



Chiu, Chun-Lung

Assistant Professor

Areas of Expertise: Cancer Biology, Molecularly Targeted Cancer Therapy, Chronic Kidney Disease, Animal Models of Disease, Physiology, and Genetics

Courses Taught:

Undergraduate Courses: Veterinary Physiology, Animal Genetics, Clinical Case Discussions

Graduate Courses: Genetic Engineering Techniques, Advanced Topics in Laboratory Animal Science

Tel: 04-22840368 ext95

e-mail: chuchiu@nchu.edu.tw

Brief Academic and Professional Background and Major Honors

Education

Ph.D. in Integrative Pathobiology, University of California, Davis, USA

M.S. in Veterinary Medicine, National Chung Hsing University, Taiwan

D.V.M., National Chung Hsing University, Taiwan

Professional Experience

Assistant Professor, Department of Veterinary Medicine, NCHU	2026.08-current
Assistant Professor, Department of Veterinary Medicine, NPUST	2025.08-2026.07
Principal Investigator, U.S. Department of Defense Cancer Research Program	2022.07-2025.07
Postdoctoral Scholar, Stanford University, USA	2021.03-2025.07
Postdoctoral Scholar, University of California, Davis, USA	2018.08-2021.01

Honors and Awards

Postdoctoral and Clinical Fellowship Award, U.S. Department of Defense, 2022-2025

Outstanding Internal Medicine Professional Research Award, UC Davis, 2018

First Place Award, 11th Annual Spotlight on Junior Investigators Cancer Research Symposium, 2017

Graduate Fellowship, Integrative Pathobiology Graduate Group, UC Davis, 2015

Graduate Student Travel Award, UC Davis, 2015

Outstanding Poster Award, 6th Annual Lung Research Symposium, UC Davis, 2015

Scholarship Award, American Thoracic Society 2015 International Conference, 2015

Graduate Research Grant (Graduate Fellowship), UC Davis, School of Veterinary Medicine, 2014, 2016

Graduate Fellowship, Comparative Pathology Graduate Group, UC Davis, 2013

Government Scholarship for Overseas Study, Ministry of Education, Taiwan, 2012-2015

Research Interests

My research focuses on cancer biology, molecularly targeted cancer therapy, and chronic kidney disease. By integrating molecular biology with multi-omics approaches, we investigate the roles of key oncogenic molecules and signaling pathways in tumor growth, metastasis, and therapeutic resistance, with the goal of identifying promising diagnostic biomarkers and therapeutic targets. We develop and utilize a variety of animal models of disease, including patient-derived xenograft models and genetically engineered models, for the preclinical evaluation of anticancer drugs and immunotherapies. We will continue to advance comparative oncology, develop precision diagnostic platforms and intelligent, innovative therapeutic strategies, and collaborate with medical, veterinary, and industry partners in Taiwan and abroad. These efforts aim to accelerate the translation of research findings into clinical applications, improve cancer treatment outcomes, and promote the health and welfare of both humans and animals.

