

Curriculum Vitae of Wei Zhang

Assistant Professor, PhD

Macau Institute for Applied Research in Medicine and Health

State Key Laboratory for Quality Research in Chinese Medicines
Macau University of Science and Technology



Research Interests:

- ✓ Use of chemometrics methods to deal with all steps of analytical procedures;
- ✓ Pharmaceutical Analysis (Chemical and Instrumental Analysis);
- ✓ Pharmacokinetic and metabolism study of chemical drugs and traditional Chinese medicines (TCM);
- ✓ Phytochemical analysis and quality assessment of traditional Chinese medicines (TCM) based modern instruments;

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Dr. Wei Zhang obtained his PhD from China pharmaceutical university in 2008. He proceeded to his post-doctoral training at Department of pharmacology from Yale University School of Medicine during 2008-2012. In the Yale University, his study focused on phytochemical and Pharmacokinetic studies of PHY906 (Chinese botanical formulation of Huang Qin Tang). He participated in the PHY906 phase I/II clinical trials in U.S. as a modulator of capecitabine and Irinotecan. He has published several well-recognized research articles including identification of PHY906

chemicals and their metabolites in patient plasma and determination of all ribonucleotides and Deoxyribonucleotides. He also joined the study of mechanism of phy906 and published research article in the journal of Science Translational Medicine as a co-author, which has been reported by the Nature News & Comment and Science Daily News. In August 2012, he moved to Macau Institute for Applied Research in Medicine and Health, Macau University of Science and Technology as an assistant professor.

Education:

July, 2000, B.Sc. China Pharmaceutical University

July, 2008, Ph. D China Pharmaceutical University

Professional Chronology:

Aug, 2008-Dec, 2011 Post-Doctoral Associate, School of Medicine, Yale University

Jan, 2012-Aug, 2012 Associate Research Scientists, School of Medicine, Yale University

Aug, 2011-Aug, 2012, Manager of core lab of Yale Cancer Center, Yale University

Aug, 2012-Present Assistant Professor, Macau Institute for Applied Research in Medicine and Health, Macau University of Science and Technology

Teaching Subjects:

Instrumental analysis

Research Fields:

Pharmaceutical Analysis; Chemometrics; Pharmacokinetic and metabolism study

Selected Publications:

1. **Wei Zhang**, Bingren Xiang, Yanwei Wu, Erxin Shang. Stochastic resonance is applied to quantitative analysis for weak chromatographic signal of glyburide in plasma. *Analytica Chimica Acta*, 2005, 550:77–81.
2. **Wei Zhang**, Bingren Xiang, Yanwei Wu, Erxin Shang. Stochastic resonance is

applied to quantitative analysis for weak chromatographic signal of roxithromycin in beagle dog plasma. *Journal of Chromatography B*,2006, 831(1-2):307-12.

3. **Wei Zhang**, Xiang Bing-ren.A new single-well potential stochastic resonancealgorithm to detect the weak signal .**Talanta**,2006, 70: 267–271.

4. **Wei Zhang**, Bing-RenXiang,ADuffing oscillator algorithm to detect the weak chromatographic signal.*AnalyticaChimicaActa*,2007, 585:55–59.

5. **Wei Zhang**, Xiang Bing-ren and Wang Cai-yun, Liquid chromatography–mass spectrometry methodfor the determination of venlafaxine in humanplasma and application to a pharmacokinetic study.*Biomedical Chromatography*2007,21: 266–272.

6. **Wei Zhang**, Bing-ren Xiang, Peng -chengMa,Determination of oxymatine in human plasma by LC-MS and study on its Pharmacokinetics.*Journal of Chromatographic Science*, 2008, 46(6): 529-533.

7. **Wei Zhang**, Xiang Bing-ren,zhanying,Yuliyang,WangTeng,Wangcai-yun,High-performance Liquid chromatography method for the determination of bezafibrate in human plasma and application to a pharmacokinetic study of bezafibrate dispersible tablet.*Journal of Chromatographic Science*, 2008,46(9):844-847.

8. **Wei Zhang**, Xiang Bing-ren, Zhang Jing,High-performance Liquid chromatography method for the determination of Mycophenolic acid in human plasma and application to a pharmacokinetic study of Mycophenolic acid dispersible tablet.*ArzneimittelForschungDrug Research*, 2008, 7: 348-352.

9. **Wei Zhang**,Dutschman GE, Li X, Ye M, Cheng YC, Quantitation of Irinotecan and its two major metabolites using a liquid chromatography-electrospray ionization tandem mass spectrometric..*Journal of Chromatography B*,2009, 877(27):3038-44.

