

CV Form

Name(中/英文)	郭靜娟 Ching-Chuan Kuo	照片(頭像照) 可另夾帶檔案 提供
Affiliation(s)(中/英文)	國家衛生研究院生技與藥物研究所 Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes	
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個人簡歷 (No more than an A4 size paper)

Education/Training:

1995/09 ~ 2001/07. Ph.D., Institute of Food Science and Technology, College of Bioresources and Agriculture, National Taiwan University, Taipei, Taiwan

Professional and Research Experience:

2022/01 ~ present. 國家衛生研究院生技與藥物研究所研究員/Investigator. Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Zhunan, Taiwan

2022/08 ~ present. 國立中興大學生物科技發展中心組織工程與再生醫學博士學位學程教授 (合聘)/Professor (Jointly Appointed). Doctoral Program in Tissue Engineering and Regenerative Medicine, Biotechnology Center, National Chung Hsing University, Taichung, Taiwan

2013/03 ~ 2021/12. 國家衛生研究院生技與藥物研究所副研究員/ Associate Investigator. Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Zhunan, Taiwan

2012/07 ~ 2013/02. 國家衛生研究院癌症研究所副研究員/Associate Investigator. National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan

2007/10 ~ 2012/06. 國家衛生研究院癌症研究所助研究員/Assistant Investigator. National Institute of Cancer Research, National Health Research Institutes, Tainan, Taiwan

Dr. Ching-Chuan Kuo (郭靜娟) received her Ph.D. in the field of natural product chemistry and nutraceutical functionality from National Taiwan University. Following her Ph.D., Dr. Kuo joined the National Health Research Institutes (NHRI) as a Postdoctoral Fellow. Dr. Kuo began her career at NHRI in October 2007 as an Assistant Investigator at the National Institute of Cancer Research (NICR). She was promoted to Associate Investigator in July 2012, then transferred to the Institute of Biotechnology and Pharmaceutical Research (IBPR) in March 2013, and advanced to Investigator in January 2022. Dr. Kuo's research interests focus on cancer biology, cancer experimental therapeutics, clinically relevant model establishment, translational medicine, and precision therapeutics. Her research topics can be divided into four areas: (1) Establishment of novel patient-derived xenograft (PDX) models and PDX derived alternative testing models for drug R&D; (2) Oncotarget identification and validation ; (3) Discovery of novel therapeutic agents and combination strategies; and (4) investigation of new chemoresistance mechanisms and discovery of reversal strategies.

To date, Dr. Kuo has published 115 SCI articles, amassing a total of 5,500 citations, with an H-index of 45 and an i10-index of 90. She holds two patents, with several additional patent applications currently pending. Remarkably, she has played a pivotal role in the development of four cancer treatment drug candidates—DBPR104, DBPR112, DBPR114, and DBPR216—leading to their successful approval for Investigational New Drug (IND) applications by both the U.S. FDA and Taiwan FDA. Among them, DBPR104, a vascular disrupting agent, has completed a Phase II clinical trial in Taiwan. The other three candidates—DBPR112 (an ErbB inhibitor), DBPR114, and DBPR216 (both multikinase inhibitors)—are currently undergoing Phase I or Phase I/II clinical trials.

Awards and Honors:

2025/12. National Innovation Award (2025 國家新創獎)(Co-Recipient)

2024/09. Taipei Biotech Awards – Technology Transfer Collaboration Gold Award (2024 台北生技獎技轉合作金獎)(Co-Recipient)

2022/12. National Innovation Advancement Award (2022 國家新創精進獎)(Co-Recipient)

2019/10. NBRP BIOMED START-UP CHALLENGE) (2019 國際生醫加速器合作計畫第二名)(Co-Recipient)

2018/12. Future Tech Breakthrough Award of the Ministry of Science and Technology (2018 科技部未來科技突破獎)(Co-Recipient)

2013/12. National Innovation Award. Taipei, Taiwan (2013 國家新創獎)(Co-Recipient)

2012/06. Merit Award. 10th International Conference of the Asia Clinical Oncology Society, Seoul, Korea

Selected Publications:

Dr. Ching-Chuan Kuo has authored more than 115 SCI-indexed publications in the fields of cancer therapeutics, drug discovery, molecular pharmacology, and translational oncology. Her publications have received over 5,600 citations, with an h-index of 46 according to Google Scholar. Google Scholar Profile:

https://scholar.google.com/scholar?hl=zh-TW&as_sdt=0%2C5&q=Ching-Chuan+Kuo.

