laterra J, Vescovi AL, Ahuja N, Herman JG, Schuebel KE, Baylin SB (2008) Abnormal DNA Methylation of CD133 in Colorectal and Glioblastoma Tumors. *Cancer Res* 68(19): 8094-103 (***Contributed equally**) (**First Author**)
9. Easwaran H, **Tsai HC**, Baylin SB. (2014) Cancer epigenetics: tumor heterogeneity, plasticity of stem-like states, and drug resistance. *Mol Cell.* 54(5):716-27.
10. **Tsai HC***, Li H, Van Neste L, Cai Y, Robert C, Rassool FV, Shin JJ, Harbom KM, Beaty R, Pappou E, Harris J, Yen RW, Ahuja N, Brock M, Stearns V, Feller-Kopman D, Yarmus LB, Lin YC, Welm AL, Issa JP, Minn I, Matsui W, Jang YY, Sharkis SJ, Baylin SB, Zahnow CA. (2012) Transient Low Doses of DNA Demethylating Agents Exert Durable Anti-tumor Effects on Hematological and Epithelial Tumor Cells. *Cancer Cell.* 21(3):430-46. (**First Author**)
11. **Tsai HC***, Baylin SB (2011) Cancer epigenetics: linking basic biology to clinical medicine. *Cell Res.* 21(3):502-17 (**First Author**)