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EDUCATION EXPERIENCE:

1989-1994 M.D. West China University of Medical Sciences, Chengdu, Sichuan, P.R. China.
1994-1999 Ph.D. West China University of Medical Sciences, Chengdu, Sichuan, P.R. China
1999-2001 Post-Doctor Xiangya Medical School Cancer Research Institute, Central South University, Chansha, Hunan, P.R. China.

WORK EXPERIENCE:

1999-2001 Research Assistant Professor, Xiangya Medical School, Central South University, Changsha, Hunan, P.R. China
2001-2005 Post-doctoral Researcher, Department of Neurology, University of Tennessee Health Science Center, Memphis, Tennessee, U.S.A.
2005-2006 Assistant Professor, Department of Neurology, University of Tennessee Health Science Center, Memphis, Tennessee, U.S.A.
2006-2007 Project Scientist, Department of Ophthalmic Research, The Cole Eye Institute, The Cleveland Clinic, Cleveland, Ohio, U.S.A.
2008-2010 Assistant Professor, Department of Neurology, University of Tennessee Health Science Center, Memphis, Tennessee, U.S.A.
2010- Associate Professor, Department of Neurology, University of Tennessee Health Science Center, Memphis, Tennessee, U.S.A.
2012-present Distinguished Professor of Disease Proteomics and Structural Biology, Xiangya Hospital, Central South University, Changsha, Hunan, P. R. China.

EDITORIAL BOARD MEMBERS:

BMC Medical Genomics: Associate Editor
BMC Genomics: Associate Editor
EPMA-Journal: member

SOCIETY MEMBERS:

European Association for Predictive, Preventive, and Personalized Medicine (EPMA)
American Association for Cancer Research (AACR)
Association for Research in Vision and Ophthalmology (ARVO)

Human Proteome Organization (HUPO)
The Society of Neuroscience (SfN)
Chinese American Society of Mass Spectrometry (CASMS)
American Society for Mass Spectrometry (ASMS)

HONORS/AWARDS:

01/2011 The EPMA-Journal Award-2010, 1st Place Award (http://epmanet.eu/images/stories/pdfs/award_cancer_3_2010.pdf)

04/2010 Young Neuroscientist Award funded by the Webster Endowment. (http://www.uthsc.edu/research/research_newsletter/docs/2010-04-April.pdf)

02/2007 The National Eye Institute Travel Grant Award for the 2007 ARVO (Association for Research in Vision and Ophthalmology) Annual meeting (Fort Lauderdale, Florida, USA). (http://www.arvo.org/eweb/DynamicPage.aspx?site=AM_2007&WebCode=TravelGrantInfo)

11/2005 Hunan Province Scientific Technological Achievement Award, 1st Place (No. 4 2005-230-064). Xiang Zheng Han [2005] No.190.

03/2005 Hunan Province Medical Scientific Technological Achievement Award, 1st Place (No. 200409). Xiang Yi Xue Hui Zi [2005] No.15.

1/2003 Sichuan University Outstanding Doctoral Thesis Recognition Medal.

7/2000 Chinese Postdoctoral Scientific Research Fund Prize (No.: Zhongboji[2000]23)

1997-1998 The First Hongkong Union Medicine Education Medal

1996-1997 Excellent graduate student cadre title of West China University of Medical Sciences

1996-1997 Excellent graduate student scholarship of West China University of Medical Sciences

1994-1995 Excellent graduate student scholarship of West China University of Medical Sciences

SciTopics PAGES:

1. **Zhan X** and Desiderio DM. Human Pituitary Tumor Proteomics. http://www.scitopics.com/Human_Pituitary_Tumor_Proteomics.html.
2. **Zhan X** and Desiderio DM. Detection and Identification of Endogenous Nitrotyrosine-containing Proteins. http://www.scitopics.com/Detection_and_Identification_of_endogenous_Nitrotyrosine_containing_Proteins.html.

PATENT:

Desiderio DM and **Zhan X**. Nitroprotein Biomarkers for COPD. No.: 20100183578.

BOOKS AND BOOK CHAPTERS:

1. **Zhan X**. Two dimensional electrophoresis. In: Experimental Protocols for Medical Biology in Chinese and English. Wei Zhen (ed.). Xie He Medical University Press of China. March, 2005. ISBN 7-81072618/R.611.
2. **Zhan X**, Desiderio DM, Sacks H. The human pituitary proteome: clinical applications. In: Medical Applications of Mass Spectrometry. Vekey K, Telekes A, Vertes A (eds.). Elsevier Science Publisher. ISBN-10: 0444519807; ISBN13: 978-0444519801. (2007).
3. **Zhan X** (corresponding author), Desiderio DM. Detection of nitrotyrosine-containing proteins. In: The Protein Protocols Handbook Third Edition. John M. Walker (ed.). Humana Press Inc. ISBN: 978-1-60327-474-6 (2009).
4. **Zhan X** (corresponding author), Desiderio DM. Mass spectrometric identification of in vivo nitrotyrosine sites in the human pituitary tumor proteome. In the book: Neuroproteomics ¨C Methods and Protocols. Andrew K. Ottens and Kevin K.W. Wang (eds.). Humana Press Inc. ISBN: 978-1-934115-84-8 (2009)