10. **Wei Zhang**, Muhammad W. Saif, ginger E Dutschman, xin li, Wing Lam, Scott Bussom, Zaoli Jiang, Min ye, Edward Chu, and Yung-Chi Cheng, Identification of chemicals and their metabolites from PHY906, a Chinese medicine formulation, in the plasma of a patient treated with irinotecan and PHY906 using liquid chromatography/tandem mass Spectrometry (LC/MS/MS), *Journal of Chromatography A*,2010,1217(37):5785

11. **Wei Zhang**, Shenglan Tan, Elijah Paintsil, Ginger E. Dutschman, Elizabeth A. Gullen and Yung-Chi Cheng, Analysis of deoxyribonucleotide pools in human cancer cell lines using a liquid chromatography coupled with tandem mass spectrometry technique, *Biochemical Pharmacology*, 2011 82(4): 411-417.
12. **Wei Zhang**, Ginger E. Dutschman, Xin Li, Yung-Chi Cheng, Quantitation of Paclitaxel and its two major metabolites using a liquid chromatography–electrospray ionization tandem mass spectrometric, *Journal of Chromatography B*, 2011 879(22):2018-22.
13. Wing Lam, Scott Bussom, Fulan Guan, Zaolijiang, **Wei Zhang**, Elizabeth A. Gullen, Shwu-Huey Liu, and Yung-Chi Cheng. The Four-Herb Chinese Medicine PHY906 Reduces Chemotherapy-Induced Gastrointestinal Toxicity. *Science Translational Medicine*, Med 18 2010,2(45):45.
14. Caiyun Wang, Bingren Xiang, **Wei Zhang**. Application of two-dimensional near-infrared correlation spectroscopy (2D-NIR) to the discrimination of three species of *Dendrobium*. *Journal of Chemometrics*, 2009, 23(9):463-70.
15. Caiyun Wang, **Wei Zhang**, Bingren Xiang, Liyan Yu, Pengcheng Ma. Liquid Chromatography-Mass Spectrometry Method for the Determination of Gliclazide in Human Plasma and Application to a Pharmacokinetic Study of Gliclazide Sustained Release Tablets. *ArzneimittelForschung Drug Research*, 2008,12: 653-658.
16. Jia Xia, Bingren Xiang, **Wei Zhang**, Determination of metacrate in water samples using dispersive liquid-liquid microextraction and HPLC with the aid of response surface methodology and experimental design. *Analytica Chimica Acta*, 2008, 625:28-34.
17. YeYe; Xiang Bingren; **Wei Zhang**; Shang Erxin, Stochastic resonance is applied to quantitative analysis for weak chromatographic signal of Sudan I. *Physics Letters A*, 2006,359:620-623.
18. Ying Zhan; Bingren Xiang; **Wei Zhang**; Shaofei Xie; Haishan Deng; Suyun Xiang, Single-well Potential Stochastic Resonance Applied to Quantitative Analysis for Weak Chromatographic Signals of Sudan IV. *Analytical Letters*, *Analytical Letters*, 40:12,

2415 – 2424.

張偉博士

助理教授，博士

澳門科技大學澳門藥物及健康應用研究所

中藥質量研究國家重點實驗室(澳門科技大學)

助理教授



研究方向

- ✓ 化學計量學在分析化學中的應用
- ✓ 藥物分析（化學及儀器分析）
- ✓ 基於現代分析技術的中藥成分分析及質量控制

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張偉博士，2008年獲得中國葯科大學博士學位。2008-2012于美國耶魯大學藥理係從事博士後研究工作。博士后期間，主要研究工作為PHY906（中藥複方黃芩湯）的化學成分分析及其葯代動力學研究，參加了PHY906的美國一期/二期臨床實驗研究。博士后期間發表了包括鑒別PHY906體內代謝物和測定核苷酸和脫氧核苷酸等論文。作為合作者參加了PHY906部分機理研究工作，研究成果发表于 Science Translational Medicine，該文章的發表掀起了西方國家對中葯的研究熱潮。包括Nature News & Comment and Science Daily News等多家世界知名期刊和機構對此研究成果給予了高度肯定和評價。2012年8月受聘于澳門科技大葯物與健康應用研究所任助理教授。

學歷：

2000年7月中国药科大学学士学位

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

工作經歷：

2008年8月—2012年8月美国耶鲁大学医学院从事博士后研究工作

2012年8月—至今澳門科技大學助理教授

授課科目：

儀器分析

研究領域：

藥物分析；儀器分析；藥物代謝動力學

研究論文：

1. **Wei Zhang**, Bingren Xiang, Yanwei Wu, Erxin Shang. Stochastic resonance is applied to quantitative analysis for weak chromatographic signal of glyburide in plasma. *Analytica Chimica Acta*, 2005, 550:77–81.
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Chromatographic Science, 2008, 46(6): 529-533.

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12. **Wei Zhang**, Ginger E. Dutschman, Xin Li, Yung-Chi Cheng, Quantitation of Paclitaxel and its two major metabolites using a liquid chromatography–electrospray ionization tandem mass spectrometric, *Journal of Chromatography B*, 2011 879(22): 2018-22.
13. Wing Lam, Scott Bussom, Fulan Guan, Zaolijiang, **Wei Zhang**, Elizabeth A. Gullen, Shwu-Huey Liu, and Yung-Chi Cheng. The Four-Herb Chinese Medicine PHY906 Reduces Chemotherapy-Induced Gastrointestinal Toxicity. *Science*

Translational Medicine, Med 18 2010,2(45):45.

14. Caiyun Wang, Bingren Xiang, **Wei Zhang**. Application of two-dimensional near-infrared correlation spectroscopy (2D-NIR) to the discrimination of three species of *Dendrobium*. *Journal of Chemometrics*, 2009, 23(9):463-70.
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18. Ying Zhan; Bingren Xiang; **Wei Zhang**; Shaofei Xie; Haishan Deng; Suyun Xiang, Single-well Potential Stochastic Resonance Applied to Quantitative Analysis for Weak Chromatographic Signals of Sudan IV. *Analytical Letters*, *Analytical Letters*, 40:12, 2415 – 2424.