Corresponding Author Publications During the Past Five Years:

1. Zhuang, S.-H., Chang, Y.-H., Huynh, H.-T., Hung, H.-Y., Huang, Z.-T., Juang, S.-H., Kuo, S.-C., **Kuo, C.-C.***, Hsieh, M.-T.* Identification and Biological Evaluation of (4H-Thieno[3,2-b]indol-3-yl)methanol as a Tumoricidal Scaffold for an Antineoplastic Agent. *Chemical Biology & Drug Design* 2025 Dec;106(6):e70233. (SCI) Category: Biochemistry & Molecular Biology; Impact factor: 3.3; Ranking: 148/321, 46.1%, 2024 JCR) (***Corresponding author**)
2. Pao, Y.-S., Liao, K.-J., Shiau, Y.-C., Chao, M.-H., Li, M.-C., Lin, L.-M., Chang, H.-H., Yeh, H.-W., Chen, Y.-J., Chiu, Y.-T., Pan M. Y., Chang, Y.-H., Shen, S.-Y., Lin, S.-Y., Cheng, H.-C., Lin, Y.-C., Sun, Y.-J.* **Kuo, C.-C.***, Hsieh, H.-P.* Wang, L. H.* KIF2C mediates paclitaxel resistance by depolymerizing polyglutamylated microtubules. *Developmental Cell* 2025 Aug; 60(15): 2097-2113.e8 (SCI) Category: Developmental Biology; Impact factor: 8.7; Ranking: 2/39, 5.1%, 2024 JCR) (***Corresponding author**) *This article is highlighted as the cover story in volume 60 issue 15 of Developmental Cell.*
3. Tang, Y.-C., Ou, J.-J. Hsu, S.-C., Huang, C.-H., Lin, L.-M., Chang, H.-H., Wang, Y.-H., Huang, Z.-T., Sun, M., Liu, K.-J., Hung, Y.-M., Lai, C.-Y., Shih, C., Chen, C.-T., Chang, J.-Y., Hsieh, H.-P., Jiaang, W.-T.* **Kuo, C.-C.*** Advancing precision therapy for colorectal cancer: developing clinical indications for multi-target kinase inhibitor BPR1J481 using patient-derived xenograft models. *Pharmacological Research* 2025 Jan;211:107556 (SCI) Category: Pharmacology & Pharmacy; Impact factor: 10.5; Ranking: 13/353, 3.7%, 2024 JCR) (***Corresponding author**)
4. Chang, H.-H., Lee, L.-C., Hsu, T., Peng, Y.-H., Huang, C.-H., Yeh, T.-K., Lu, C.-T., Huang, Z.-T., Hsueh, C.-C., Kung, F.-C., Lin, L.-M., Huang, Y.-C., Wang, Y.-H., Li, L.-H., Tang, Y.-C., Chang, L., Hsieh, C.-C., Jiaang, W.-T.* **Kuo, C.-C.***, Wu, S.-Y.* Development of Potent and Selective Inhibitors of Methylenetetrahydrofolate Dehydrogenase 2 for Targeting Acute Myeloid Leukemia: SAR, Structural Insights, and Biological Characterization. *Journal of Medicinal Chemistry* 2024 Dec 12;67(23):21106-21125 (SCI) Category: Chemistry, Medicinal; Impact factor: 6.8; Ranking: 3/72, 9.7%, 2024 JCR) (***Corresponding author**)
5. Tang, Y.-C., Chuang, Y.-J., Chang, H.-H., Juang, S.-H., Yen, G.-C., Chang, J.-Y., **Kuo, C.-C.*** How to deal with frenemy NRF2: Targeting NRF2 for chemoprevention and cancer therapy. *Journal of Food and Drug Analysis* 2023 Sep; 31(3): 387-407 (Review)(SCI) Category: Food Science & Technology; Impact factor: 2.6; Ranking: 87/173, 50.3%, 2023 JCR) (***Corresponding author**) *This article is one of the cover highlights in volume 31 issue 3 of Journal of Food and Drug Analysis.*
