

## Wenzhe MA, Ph.D.



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Dr. Wenzhe Ma received his Ph.D. degree in Pharmacology at Shanghai Institute of Materia Medica, Chinese Academy of Sciences in 2005, and postdoctoral training shortly after that at the National Institutes of Health (NIH). He started his employment with the State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology as Assistant Professor in 2012 and was promoted to be Associate Professor in 2018. Dr. Ma has been focusing on cancer metabolism and screening nature products with anti-cancer activities for more than ten years. He published papers in international top journals, including the *New England Journal of Medicine*, *Nature Communications*, *Free Radical Biology and Medicine*, *PLoS One*, *Scientific Reports*, *Pharmacological Research*, *FEBS Letters*, *EBioMedicine* and *Phytomedicine*, either as first author or corresponding author. Dr. Ma has received 5 research funds from the Science and Technology Development Fund of Macau SAR as the principle investigator and has been granted 7 international patents.

### Research Interests:

- Screening and mechanism study of natural products with anti-cancer activities
- Cancer metabolism

### Education:

2002-2005 Ph.D. Shanghai Institute of Materia Medica,  
Chinese Academy of Sciences, China  
1999-2002 M.S. China Pharmaceutical University, China  
1995-1999 B.E. China Pharmaceutical University, China

### Professional Chronology:

2012-Present Assistant Professor, State Key Laboratory of Quality Research in  
Chinese Medicine, Macau University of Science and Technology  
2007-2012 Research Fellow, Center for Molecular Medicine, National Heart,

Lung and Blood Institute, National Institutes of Health  
2006-2007 Postdoctoral Fellow, Center for Molecular Medicine, National Heart,  
Lung and Blood Institute, National Institutes of Health

### **Publications:**

1. Xiaoming Huang, Jue Wang, Wanjun Lin, Na Zhang, Jingjing Du, Ze Long, You Yang, Bowen Zheng, Fangfang Zhong, Qibiao Wu, **Wenzhe Ma**. (2020) Kanglaite injection plus platinum-based chemotherapy for stage III/IV non-small cell lung cancer: A meta-analysis of 27 RCTs. *Phytomedicine*, 67:153154
2. Jiajun Huang, Jingjing Du, Wanjun Lin, Ze Long, Na Zhang, Xiaoming Huang, Ying Xie, Liang Liu, **Wenzhe Ma**. (2019) Regulation of lactate production through p53/ $\beta$ -enolase axis contributes to statin-associated muscle symptoms. *EBioMedicine*, <https://doi.org/10.1016/j.ebiom.2019.06.003>
3. Ze Long, Xiaolin Liao, Jiajun Huang, Na Zhang, Xiaoming Huang, Jingjing Du, Wanjun Lin, **Wenzhe Ma**. (2019) QHMEM, a Quinazolinone Compound, Inhibits Proliferation and Induces Apoptosis in Human Colon Cancer HCT116 Cells. *Latin American Journal of Pharmacy*, 38(4):663-667
4. Sharpkate Shaker, Ting-Ting Sun, Liang-Yue Wang, **Wen-Zhe Ma**, Dong-Lan Wu, Yong-Wei Guo, Jun Dong, Yan-Xiu Chen, Long-Ping Zhu, De-Po Yang, Hou-Jin Li, Wen-Jian Lan. (2019) Reactive oxygen species altering the metabolite profile of the marine-derived fungus *Dichotomomyces cejprii* F31-1. *Natural Product Research*, <https://doi.org/10.1080/14786419.2019.1611816>
5. 張娜，黃嘉駿，林婉君，龍澤，黃曉明，杜晶晶，**馬文哲** (2019) 腦膠質瘤中異檸檬酸脫氫酶突變及其抑制劑研究進展，*中國藥學雜誌*，54(3): 165-169
6. Dong-Lan Wu, Hou-Jin Li, Duncan R. Smith, Janejira Jaratsittisin, Xia-Fu-Kai-Ti Xia-Ke-Er, **Wen-Zhe Ma**, Yong-Wei Guo, Jun Dong, Juan Shen, De-Po Yang and Wen-Jian Lan. (2018) Polyketides and Alkaloids from the Marine-Derived Fungus *Dichotomomyces cejprii* F31-1 and the Antiviral Activity of Scequinadoline A against Dengue Virus. *Marine Drugs*, doi: 10.3390/md16070229
7. Jiajun Huang, Ze Long, Wanjun Lin, Xiaolin Liao, Ying Xie, Liang Liu and **Wenzhe Ma**. (2018) Integrative omics analysis of p53-dependent regulation of metabolism. *FEBS Letters*, 592(3):380-393, doi: 10.1002/1873-3468.12968
8. Xiaolin Liao, Jiajun Huang, Wanjun Lin, Ze Long, Ying Xie and **Wenzhe Ma**. (2018) APTM, a Thiophene Heterocyclic Compound, Inhibits Human Colon Cancer HCT116 Cell Proliferation Through p53-Dependent Induction of Apoptosis. *DNA and Cell Biology*, 37(2):70-77
9. Li-Hong Huang, Meng-Yang Xu, Hou-Jin Li, Jin-Qian Li, Yan-Xiu Chen, **Wen-Zhe Ma**, Jun Xu, De-Po Yang, and Wen-Jian Lan (2017) Amino Acid-Directed Strategy for Inducing the Marine-Derived Fungus *Scedosporium apiospermum* F41-1 to Maximize Alkaloid Diversity. *Organic Letters*, 19(18):4888-4891
10. Yan-Xiu Chen, Meng-Yang Xu, Hou-Jin Li, Kun-Jiao Zeng, **Wen-Zhe Ma**, Guo-Bao Tian, Jun Xu, De-Po Yang and Wen-Jian Lan (2017) Diverse Secondary Metabolites from the Marine-Derived Fungus *Dichotomomyces cejprii* F31-1. *Marine Drugs*, doi: 10.3390/md15110339

