

Chan Yau Tuen

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SKILLS

Experienced researcher in the medical and pharmacological field with 7 years of experience. Skilled in various experimental setups and data analysis, including animal models, flow cytometry, immunofluorescent imaging, and molecular biology experiments. Experienced in research article writing, grant applications, and proposal preparation. Participated in multiple research projects, including basic science, translational research, and clinical studies.

EDUCATION

Doctor of Philosophy, Pharmacology, 2020-2024

School of Chinese Medicine, The University of Hong Kong

Supervisor: Dr Wang Ning & Prof. Feng Yibin

Master of Science in Biomedical Science, 2016-2018

Edinburgh Napier University

Bachelor of Science, Molecular Biology & Biotechnology and Biochemistry, 2012-2016

Faculty of Science, The University of Hong Kong

WORKING EXPERIENCE

Postdoctoral Fellow, School of Chinese Medicine, The University of Hong Kong | 2024-present

Perform and lead research projects, manage research team matters, write protocols, draft proposals, purchase equipment and reagents

Research Assistant, School of Chinese Medicine, The University of Hong Kong | 2017-2020

Animal model, experiment, imaging and surgery; Cell culture; Involved in cancer research projects (lung, liver, colon).

Laboratory Technician, Tech Dragon Limited, Hong Kong | 2016-2017

Perform sequencing reaction, PCR cleanup, Bigdye PCR, Data analysis and delivery, routine lab maintenance, R&D

AWARDS AND SCHOLARSHIP

1. YS and Christabel Lung Postgraduate Scholarship, HKU, 2024
2. YS and Christabel Lung Postgraduate Scholarship, HKU, 2023
3. Outstanding Oral Presentation Award, The 11th Biennial Meeting of the Society for Free Radical Research-Asia and the Chinese National Conference of Redox Biology and Medicine, 2024
4. First Prize for Poster Presentation, Research Postgraduate Student Forum, The 12th Pong Ding Yuen International Symposium on Chinese Medicine, 2023
5. Outstanding Oral Presentation Award, The 19th International Postgraduate Symposium on Chinese Medicine, 2023
6. Li Shizhen Youth Outstanding Thesis Award, The 18th International Postgraduate Symposium on Chinese Medicine, 2022

ACADEMIC AND PROFESSIONAL MEMBERSHIP

- 2022 – Modernized Chinese Medicine International Association
- 2024 – European Association for Cancer Research
- 2024 – Biophysical Society of China

QUALIFICATIONS

- Standard First-aid Certificate, Hong Kong Red Cross, 2010
- Mental Health First Aid, The Mental Health Association of Hong Kong, 2023

LANGUAGES

Cantonese – Native

English – Fluent

Mandarin – Fluent

RESEARCH EXPERIENCE

First author in research in the field of cancer biology, in related to the molecular biology of drug resistance, and immune microenvironment. Draft research articles and reports based on results. Presented results in international conferences.

Leading role in research in metabolic diseases, related to acupuncture treatment for obesity. Draft research articles and reports based on results.

Participated in pharmacological research including drug efficacy, herbal drug qualification, and processing techniques.

Part of the clinical research team and Investigational New Drug application.

Contributed to research projects funded by the Research Grants Council (GRF), Health Bureau (HMRF), National Natural Science Foundation of China (NSFC), Innovation and Technology Commission (ITF), and Chinese Medicine Development Fund (CMDf).

Trained junior postgraduates and undergraduate students in research and experimental techniques.

PUBLICATIONS (First-author)

