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**教學科目：**分析化學（BP12203/ BPAZ0012）；分析化學實驗（BP12204）；基礎化學實驗（BP12103）；ME1012 中藥藥代動力學；ME1002 儀器分析；DCMSZ02 中藥專題導讀；藥物分析

**研究方向：**化學計量學在分析化學中的應用；基於現代分析技術的中藥成分分析及質量控制；核苷酸及脫氧核苷酸代謝與DNA修復

**簡介：**張偉博士，2008年獲得中國藥科大學哲學博士學位。2008-2012于美國耶魯大學藥理係從事博士後研究工作，2012年8月受聘于澳門科技大藥物與健康應用研究所任助理教授，2017年8月升職為副教授。張偉博士一直從事中藥質量控制及複方藥劑研究，將化學計量學理論應用於中藥分析過程，形成簡單、成熟、可控的中藥質量控制模式，具有較強的實用性。博士後研究期間，參與中藥複方PHY906降低化療藥物胃腸道毒副作用的作用機理研究，發表於Science Translational Medicine，多家世界知名期刊和機構對此研究成果給予了高度肯定。此外張偉博士還系統研究了DNA損傷及修復過程中核糖核酸及去氧核糖核酸的變化，及在癌細胞與正常細胞之歧異性，進而以此為基礎並結合化學計量學手段尋找了新的抗癌分子標記物。以核苷酸及去氧核苷酸的平衡為指標，尋找到具有明顯協同作用的中藥有效成份。張偉副教授近五年來主持了澳門科學技術發展基金重大研究項目、澳門科學技術發展基金-國家基金委聯合資助項目等課題，在SCI收錄刊物上發表近50篇學術論文，擁有澳大利亞創新專利6項。

**學歷：**

2003年7月-2008年7月 中国药科大学药物分析专业硕博连读攻读博士学位

1996年7月-2000年7月 中国药科大学学士学位

#### 工作經歷：

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2012年8月—至今 澳門科技大學 助理教授

2008年8月—2012年8月 美国耶鲁大学医学院 博士后

#### 學術成果

部分發表的SCI期刊論文：(\*Corresponding author )

- (1) X. Wu, Y.L. Chen, Z Xing, C.W.K. Lam, S.S. Pang, **W. Zhang\***, Z.C. Ju\*, Advanced Carbon-Based Anodes for Potassium-Ion Batteries, *Advanced Energy Materials*, 1900343 (2019) DOI: 10.1002/aenm.201900343
- (2) Z. Li, H. X. Zhang, Y Li, C.W.K. Lam, C.Y. Wang, W.J. Zhang, V.K.W. Wong, S.S Pang, M.C. Yao\*, **W. Zhang\***, Method for Quantification of Ribonucleotides and Deoxyribonucleotides in Human Cells Using (Trimethylsilyl)diazomethane Derivatization Followed by Liquid Chromatography-Tandem Mass Spectrometry, *Analytical Chemistry*, 91(2019) 1019-1026
- (3) M.P. Liu, W. Li, C. Dai, C.W.K. Lam, Z. Li, J.F. Chen, Z.G. Chen, W. Zhang \*, M.C. Yao \*, Aqueous extract of *Sanguisorba officinalis* blocks the Wnt/-catenin signaling pathway in colorectal cancer cells, *Rsc Advances*, 8 (2018) 10197-10206.
- (4) X. Ling, Y. Xiang, F. Chen, Q. Tang, W. Zhang\*, X. Tan\*, Intestinal absorption differences of major bioactive compounds of Gegenqinlian Decoction between normal and bacterial diarrheal mini-pigs in vitro and in situ, *J Chromatogr B Analyt Technol Biomed Life Sci*, 1083 (2018) 93-101.
- (5) J. Guo, Y. Li, C.W.K. Lam, C. Wang, M. Yao\*, W. Zhang\*, ZH-1 enhances the anticancer activity of gemcitabine via deoxyribonucleotide synthesis and apoptotic pathway against A549 cells, *Food Chem Toxicol*, (2018).
- (6) X.M. Dai, D.N. Cui, J. Wang, W. Zhang, Z.J. Zhang, F.G. Xu, Systems Pharmacology Based Strategy for Q-Markers Discovery of HuangQin Decoction to Attenuate Intestinal Damage, *Front Pharmacol*, 9 (2018) 236.