PEER-REVIEWED JOURNAL ARTICLES:

1. Wang M, Wang Z, Luo J, Wang X, **Zhan X,** Zhu R. 5-year before-and after comparison of lung function in asbestos workers. Journal of West China University of Medical Sciences, 27: 94-96 (1996).
2. Wang MZ, Wang ZM, **Zhan XQ**. Study on relationship between mental function and work ability among aging workers. J Occup Health & Damage, 12: 4-6 (1997).
3. Wang MZ, **Zhan XQ,** Zhan CL. Study on health assessmental index and method of aged people. J Occup Health & Damage, 12: 68-71 (1997).
4. **Zhan X,** Wang Z, Wang M, Lan Y, Shen N. The relationship between pulmonary function and work ability of aging workers. Journal of West China University of Medical Sciences, 28: 320-324 (1997).
5. **Zhan XQ**, Wang ZM, Wang MZ, et al. The relationship between the maximal expiratory flow and work ability among aging worker. Chin J Ind Hyg Occup Dis, 16: 92-95 (1998).
6. **Zhan XQ**, Wang MZ, Wang ZM. Nitric oxide radical and its role in asbestos-induced pulmonary fibrosis study. J Occup Health & Damage, 14: 178-180 (1999).
7. **Zhan XQ**, Wang ZM. The roles of cytokines in asbestos-induced pulmonary fibrosis. Foreign Medical Sciences-Hygiene section, 26: 129-137 (1999).
8. **Zhan XQ**, Yang Q, Wang ZM. Comparison study on changes of glutathione peroxidase activity in quartz and chrysotile-treated rabbit alveolar macrophage. J Occup Health & Damage, 14: 129-132 (1999).
9. **Zhan X,** Wang Z, Yang Q, Wang M, Liu Z. Effects of chrysotile on nitric oxide production and anti-oxidasic activity in rabbit alveolar macrophages. Journal of West China University of Medical Sciences, 31: 58-61 (2000).
10. **Zhan XQ**, Yang Q, Wang ZM. Quartz and chrysotile up-regulate nitric oxide and nitric oxide synthase activity in rabbit alveolar macrophages. China Public Health, 16: 684-686 (2000).
11. **Zhan XQ**, Wang ZM, Yang Q, Wang MZ. Role of Supernatants-treated by Crocidolite on Human Embryonic Pulmonary Fibroblasts. China Public Health, 16: 794-796 (2000).
12. **Zhan XQ**, Yang Q, Wang ZM, Wang MZ. The Effect of Protein Kinase Inhibitor On The Changes Of Cell Cycle-Regulating Protein statement Of Human Embryonic Pulmonary Fibroblasts Induced By Crocidolite. Chin J Ind Med, 13: 257-261 (2000).
13. **Zhan XQ**, Yang Q, Wang ZM. Cell proliferative signal transduction pathway and pulmonary fibrosis induced by asbestos. Chin J Ind Hyg Occup Dis, 18: 61-64 (2000).
14. **Zhan XQ**, Yang Q, Wang ZM, Wang MZ. Effect of Protein Kinase Inhibitor On The Changes of Cell Cycle And Apoptosis of Human Embryonic Pulmonary Fibroblast Induced By Crocidolite. Chin J Prev Med, 34: 375-376 (2000).
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16. **Zhan XQ**, Yang Q, Wang ZM, Wang MZ. The Role of PKC Signal Transduction Pathways In the Changes of Both Cell Cycle And Apoptosis of Human Embryonic Pulmonary Fibroblast Induced By Chrysotile. Chin J Ind Hyg Occup Dis, 19: 34-36 (2001).
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19. Li C, **Zhan XQ**, Chen ZC. Bio-sensor chip mass spectrometry and its application in proteomics. Chemistry