1. **Chan, Y. T.**, Zhang, C., Wu, J., Lu, P., Xu, L., Yuan, H., Feng, Y., Chen, Z. S., & Wang, N. (2024). Biomarkers for diagnosis and therapeutic options in hepatocellular carcinoma. *Molecular cancer*, 23(1), 189.
2. **Chan, Y. T.**, Wu, J., Lu, Y., Li, Q., Feng, Z., Xu, L., Yuan, H., Xing, T., Zhang, C., Tan, H. Y., Feng, Y., & Wang, N. (2024). Loss of lncRNA LINC01056 leads to sorafenib resistance in HCC. *Molecular cancer*, 23(1), 74.
3. **Chan, Y. T.**, Tan, H. Y., Lu, Y., Zhang, C., Cheng, C. S., Wu, J., Wang, N., & Feng, Y. (2023). Pancreatic melatonin enhances anti-tumor immunity in pancreatic adenocarcinoma through regulating tumor-associated neutrophils infiltration and NETosis. *Acta pharmaceutica Sinica. B*, 13(4), 1554–1567.
4. **Chan, Y. T.**, Lu, Y., Wu, J., Zhang, C., Tan, H. Y., Bian, Z. X., Wang, N., & Feng, Y. (2022). CRISPR-Cas9 library screening approach for anti-cancer drug discovery: overview and perspectives. *Theranostics*, 12(7), 3329–3344.
5. **Chan, Y. T.**, Wang, N., Tam, C. W., Tan, H. Y., Lu, Y., So, T. H., Chau-Leung Yu, E., Lao, L., & Feng, Y. (2021). Systematic Review with Meta-Analysis: Effectiveness and Safety of Acupuncture as Adjuvant Therapy for Side Effects Management in Drug Therapy-Receiving Breast Cancer Patients. *Evidence-based complementary and alternative medicine : eCAM*, 2021, 9949777.
6. **Chan, Y. T.**, Cheung, F., Zhang, C., Fu, B., Tan, H. Y., Norimoto, H., Wang, N., & Feng, Y. (2020). Ancient Chinese Medicine Herbal Formula Huanglian Jiedu Decoction as a Neoadjuvant Treatment of Chemotherapy by Improving Diarrhea and Tumor Response. *Frontiers in pharmacology*, 11, 252.
7. **Chan, Y. T.**, Wang, N., & Feng, Y. (2021). The toxicology and detoxification of Aconitum: traditional and modern views. *Chinese medicine*, 16(1), 61.
8. **Chan, Y. T.**, Wang, N., Tan, H. Y., Li, S., & Feng, Y. (2020). Targeting Hepatic Stellate Cells for the Treatment of Liver Fibrosis by Natural Products: Is It the Dawning of a New Era?. *Frontiers in pharmacology*, 11, 548.

PUBLICATIONS (Co-author)