- (7) X. Wang, D.N. Cui, X.M. Dai, J. Wang, W. Zhang, Z. J. Zhang, F.G. Xu, Huang Qin Decoction Attenuates CPT-11-Induced Gastrointestinal Toxicity by Regulating Bile Acids Metabolism Homeostasis, *Front Pharmacol*, 8 (2017) 156.
- (8) Z. Li, J.R. Guo, Q.Q. Chen, C.Y. Wang, W.J. Zhang, M.C. Yao, W. Zhang\*, Exploring the Antitumor Mechanism of High-Dose Cytarabine through the Metabolic Perturbations of Ribonucleotide and Deoxyribonucleotide in Human Promyelocytic Leukemia HL-60 Cells, *Molecules*, 22 (2017).
- (9) Q. Guo, Q.Q. Zhang, J.Q. Chen, W. Zhang, H.C. Qiu, Z.J. Zhang, B.M. Liu, F.G. Xu, Liver metabolomics study reveals protective function of *Phyllanthus urinaria* against CCl<sub>4</sub>-induced liver injury, *Chinese Journal of Natural Medicines*, 15 (2017) 525-533.
- (10) C. Dai, M.P. Liu, W.J. Zhang, C.W.K. Lam, J.R. Guo, W. Li, J. Wu, J.F. Chen, Z.G. Chen, W. Zhang\*, M.C. Yao\*, A material-basis study of Aloe vera on the wnt/beta-catenin signaling pathway using a knockin/knockout method with high-speed countercurrent chromatography, *Rsc Advances*, 7 (2017) 38819-38829.
- (11) Q.Q. Chen, H.L. Xi, C.Y. Wang, F.G. Xu, W. Zhang\*, Quantitation of camellianin A in HepG2 cells using a high performance liquid chromatography-electrospray ionization tandem mass spectrometric method, *Chin J Nat Med*, 15 (2017) 234-240.
- (12) J.F. Chen, S.D. Li, M.P. Liu, C.W.K. Lam, Z. Li, X.J. Xu, Z.G. Chen, W. Zhang\*, M.C. Yao\*, Bioconcentration and Metabolism of Emodin in Zebrafish *Eleutheroembryos*, *Frontiers in Pharmacology*, 8 (2017).
- (13) J.R. Guo, Q.Q. Chen, C.W.K. Lam, C.Y. Wang, F.G. Xu, B.M. Liu, W. Zhang\*, Effect of *Phyllanthus amarus* Extract on 5-Fluorouracil-Induced Perturbations in Ribonucleotide and Deoxyribonucleotide Pools in HepG2 Cell Line, *Molecules*, 21 (2016).
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- (22) J. Guo, Q. Chen, C. W. K. Lam, C. Wang, V. K. W. Wong, F. Xu, Z. Jiang, W. Zhang\*, Application of artificial neural network to investigate the effects of 5-fluorouracil on ribonucleotides and deoxyribonucleotides in HepG2 cells, *Scientific Reports*, 5 (2015).
- (23) H. Fan‡, W. Zhang‡, J. Wang, M. Lv, P. Zhang, Z. Zhang, F. Xu, HPLC–MS/MS method for the determination of four lignans from *Phyllanthus urinaria* L. in rat plasma and its application, *Bioanalysis*, 7 (2015) 701–712. (Co-first author)
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- (36)W. Zhang, B.-r. Xiang, P.-c. Ma, Determination of oxymatrine in human plasma by LC-MS and study on its pharmacokinetics, *Journal of Chromatographic Science*, 46 (2008) 529-533.
- (37)W. Zhang, B.-r. Xiang, C.-y. Wang, Liquid chromatography-mass spectrometry method for the determination of venlafaxine in human plasma and application to a pharmacokinetic study, *Biomedical Chromatography*, 21 (2007) 266-272.
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#### 學術書籍

Wing Lam , Scott Bussom , Zaoli Jiang , **Wei Zhang** , Fulan Guan , Shwu-Huey Liu , and Yung-Chi Cheng , “Inflammation, Oxidative Stress and Cancer: Dietary Approaches for Cancer Prevention” CRC press, INC.,(ISBN 9781466503700), Chapter Number 29, ” PHY906, a cancer adjuvant therapy, differentially affects inflammation of different tissues”

### **學術機構及社會任職**

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### **學術獎勵**

2014 年度澳門科技大學中銀學術研究優秀獎