11. Li-Hong Huang, Yan-Xiu Chen, Jian-Chen Yu, Jie Yuan, Hou-Jin Li, **Wen-Zhe Ma**, Ramida Watanapokasin, Kun-Chao Hu, Shah Iram Niaz, De-Po Yang and Wen-Jian Lan (2017) Secondary Metabolites from the Marine-Derived Fungus *Dichotomomyces* sp. L-8 and Their Cytotoxic Activity. *Molecules*, doi:10.3390/molecules22030444
12. Wanjun Lin, Jiajun Huang, Zhongwen Yuan, Senling Feng, Ying Xie and **Wenzhe Ma**. (2017) Protein kinase C inhibitor chelerythrine selectively inhibits proliferation of triple-negative breast cancer cells *in vitro*. *Scientific Reports*, doi:10.1038/s41598-017-02222-0
13. Wanjun Lin, Jiajun Huang, Xiaolin Liao, Zhongwen Yuan, Senling Feng, Ying Xie and **Wenzhe Ma**. (2016) Neo-tanshinlactone selectively inhibits the proliferation of estrogen receptor positive breast cancer cells through transcriptional down-regulation of estrogen receptor alpha. *Pharmacological Research*, 111:849-858
14. Yantao Li, Wanjun Lin, Jiajun Huang, Ying Xie and **Wenzhe Ma**. (2016) Anti-cancer effects of *Gynostemma pentaphyllum* (Thunb.) Makino (Jiaogulan). *Chinese Medicine*, 11:43-58
15. Yantao Li, Jiajun Huang, Wanjun Lin, Zhongwen Yuan, Senling Feng, Ying Xie and **Wenzhe Ma**. (2016) In Vitro Anticancer Activity of a Nonpolar Fraction from *Gynostemma pentaphyllum* (Thunb.) Makino. *Evidence-Based Complementary and Alternative Medicine*, 2016 doi: 10.1155/2016/6308649
16. Senling Feng, Zhongwen Yuan, Xiaojun Yao, **Wenzhe Ma**, Liang Liu, Zhongqiu Liu and Ying Xie. (2016) Tangeretin, a citrus pentamethoxyflavone, antagonizes ABCB1-mediated multidrug resistance by inhibiting its transport function. *Pharmacological Research*, 110:193-204
17. **Wenzhe Ma**, Senling Feng, Xiaojun Yao, Zhongwen Yuan, Liang Liu, and Ying Xie. (2015) Nobiletin enhances the efficacy of chemotherapeutic agents in ABCB1 overexpression cancer cells. *Scientific Reports* 5: 18789
18. Zhongwen Yuan, Elaine Lai-Han Leung, Xingxing Fan, Hua Zhou, **Wenzhe Ma**, Liang Liu, and Ying Xie. (2015) Quantitative evaluation of berberine subcellular distribution and cellular accumulation in non-small cell lung cancer cells by UPLC–MS/MS. *Talanta* 144: 20-28.
19. Jie Li\*, **Wenzhe Ma**\*, Ping-yuan Wang, Paula J. Hurley, Fred Bunz, Paul M. Hwang (2014) Polo-like kinase 2 activates an antioxidant pathway to promote the survival of cells with mitochondrial dysfunction. *Free Radical Biology and Medicine* 73: 270-277. (\*Co-first author)
20. Ying Xie, Zhihong Jiang, Hua Zhou, **Wenzhe Ma**, Yuenfan Wong, Zhongqiu Liu, Liang Liu (2014) The pharmacokinetic study of sinomenine, paeoniflorin and paeonol in rats after oral administration of a herbal product Qingfu Guanjiesu capsule by HPLC. *Biomedical Chromatography* 28: 1294-1302
21. Ping-yuan Wang\*, **Wenzhe Ma**\*, Joon-Young Park, Francesco S. Celi, Ross Arena, Jeong W. Choi, Qais A. Ali, Dotti J. Tripodi, Jie Zhuang, Cory U. Lago, Louise C. Strong, S. Lalith Talagala, Robert S. Balaban, Ju-Gyeong Kang, Paul M. Hwang (2013) Increased Oxidative Metabolism in the Li–Fraumeni Syndrome. *NEW ENGLAND JOURNAL of MEDICINE*, 368(11):1027-1032 (\*Co-first author)