6. Yeh, T.-K., Song, J.-S., Chang, P.-W., Yu, J.-C., Chang, C.-H., Liao, F.-Y., Tien, Y.-W., Kuppusamy, R., Li, A.-S., Chen, C.-H., Chen, C.-W., Lin, L.-M., Chang, H.-H., Huang, C.-H., Yao, J.-Y., Wu, M.-H., Peng, Y.-H., Hsueh, C.-C., Hsiao, W.-C., Chen, P.-H., Lin, C.-Y., Hsieh, S.-H., Shih, C., Hung, M.-S.* **Kuo, C.-C.***, Ueng, S.-H.* Discovery and development of a novel N-(3-bromophenyl)-[[(phenylcarbamoyl)amino]methyl]-N-hydroxythiophene-2-carboximidamide indoleamine 2,3-dioxygenase inhibitor using knowledge-based drug design. *European Journal of Medicinal Chemistry* 2022 Feb 5; 229:114043 (SCI) Category: Chemistry, Medicinal; Impact factor: 6.7; Ranking: 7/60, 11.7%, 2022 JCR) (***Corresponding author**)
7. Li, I.-C., Chang, F.-C., **Kuo, C.-C.**, Chu, H.-T., Li, T.-J.* **Chen, C.-C.*** Pilot Study: Nutritional and Preclinical Safety Investigation of Fermented Hispidin-Enriched Sanghuangporussanghuang Mycelia: A Promising Functional Food Material to Improve Sleep. *Frontiers in Nutrition* 2022 Jan 17; 8:788965 (SCI) Category: Nutrition & Dietetics; Impact factor:5.0; Ranking: 29/89, 32.6%, 2022 JCR)
8. Tang, Y.-C., Chang, H.-H., Chen, H.-H., Yao, J.-Y., Chen, Y.-T., Chuang, Y.-J., Chang, J.-Y., **Kuo, C.-C.*** A novel NRF2/ARE2 inhibitor gossypol induces cytotoxicity and sensitizes chemotherapy response in chemo-refractory cancer cells. *Journal of Food and Drug Analysis* 2021 Dec 14; 29(4):638-652(SCI) Category: Pharmacology & Pharmacy; Impact factor: 6.157; Ranking: 45/279, 16.1%, 2021 JCR) (***Corresponding author**)
9. Lee, W.-J., Tu, S.-H., Cheng, T.-C., Lin, J.-H., Sheu, M.-T., **Kuo, C.-C.**, Changou, C. A., Wu, C.-H., Chang, H.-W., Chang, H.-L., Chen, L.-C.* **Ho, Y.-S.*** Type-3 hyaluronan synthase attenuates tumor cells invasion in human mammary parenchymal tissues. *Molecules* 2021 Oct 29; 26(21):6548 (SCI) Category: Chemistry, Multidisciplinary; Impact factor: 4.927; Ranking: 65/180, 35%, 2021 JCR)
10. Lee, L.-C., Peng, Y.-H., Chang, H.-H., Hsu, T., Lu, C.-T., Huang, C.-H., Hsueh, C.-C., Kung, F.-C., **Kuo, C.-C.***, Jiaang, W.-T.* **Wu, S.-Y.*** Xanthine derivatives reveal an allosteric binding site in methylenetetrahydrofolate dehydrogenase 2 (MTHFD2). *Journal of Medicinal Chemistry* Aug 12; 64(15):11288-11301 (SCI) Category: Chemistry, Medicinal; Impact factor: 8.039; Ranking: 3/63, 4.8%, 2021 JCR) (***Corresponding author**)
11. Tang, Y.-C., Hsiao, J.-R., Jiang, S.-S., Chang, J.-Y., Chu, P.-Y., Liu, K.-J., Fang, H.-L., Lin, L.-M., Chen, H.-H., Huang, Y.-W., Chen, Y.-T., Tsai, F.-Y., Lin, S.-F., Chuang, Y.-J.* **Kuo, C.-C.*** c-MYC-directed NRF2 drives malignant progression of head and neck cancer via glucose-6-phosphate dehydrogenase and transketolase activation. *Theranostics* 2021 Mar 11; 11(11):5232-5247 (SCI) Category: Medicine, Research & Experimental; Impact factor: 11.600; Ranking: 13/140, 9.3%, 2021 JCR) (***Corresponding author**).