Recent Publications

1. **Chiu CL***, Zhang D*, Zhao H, Wei Y, Polasko AL, Thomsen MT, Yang V, Yang KK, Hauck S, Peterson EE, Wen RM, Qiu Z, Corey E, Miao YR, Rankin EB, Peehl DM, Huang J, Giaccia AJ, Brooks JD. Targeting AXL inhibits the growth and metastasis of prostate cancer in bone. *Clin Cancer Res*. 2025 Apr 1;31(7):1346-1358. (SCI Impact factor: 10.9, 2025; Oncology 33/333, 9.91%).
2. Zhang D*, **Chiu CL***, Garcia Marques FJ, Bermudez A, Hoerner CR, Hadi N, Wang E, Metzner TJ, Trabanino L, Leppert JT, Zhao H, Tibshirani R, Fan AC, Pitteri SJ, Brooks JD. Identification of serum protein biomarkers for clear cell renal cell carcinoma using patient-derived xenografts. *J Clin Invest*. 2025 Nov 4;136(1):e193567. (SCI Impact factor: 14.3, 2025; Medicine, Research & Experimental 10/191, 5.24%).
3. Zhang D*, **Chiu CL***, Wen RM, Qiu Z, Garcia-Marques FJ, Bermudez A, Zhao M, Zhao H, Dixon SJ, Peehl Dm, Rankin EB, Pitteri SJ, Brooks JD. FTO inhibition attenuates renal fibrosis by downregulating ferroptosis activator ACSL4 and profibrotic factor TGFBI. *iScience*. 2025 Sep 7;28(10):113515. (SCI Impact factor: 4.5, 2025; Multidisciplinary Sciences 24/140, 17.14%).
4. **Chiu CL***, Li CG*, Verschuere E, Wen RM, Zhang D, Gordon CA, Zhao H, Giaccia AJ, Brooks JD. NUSAP1 binds ILF2 to modulate R-loop-dependent DNA damage in prostate cancer. *Int J Mol Sci*. 2023 Mar 26;24(7):6258. (SCI Impact factor: 5.6, 2025; Biochemistry & Molecular Biology 72/328, 21.95%).
5. **Chiu CL**, Zhao H, Chen CH, Wu R, Brooks JD. The role of MARCKS in metastasis and treatment resistance of solid tumors. *Cancers (Basel)*. 2022 Oct 8;14(19):4925. (SCI Impact factor: 4.8, 2025; Oncology 92/333, 27.63%).
6. **Chiu CL***, Hong SY*, Tan Y, Lee YJ, Shih YP, Tepper CG, Lo SH. C-terminal tensin-like (CTEN) knockin alleviates cystic kidney defects in Tensin-1 knockout mice. *Genes Dis*. 2022 Jun 17;10(3):643-646. (SCI Impact factor: 14.6, 2025; Genetics & Heredity 4/192, 2.08%).
7. Wu ZY*, **Chiu CL***, Lo Ethan, Lee Julie YR, Yamada Soichiro, and Lo SH. Hyperactivity of Mek in TNS1 knockouts leads to potential treatments for cystic kidney diseases. *Cell Death Dis*. 2019 Nov 18;10(12):871. (SCI Impact factor: 12.2, 2025; Cell Biology 27/207, 13.04%).
8. Thomsen MT, Busk M, Zhang D, **Chiu CL**, Zhao H, Garcia-Marques FJ, Bermudez A, Pitteri SJ, Borre M, Brooks JD, Nyengaard JR. The olfactory receptor OR51E2 regulates prostate cancer aggressiveness through STAT3 modulation in a prostate cancer cell line and in xenograft tumors. *BMC Cancer*. 2025 Mar 24;25(1):535. (SCI Impact factor: 4.1, 2025; Oncology 111/333, 33.33%).
9. Polasko AL, Zhang D, Ramraj A, **Chiu CL**, Garcia-Marques FJ, Bermudez A, Kapp K, Peterson E, Qiu Z, Pollack AS, Zhao H, Pollack JR, Pitteri SJ, Brooks JD. Establishing and Characterizing the Molecular Profiles, Cellular Features, and Clinical Utility of a Patient-Derived Xenograft Model Using Benign Prostatic Tissues. *Lab Invest*. 2024 Oct;104(10):102129. (SCI Impact factor: 4.1, 2025; Pathology 13/89, 14.61%).
10. Lee CC, Chen CH, Kenyon NJ, Wang CN, Tsai HC, **Chiu CL**, Chen Y, Forteza RM, Wu R. Inhibition of MARCKS phosphorylation attenuates of dendritic cell migration in a murine model of acute asthma. *Eur J Pharmacol*. 2024 Oct 5;980:176867. (SCI Impact factor: 5.7, 2025; Pharmacology & Pharmacy 52/356, 14.61%).
11. Wen RM, Qiu Z, Marti GEW, Peterson EE, Marques FJG, Bermudez A, Wei Y, Nolley R, Lam N, Polasko AL, **Chiu CL**, Zhang D, Cho S, Karageorgos GM, McDonough E, Chadwick C, Ginty F, Jung KJ, Machiraju R, Mallick P, Crowley L, Pollack JR, Zhao H, Pitteri SJ, Brooks JD. AZGP1 deficiency

- promotes angiogenesis in prostate cancer. *J Transl Med*. 2024 Apr 24;22(1):383. (SCI Impact factor: 9.7, 2025; Medicine, Research & Experimental 20/191, 10.47%).
12. Wen R, Zhao H, Zhang D, **Chiu CL**, Brooks JD. Sialylated glycoproteins as biomarkers and drivers of progression in prostate cancer. *Carbohydr Res*. 2022 Sep;519:108598. (SCI Impact factor: 3.4, 2025; Chemistry, Applied 31/77, 40.26%).
 13. Lee CC, Lee YL, Wang CN, Tsai HC, **Chiu CL**, Liu LF, Lin HY, Wu R. Polygonum multiflorum decreases airway allergic symptoms in a murine model of asthma. *Am J Chin Med*. 2016;44(1):133- 47. (SCI Impact factor: 7.8, 2025; Integrative & Complementary Medicine 2/48, 4.17%).
 14. Chen CH, Statt S, **Chiu CL**, Thai P, Arif M, Adler KB, and Wu R. Targeting myristoylated alanine- rich C kinase substrate phosphorylation site domain in lung cancer: Mechanisms and therapeutic implications. *Am J Respir Crit Care Med*. 2014 Nov 15;190(10):1127-38. (SCI Impact factor: 21.7, 2025; Respiratory System 4/107, 3.74%).
 15. Chen CH, **Chiu CL**, Alder KB, and Wu R. A novel predictor of cancer malignancy and potential therapeutic target: Up-regulation of MARCKS phosphorylation in lung cancer. *Am J Respir Crit Care Med*. 2014 Apr 15;189(8):1002-4. (SCI Impact factor: 21.7, 2025; Respiratory System 4/107, 3.74%).
 16. Chang GR, Yang CC, Hsu SH, Lin C, **Chiu CL**, Chan FT and Mao FC. Fecal reproductive steroid profiles for monitoring reproductive patterns in female Formosan black bears (*Ursus thibetanus formosanus*). *Ann. Zool. Fennici* 2011: 48: 275-286. (SCI Impact factor: 0.4, 2025; Ecology 196/205, 95.61%).
- (* equal contribution)

Updated: 2026/08/01