1. Lyu, Z.*, **Chan, Y. T.*** (Co-first author), Lu, Y., Fung Lam, T., Wu, X., Wu, J., Xu, L., Yang, W., Zhang, C., Lidan Zhong, L., & Wang, N. (2024). Osteoprotegerin mediates adipogenesis in obesity. *Journal of advanced research*, 62, 245–255.
2. Feng, Z., **Chan, Y. T.**, Lu, Y., Wu, J., Xing, T., Yuan, H., Feng, Y., & Wang, N. (2024). Siwu decoction suppress myeloid-derived suppressor cells through tumour cells necroptosis to inhibit hepatocellular carcinoma. *Phytomedicine : international journal of phytotherapy and phytopharmacology*, 133, 155913.
3. Wu, J., Tang, G., Cheng, C. S., Yeerken, R., **Chan, Y. T.**, Fu, Z., Zheng, Y. C., Feng, Y., & Wang, N. (2024). Traditional Chinese medicine for the treatment of cancers of hepatobiliary system: from clinical evidence to drug discovery. *Molecular cancer*, 23(1), 218.
4. Wu, J., Tan, H. Y., **Chan, Y. T.**, Lu, Y., Feng, Z., Yuan, H., Zhang, C., Feng, Y., & Wang, N. (2024). PARD3 drives tumorigenesis through activating Sonic Hedgehog signalling in tumour-initiating cells in liver cancer. *Journal of experimental & clinical cancer research : CR*, 43(1), 42.
5. Wu, J., **Chan, Y. T.**, Lu, Y., Feng, Z., Yuan, H., Xu, X., Xu, L., Zhang, C., Feng, Y., Tan, H. Y., & Wang, N. (2023). Genipin-activating PPAR γ impedes CCR2-mediated macrophage infiltration into postoperative liver to suppress recurrence of hepatocellular carcinoma. *International journal of biological sciences*, 19(16), 5257–5274.
6. Lu, Y., **Chan, Y. T.**, Wu, J., Feng, Z., Yuan, H., Li, Q., Xing, T., Xu, L., Zhang, C., Tan, H. Y., Lee, T. K., Feng, Y., & Wang, N. (2023). CRISPR/Cas9 screens unravel miR-3689a-3p regulating sorafenib resistance in hepatocellular carcinoma via suppressing CCS/SOD1-dependent mitochondrial oxidative stress. *Drug resistance updates : reviews and commentaries in antimicrobial and anticancer chemotherapy*, 71, 101015.
7. Chen, G., Wang, N., Yang, R., Wu, Y., Liu, J., Huang, Z., Zhang, Z., Huang, Y., Zhang, C., **Chan, Y. T.**, & Feng, Y. (2023). Efficacy and safety of herbal medicines intervention for cachexia associated with cancer: A systematic review and meta-analysis. *Phytotherapy research : PTR*, 37(11), 5243–5278.
8. Chen, G., Luo, D., Qi, X., Li, D., Zheng, J., Luo, Y., Zhang, C., Ren, Q., Lu, Y., **Chan, Y. T.**, Chen, B., Wu, J., Wang, N., & Feng, Y. (2023). Characterization of cuproptosis in gastric cancer and relationship with clinical and drug reactions. *Frontiers in cell and developmental biology*, 11, 1172895.
9. Wu, J., **Chan, Y. T.**, Lu, Y., Wang, N., & Feng, Y. (2023). The tumor microenvironment in the postsurgical liver: Mechanisms and potential targets of postoperative recurrence in human hepatocellular carcinoma. *Medicinal research reviews*, 43(6), 1946–1973.
10. Chen, F., Zhong, Z., Zhang, C., Lu, Y., **Chan, Y. T.**, Wang, N., Zhao, D., & Feng, Y. (2022). Potential Focal Adhesion Kinase Inhibitors in Management of Cancer: Therapeutic Opportunities from Herbal Medicine. *International journal of molecular sciences*, 23(21), 13334.
11. Lu, Y., Liu, Y., Lan, J., **Chan, Y. T.**, Feng, Z., Huang, L., Wang, N., Pan, W., & Feng, Y. (2023). Thioredoxin-interacting protein-activated intracellular potassium deprivation mediates the anti-tumour effect of a novel histone acetylation inhibitor HL23, a fangchinoline derivative, in human hepatocellular carcinoma. *Journal of advanced research*, 51, 181–196.
12. Chen, F., Zhong, Z., Zhang, C., Lu, Y., **Chan, Y. T.**, Wang, N., Zhao, D., & Feng, Y. (2022). Potential Focal Adhesion Kinase Inhibitors in Management of Cancer: Therapeutic Opportunities from Herbal Medicine. *International journal of molecular sciences*, 23(21), 13334.
13. Chen, G., Luo, D., Zhong, N., Li, D., Zheng, J., Liao, H., Li, Z., Lin, X., Chen, Q., Zhang, C., Lu, Y., **Chan, Y. T.**, Ren, Q., Wang, N., & Feng, Y. (2022). GPC2 Is a Potential Diagnostic, Immunological, and Prognostic Biomarker in Pan-Cancer. *Frontiers in immunology*, 13, 857308.
14. Lu, Y., **Chan, Y. T.**, Tan, H. Y., Zhang, C., Guo, W., Xu, Y., Sharma, R., Chen, Z. S., Zheng, Y. C., Wang, N., & Feng, Y. (2022). Epigenetic regulation of ferroptosis via ETS1/miR-23a-3p/ACSL4 axis mediates sorafenib resistance in human hepatocellular carcinoma. *Journal of experimental & clinical cancer research : CR*, 41(1), 3.
15. Yuan, H., Lu, Y., **Chan, Y. T.**, Zhang, C., Wang, N., & Feng, Y. (2021). The Role of Protein SUMOylation in Human Hepatocellular Carcinoma: A Potential Target of New Drug Discovery and Development. *Cancers*, 13(22), 5700.