of Life, 10: 157-160 (2001).
20. **Zhan XQ**, Chen ZC. A new strategy of cancer research: proteomic study. Foreign Medical Sciences-Oncology Section, 28(suppl): 1-4 (2001).
21. **Zhan XQ,** Chen ZC. The current status and prospect of proteomic separating techniques. Foreign Medical Sciences-Molecular Biology Section, 23: 343-348 (2001).
22. **Zhan XQ**, Chen ZC, Li C, Guan YJ, Xie JY, Cheng P, Liang SP. Analysis of human lung squamous carcinoma cell line NCI-H520 proteome by two-dimensional polyacrylamide gel electrophoresis and MALDI-TOF-mass spectrometry. Chinese Journal of Cancer, 20: 575-582 (2001).
23. **Zhan XQ,** Chen ZC. The current status of protein identification techniques in proteomics. Foreign Medical Sciences-Molecular Biology Section, 24: 129-133 (2002).
24. **Zhan XQ,** Guan YJ, Li C, Chen ZC, Xie JY, Chen P, Liang SP. Differential proteomic analysis of human lung adenocarcinoma cell line A-549 and of normal cell line HBE. Acta Biochemica et Biophysica Sinica, 34: 50-56 (2002).
25. Li C, **Zhan X,** Li M, Wu X, Li F, Li J, Xiao Z, Chen Z, Feng X, Chen P, Xie J, Liang S. Proteomic comparison of two-dimension gel electrophoresis profiles from human lung squamous carcinoma and normal bronchial tissues. Genomics Proteomics Bioinformatics, 1: 58-67 (2003).
26. Li C, Chen Z, Xiao Z, Wu X, **Zhan X,** Zhang X, Li M, Li J, Feng X, Liang S, Chen P, Xie J. Comparative proteomics analysis of human lung squamous carcinoma. Biochemical and Biophysical Research Communications, 309: 253-260 (2003).
27. **Zhan X,** Desiderio DM. Differences in the spatial and quantitative reproducibility between two second-dimensional gel electrophoresis systems. Electrophoresis, 24: 1834-1846 (2003).
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29. Desiderio DM, **Zhan X.** A study of the human pituitary proteome: The characterization of differentially expressed proteins in an adenoma compared to a control. Cellular & Molecular biology, 49: 689-712 (2003).
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32. **Zhan X,** Evans CO, Oyesiku NM, Desiderio DM. Proteomics and tanscriptomics analyses of secretagogin down-regulation in human non-functional pituitary adenomas. Pituitary, 6: 189-202 (2003).
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34. Li C, Chen ZC, Xiao ZQ, Wu XY, **Zhan XQ,** Li MY, Feng XP, Zhang XP, Li JL, Chen P, Liang SP. Differential analysis of two-dimension gel electrophoresis profiles of human lung squamous carcinoma and tumor-adjacent tissue. Chinese Journal of Cancer, 23: 28-35 (2004).
35. **Zhan X,** Desiderio DM. The human pituitary nitroproteome: detection of nitrotyrosyl-proteins with two-dimensional Western blotting, and amino acid sequence determination with mass spectrometry. Biochem Biophys Res Commun 325: 1180-1186 (2004).
36. **Zhan X,** Desiderio DM. Comparative proteomics analysis of human pituitary adenomas: Current status and future perspectives. Mass Spectrom Reviews, 24: 783-813 (2005).
37. **Zhan X,** Giorgianni F, Desiderio DM. Proteomics analysis of growth hormone isoforms in the human pituitary. Proteomics, 5:1228-1241 (2005).
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41. Gu J, **Zhan X,** Crabb JS, Bala E, Renganathan K, Hagstrom SA, Lewis H, Salomon RG, Crabb JW, Cleveland AMD Study Group. Oxidative modifications as biomarkers for AMD. Invest Ophthalmol Vis Sci, 48: E-abstract 34 (2007).
42. **Zhan X,** Du Y, Crabb JS, Kern TS, Crabb JW. Identification of nitrated proteins in diabetic rat retina. Invest Ophthalmol Vis Sci, 48: E-abstract 4962 (2007).
43. Justilien V, Pang JJ, Renganathan K, **Zhan X**, Crabb JW, Kim SR, Sparrow JR, Hauswirth WW, Lewin AS. SOD2 knockdown mouse model of early AMD. Invest Ophthalmol Vis Sci, 48: 4407-4420 (2007).
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46. **ZhanX** *(corresponding author)*, Desiderio DM. Mass spectrometric identification of in vivo nitrotyrosine sites in the human pituitary tumor proteome. Methods Mol Biol. 566:137-163 (2009).
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48. **Zhan X** *(corresponding author)*, Desiderio DM. Signal pathway networks mined from human pituitary adenoma proteomics data. BMC Medical Genomics, 3: 13 (2010).
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51. Zou W, **Zhan X,** Li M, Song Z, Liu C, Peng F, Guo Q. Identification of differentially expressed proteins in the spinal cord of neuropathic pain models with PKCgamma silence by proteomic analysis. Brain Res, 1440: 34-46 (2012).
52. Peng F, **Zhan X** *(corresponding author)*, Li M, Fang F, Li G, Li C, Zhang P, Chen Z. Proteomic and bioinformatics analyses of mouse liver microsomes. Int J Proteomics, 2012: 1-24 (2012). doi:10.1155/2012/832569.