22. Jie Zhuang, **Wenzhe Ma**, Cory U. Lago, Paul M. Hwang (2012) Metabolic regulation of oxygen and redox homeostasis by p53: Lessons from evolutionary biology? *Free Radical Biology and Medicine*, 53(6):1279-1285
23. Ho Joong Sung\*, **Wenzhe Ma**\*, Matthew F. Starost, Cory U. Lago, Michael N.Sack, Ju-Gyeong Kang, Ping-yuan Wang, and Paul M. Hwang (2011). Ambient Oxygen as a Tumor Promoter. *PLoS ONE*, 6(5):e19785 (\*Co-first author)
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25. Ho Joong Sung\*, **Wenzhe Ma**\*, Ping-yuan Wang, James Hynes, Tomas C. O’Riordan, Christian A. Combs, J. Philip McCoy Jr., Fred Bunz, Ju-Gyeong Kang & Paul M. Hwang (2010). Mitochondrial Respiration Protects Against Oxygen-associated DNA Damage. *Nature Communications*, 1:5 doi: 10.1038/ncomms1003 (\*Co-first author)
26. Takumi Matsumoto, Ping-yuan Wang, **Wenzhe Ma**, Ho Joong Sung, Satoaki Matoba, and Paul M. Hwang (2009). Polo-like kinases mediate cell survival in mitochondrial dysfunction. *PNAS*, 106(34): 14542-11546
27. Joon-Young Park, Pingyuan Wang, Takumi Matsumoto, Ho-Joong Sung, **Wenzhe Ma**, Jeong W. Choi, Stasia A. Anderson Scot C. Leary, Robert S. Balaban, Ju-Gyeong Kang, Paul M. Hwang (2009). p53 Improves Aerobic Exercise Capacity and Augments Skeletal Muscle Mitochondrial DNA Content. *Circulation Research*, 105(7):705-712
28. **W Ma**, HJ Sung, JY Park, S Matoba, and PM Hwang (2007). A pivotal role for p53: balancing aerobic respiration and glycolysis. *J Bioenerg Biomembr*, 39(3):243-246
29. **MA Wen-Zhe**, HAN Wei, QIN Wen-Xin, WAN Da-Fang, GU Jian-Ren, YANG Sheng-Li, GONG Yi (2006). Expression and purification of a putative tumor suppressor gene PP5715 in E.coli with growth inhibition to hepatocellular carcinoma cells. *Protein and Peptide Letters*, 13: 41-45
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33. **馬文哲**; 王魯燕; 馮艷春; 陳代杰; 許文思 (2002). 頭狀鏈黴菌原生質體的製備及其誘變 *中國藥科大學學報*, 33: 62-65