16. Wang, N., Tan, H. Y., Lu, Y., **Chan, Y. T.**, Wang, D., Guo, W., Xu, Y., Zhang, C., Chen, F., Tang, G., & Feng, Y. (2021). PIWIL1 governs the crosstalk of cancer cell metabolism and immunosuppressive microenvironment in hepatocellular carcinoma. *Signal transduction and targeted therapy*, 6(1), 86.
17. Tan, H. Y., Wang, N., Zhang, C., **Chan, Y. T.**, Yuen, M. F., & Feng, Y. (2021). Lysyl Oxidase-Like 4 Fosters an Immunosuppressive Microenvironment During Hepatocarcinogenesis. *Hepatology (Baltimore, Md.)*, 73(6), 2326–2341.
18. Qu, Y., Tan, H. Y., **Chan, Y. T.**, Jiang, H., Wang, N., & Wang, D. (2020). The functional role of long noncoding RNA in resistance to anticancer treatment. *Therapeutic advances in medical oncology*, 12, 1758835920927850.
19. Lu, Y., **Chan, Y. T.**, Tan, H. Y., Li, S., Wang, N., & Feng, Y. (2020). Epigenetic regulation in human cancer: the potential role of epi-drug in cancer therapy. *Molecular cancer*, 19(1), 79.
20. Tan, H. Y., Wang, N., **Chan, Y. T.**, Zhang, C., Guo, W., Chen, F., Zhong, Z., Li, S., & Feng, Y. (2020). ID1 overexpression increases gefitinib sensitivity in non-small cell lung cancer by activating RIP3/MLKL-dependent necroptosis. *Cancer letters*, 475, 109–118.
21. Tan, H. Y., Ho, V. W., **Chan, Y. T.**, Zhang, C., Wang, N., Xia, W., & Feng, Y. (2020). Combination of *Gentiana rhodantha* and *Gerbera anandria* in the BL02 formula as therapeutics to non-small cell lung carcinoma acting via Rap1/cdc42 signaling: A transcriptomics/ bio-informatics biological validation approach. *Pharmacological research*, 155, 104415.
22. Jiang, X., Tan, H. Y., Teng, S., **Chan, Y. T.**, Wang, D., & Wang, N. (2019). The Role of AMP-Activated Protein Kinase as a Potential Target of Treatment of Hepatocellular Carcinoma. *Cancers*, 11(5), 647.

CONFERENCE ABSTRACTS

1. **Chan, Y. T.**, Lu, Y., Wang, N.: Role of miR-3689a-3p in the regulation of mitochondrial oxidative stress in the sorafenib resistance of hepatocellular carcinoma. The 11th Biennial Meeting of the Society for Free Radical Research-Asia and the Chinese National Conference of Redox Biology and Medicine, 21-23 October, 2024 (Oral Presentation)
2. **Chan, Y. T.**, Feng, Y., Wang, N.: Melatonin Suppresses Pancreatic Adenocarcinoma by Regulation of Tumour-associated Neutrophil Infiltration and Neutrophil Extracellular Trap Formation. European Association for Cancer Research 2024 Congress, Rotterdam, Netherlands, 10-13 June 2024. (Poster Presentation)
3. **Chan, Y. T.**, Feng, Y., Wang, N.: Role of LINC01056 in sorafenib resistance through modulation of fatty acid Oxidation in hepatocellular carcinoma. The 28th Research Postgraduate Symposium, HKUMED, Hong Kong, 29-30 November 2023. (Oral Presentation)
4. **Chan, Y. T.**, Wang, N., Feng, Y.: Natural supplement melatonin suppresses pancreatic adenocarcinoma by regulating tumor-associated neutrophil infiltration and neutrophil extracellular trap formation. The 12th Pong Ding Yuan International Symposium on Chinese Medicine, Hong Kong, 25-26 November 2023. (Poster Presentation)
5. **Chan, Y. T.**, Wang, N., Feng, Y.: Melatonin induced anti-tumor neutrophils infiltration and neutrophil extracellular traps formation in pancreatic adenocarcinoma. The 19th Consortium for Globalization of Chinese Medicine, Chengdu, China, 22-24 August 2023. (Oral Presentation)
6. **Chan, Y. T.**, Wang, N., Feng, Y.: Melatonin modulates Anti-tumor Immunity via Tumor-associated Neutrophils and Extracellular Traps Formation in Pancreatic Adenocarcinoma. The 19th International Postgraduate Symposium on Chinese Medicine, Hong Kong, 18 August 2023. (Oral Presentation)
7. **Chan, Y. T.**, Wang, N., Feng, Y.: Ancient Chinese Medicine Herbal Formula Huanglian Jiedu Decoction as a Neoadjuvant Treatment of Chemotherapy by Improving Diarrhea and Tumor Response. In 17th International Postgraduate Symposium on Chinese Medicine, Hong Kong, 13 August 2021. (Poster Presentation)
8. **Chan, Y. T.**, Feng, Y.: Active flavones from *Scutellaria baicalensis*: the anti-cancer mechanisms, properties and therapeutic applications. In 10th Pong Ding Yuan International Symposium on Traditional Chinese Medicine, 1-3 December 2017. (Poster Presentation)