Yan Tong-Meng

Position: Assistant Professor

Faculty: State Key Laboratory of Quality Research in Chinese Medicine

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Dr. Yan Tong-Meng obtained his Bachelor and PhD degrees in medicine from Southern Medical University (the former First Military Medical University) in 2010 and 2015, respectively. He has been in the College of Pharmacy, University of Houston, USA, as a visiting scholar carrying out the proteome research in hepatocellular carcinoma patients from February to August, 2013. After graduation, he joined State Key Laboratory for Quality Research in Chinese Medicines, Macau University of Science and Technology (MUST) for his postdoctoral training, and was promoted to be an assistant professor in 2022. Dr. Yan's research areas include bioanalytical chemistry, chemical biology and proteomics. His research mainly focuses on the functional roles of RNA epigenetics in cancer, proteomics and metabolomics profiling of cancer, and TCM-based new drug discovery and development. He has published research papers in *Nucleic Acids Research*, *Analytical Chemistry*, *Molecular Therapy-Nucleic Acids*, *Molecular Cancer Therapeutics*, and *Pharmaceutical Research*. He also obtained 7 international patent approvals and these IP of TCM siRNA new drug technology have been successfully transferred.

Teaching and Research Areas

Teaching subjects: Selected Topics of Chemistry of Chinese Materia Medica, Analytical Chemistry, Chinese Medicines Analysis

Research Areas: Bioanalytical Chemistry, Chemical Biology, Proteomics

Academic Qualifications

2015.06 Ph.D, Southern Medical University, China

2010.06 B. Med, Southern Medical University, China

Teaching Experience

2022.01-Present Assistant Professor, Macau University of Science and Technology

2016.01-2021.12 Postdoctoral Research Fellow, Macau University of Science and Technology

2013.02-2013.08 Visiting Scholar, University of Houston, U.S.A

Representative Publications:

Papers:

1. Cao KY, **Yan TM (co-first author)**, Zhang JZ, Chan TF, Li J, Li C, Leung EL, Gao J, Zhang BX, Jiang ZH. A tRNA-derived Fragment from Chinese Yew Suppresses Ovarian Cancer Growth via Targeting TRPA1. *Mol Ther Nucleic Acids*, 2022, 27, 718. (IF=10.1)
2. **Yan TM**, Pan Y, Yu ML, Hu K, Cao KY, Jiang ZH. Full-Range Profiling of tRNA Modification Using LC-MS/MS at Single-Base Resolution Through a Site-Specific Cleavage Strategy. *Analytical Chemistry*, 2021, 93(3), 1423. (IF=7.0, JCR Ranking: 7/86).
3. Pan Y, **Yan TM (co-first author)**, Wang JR, Jiang ZH. The Nature of the Modification at Position 37 of $tRNA^{phe}$ correlates with Acquired Taxol Resistance. *Nucleic Acids Research*, 2021, 49(1), 38. (IF=17.0, JCR Ranking: 15/297).
4. **Yan TM**, Hu K, Ren F, Jiang ZH. LC-MS/MS Profiling of Post-Transcriptional Modifications in Ginseng tRNA Purified by a Polysaccharase-Aided Extraction Method. *Biomolecules*, 2020, 10(4), 621. (IF=4.9).
5. Cao KY, Pan Y, **Yan TM**, Jiang ZH. Purification, Characterization and Cytotoxic Activities of Individual tRNAs from Escherichia Coli. *International Journal of Biological Macromolecules*, 2020, 142, 355. (IF=5.1).
6. Xie C, **Yan TM (co-first author)**, Chen JM, Li XY, Zou J, Zhu LJ, Lu LL, Wang Y, Zhou FY, Liu ZQ, Hu M. LC-MS/MS Quantification of Sulfotransferases is Better than Conventional Immunogenic Methods in Determining Human Liver SULT Activities: Implication in Precision Medicine. *Scientific Reports*, 2017, 7(1), 1. (IF=4.6).
7. **Yan TM**, Lu LL, Xie C, Chen JM, Peng XJ, Zhu LJ, Wang Y, Li Q, Shi J, Zhou FY, Hu M. Severely Impaired and Dysregulated Cytochrome P450 Expression and Activities in Hepatocellular Carcinoma: Implications for Personalized Treatment in Patients. *Molecular*

Cancer Therapeutics, 2015, 14(12), 2874. (IF=6.3).

8. **Yan TM**, Gao S, Peng XJ, Shi J, Xie C, Li Q, Lu LL, Wang Y, Zhou FY, Liu ZQ, Hu M. Significantly Decreased and More Variable Expression of Major Cyps And Ugts In Liver Microsomes Prepared from HBV-Positive Human Hepatocellular Carcinoma and Matched Pericarcinomatous Tissues Determined Using an Isotope Label-Free UPLC-MS/MS Method. *Pharmaceutical Research*, 2015, 32(3), 1141. (IF=4.2).
9. Chen JM, Zheng HM, Zeng S, Xie C, Li X, **Yan TM**, Gong X, Lu L, Qi X, Wang Y, Hu M. Profiles and Gender-Specifics of UDP-Glucuronosyltransferases and Sulfotransferases Expressions in the Major Metabolic Organs of Wild-Type and Efflux Transporter Knockout FVB Mice. *Molecular Pharmaceutics*, 2017, 14(9), 2967. (IF=4.5).
10. Chen JM, Zhu LJ, Li X, Zheng HH, **Yan TM**, Xie C, Zeng S, Yu J, Jiang H, Lu L, Qi X. High-Throughput and Reliable Isotope Label-free Approach for Profiling 24 Metabolic Enzymes in FVB Mice and Sex Differences. *Drug Metabolism and Disposition*, 2017, 45(6), 624. (IF=3.8).
11. Shi J, Zheng HM, Yu J, Zhu LJ, **Yan TM**, Wu P, Lu L, Wang Y, Hu M, Liu ZQ. SGLT-1 Transport and Deglycosylation inside Intestinal Cells are Key Steps in the Absorption and Disposition of Calycosin-7-O-B-D-Glucoside in Rats. *Drug Metabolism and Disposition*, 2016, 44(3), 283. (IF=3.8).

Patents:

1. Jiang ZH, **Yan TM**, Cao KY. Method and pharmaceutical composition for treating cancer. China, CN201811503623.5.
2. Jiang ZH*, Hu K, **Yan TM**. Methods and compositions for preventing or treating heart disease. China, ZL201910784150.9.
3. Jiang ZH, Cao KY, Pan Y, **Yan TM**. Double-strand RNA molecule and uses thereof. China, CN202010083971.2.