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生物化学与分子生物学博士，澳门科技大学埃尔文·内尔博士生物物理与创新药物实验室/中药质量研究国家重点实验室副教授。2010年在广州中山大学取得生物化学与分子生物学博士学位，随后在香港科技大学生命科学部访问学者，期间从事 DNA 复制起始与癌症的研究。之后在美国西雅图 Fred Hutchinson Cancer Research Center, Gerald Smith 实验室完成六年的博士后训练，期间从事减数分裂同源重组的分子机制研究。马丽娟博士专长于用现代分子生物学与细胞生物学的方法研究细胞周期调控，抗癌药物作用靶点和机制。癌细胞经过 DNA 复制、细胞分裂，完成一个细胞周期，实现增殖。中药来源的活性物质可阻断有丝分裂的细胞周期，从而控制癌细胞增殖实现抗肿瘤效果。生殖细胞经过一个特殊的细胞周期——减数分裂，从而产生染色体数目减半的精子或卵子。这一过程的调控与不孕不育、生育力减退、出生缺陷等疾病密切相关。

课题组目前的研究兴趣和方向为：**1.** 中药来源的抗癌活性成分的作用机制。
2. 女性生殖衰老发生的分子机制及药物干预。

教学科目：《生物化学与分子生物学》，《生物化学与分子生物学实验》，《微生物与免疫学》，《药理与临床药学 III—临床药理学与药物治疗学》

研究方向: 1. 中药抗癌药物的作用机制; 2. 女性生殖衰老和生育力保护。

学历:

2003-2009 中山大学, 生化与分子生物学, 理学博士

1999-2003 山西师范大学, 生物学, 理学学士

工作经历:

2017-今 澳门科技大学, 助理教授/副教授

2011-2017 美国福瑞德·哈金森癌症研究中心 (Fred Hutchinson Cancer Research Center) 博士后

2009-2011 香港科技大学 访问学者

发表文章 (*为通讯作者):

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3. Zhong L., Lin X., Cheng X., Wan S., Hua Y., Nan W., Hu B., Peng X., Zhou Z., Zhang Q., Yang H., Noé F., Yan Z., Jiang D., Zhang H., Liu F., Xiao C., Zhou Z., Mou Y., Yu H., **Ma L.**, Huang C., Wong V.K.W., Chung S.K., Shen B., Jiang Z., Neher E., Zhu W., Zhang J., Hou P. Secondary structure transitions and dual PIP2 binding define cardiac KCNQ1-KCNE1 channel gating. *Cell Research*. 2025, 35(11):887.
4. Jian N., Yu L., **Ma L.**, Zheng B., Huang W. BCG therapy in bladder cancer and its tumor microenvironment interactions. *Clinical Microbiology Reviews*. 2025, 38(2): e0021224
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6. Wang M.F., Li M., Yang Y., Chuang Y., Tsai C. Binder M. N., **Ma L.**, Lin S., Li H., Smith G. R., and Chi P. Mug20–Rec25–Rec27 binds DNA and enhances meiotic DNA break formation via phase-separated condensates. *Nucleic Acids Research*. *Nucleic Acids Research*. 2025, doi.org/10.1093/nar/gkaf123
7. Jiang C., Chen Z., Xiong H., Yang X., Liao W., Chen G., Huang C., Zhu G., Yu H.*, **Ma L.***. *Lycium barbarum* berry extract improves female fertility against aging-related oxidative stress in the ovary. *Food & Function*. 2024 Sep 30;15(19):9779-9795.
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9. Liao W., Zhang R., Chen G., Zhu X., Wu W., Chen Z., Jiang C., Lin Z., **Ma L.**, Yu H*. Berberine synergises with ferroptosis inducer sensitizing NSCLC to ferroptosis in p53-dependent SLC7A11-GPX4 pathway. *Biomed Pharmacother*. 2024 Jul;176:116832.
10. Wang J., Lu L., He X., **Ma L.**, Chen T., Li G.*, Yu H.*. Identification of SULF1 as a Shared Gene in Idiopathic Pulmonary Fibrosis and Lung Adenocarcinoma. *Zhongguo Fei Ai Za Zhi*. 2023 Sep 20;26(9):669-683.
11. Qin X., Xie Z., Chen X., Wang X., **Ma L.***. Network pharmacology and molecular docking-based study on exploring the potential mechanism of *Lycium barbarum* L: In the treatment of atherosclerosis. *Medicine* (Baltimore). 2023 Nov 3;102(44):e35734.
12. Qin X., Zhang Y., Yu H., **Ma L.***. Progress in the Study of Spindle Assembly Checkpoint in Lung Cancer. *Zhongguo Fei Ai Za Zhi*. 2023 Apr 20;26(4):310-318.
13. Li J., Wu Z., Chen G., Wang X., Zhu X., Zhang Y., Zhang .R, Wu W., Zhu Y., **Ma L.**, Yu H.*. Formosanin C inhibits non-small-cell lung cancer progression by blocking MCT4/CD147-mediated lactate export. *Phytomedicine*, 2023 Jan, 109:154618.
14. Chen X., Li J., Zhang R., Zhang Y., Wang X., Leung E.L., **Ma L.**, Wong V.K.W.*, Liu L.*, Neher E.*, Yu H.*. Suppression of PD-L1 release from small extracellular vesicles promotes systemic anti-tumor immunity by targeting ORAI1 calcium channels. *Journal of Extracellular Vesicles*, 2022. Dec;11(12):e12279.
15. Chen G., Zhu X., Li J., Zhang Y., Wang X., Zhang R., Qin X., Chen X., Wang J., Liao W., Wu Z., Lu L., Wu W., Yu H.*, **Ma L.***. Celastrol inhibits lung cancer growth by triggering histone acetylation and acting synergically with HDAC inhibitors. *Pharmacol Res*. 2022 Oct 3:106487.

16. Leung E.L.*, Huang J., Zhang J., Zhang J., Wang M., Zhu Y., Meng Z., Yu H., Neher E., **Ma L.***, Yao X.*. Novel Anticancer Strategy by Targeting the Gut Microbial Neurotransmitter Signaling to Overcome Immunotherapy Resistance. *Antioxid Redox Signal*. 2022, Nov 1. doi: 10.1089/ars.2021.0243. Online ahead of print.
17. Wang X., Liu Z., **Ma L.**, Yu H*. Ferroptosis and its emerging role in tumor. *Biophysics Reports*, 2021, 7(4): 280-294.
18. Li J., Zhang Y., Chen X., **Ma L.**, Li P.*, Yu H.*. Protein phase separation and its role in chromatin organization and diseases. *Biomed Pharmacother*. 2021 Jun;138:111520
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20. **Ma L.#**, Milman N., Nambiar M. and Smith G.R.* Two separable functions of Ctp1 in the early steps of meiotic DNA double-strand break repair. *Nucleic Acids Research*, 2015 43(15): 7349-7359
21. **Ma L.#**, Zhai Y.#, Feng D., Chan T., Lu Y., Fu X., Wang J., Chen Y., Li J., Xu K., and Liang C.*. Identification of Novel Factors Involved in or Regulating Initiation of DNA Replication by a Phenotypic Screen in *Saccharomyces cerevisiae*. *Cell Cycle*, 2010 9(21): 4399-410

专利:

1. 抗肿瘤组合物及其应用。马丽娟，于海杰，陈格尔。CN 114632159 A，2023.8 授权。

产学研转化:

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