

Curriculum Vitae

Name: Weidong Zhang

Position: Research Instructor

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Education

- 1996 Ph.D. Tongji Medical University, Wuhan, China
- 1993 MSc. Tongji Medical University, Wuhan, China
- 1988 M.D. Nanhua University of College of Medicine, Hunan, China

Positions and Employment

- 2005-todate: Research Instructor. Division of Allergy and Immunology, University of South Florida College of Medicine, Tampa, FL, USA
- 2001-2002: Associate Professor and Vice Director of Department of Pathogenic Biology, Tongji Medical College, Huazhong Science Technology University, Wuhan, China
- 1994-1999: Lecturer. Department of Microbiology, School of Basic Medical Sciences, Tongji Medical University, China
- 1988-1990: Junior Lecturer. Department of Microbiology and Immunology, Hengyang Medical University, China

Honors, Awards and Fellowship

- 2008 Travel grant recipient for 64th American Academy of Allergy Asthma & Immunology (AAAAI) Meeting; Philadelphia, PA
- 2007 Travel grant recipient for 63rd AAAAI Meeting; San Diego, CA
- 2007 AAAAI interest section FIT abstract award (Basic and Clinical Immunology Interest Section). 63rd AAAAI Meeting; San Diego, CA
- 2007 Member, American Institute of Biological Sciences Review Board
- 2006 Travel grant recipient for 62nd AAAAI Meeting; Miami, FL
- 2005 Superior Presentation, USF Health Science Center Research Day
- 2005 Travel grant recipient for 61st AAAAI Meeting; San Antonio, TX
- 2004 Superior Presentation, USF Health Science Center Research Day
- 2004 Travel grant recipient for 60th AAAAI Meeting; San Francisco, CA
- 2002-2005 Postdoctoral fellow. Division of Allergy and Immunology, Department of Internal Medicine, College of Medicine. USF, Tampa, FL, USA
- 2002 Gold Medal Award for outstanding young scientist. Huazhong Science and Technology University, China

- 2000-2001 Postdoctoral fellow. Saskatoon Cancer Center, Canada
- 1999-2000 Guest Scientist Scholarship. German Cancer Research Center, Heidelberg, Germany
- 1997 Outstanding Faculty Award, Tongji Medical University, China
- 1996 Outstanding Faculty Award in Teaching Art, Tongji Medical University, China
- 1994 The Second Prize for Natural Sciences (Microbiology Association, Hubei Province, China)
- 1991 Outstanding graduate Student Award for Research Performance. Tongji Medical University, China

Grant Support

- 2001 Dendritic cells based vaccine development. Outstanding Young Scientist Award, Huazhong Science and Technology University. (PI)
- 1994 Molecular epidemiological study of enteric Adenoviruses in clinical stool specimens using Digoxigenin labeled DNA probe. Tongji Medical College Science Foundation(PI)
- 2004 Anti-adenovirus using antisense oligos. Chinese Natural Sciences Foundation(Co-PI)

Patents (International/USA)

Vectors for Regulating Gene Expression;
 An Anti-viral treatment for Dengue virus infection;
 Prophylactic Antiviral and Immunomodulatory Therapy for Prevention of Respiratory Syncytial Virus Infection;

Professional Societies

American Academy of Allergy Asthma & Immunology (AAAAI);
 American society of Gene Therapy (ASGT);

Committee Appointment

2001-2002 Vice Chairman of Hubei Academy Society of Microbiology (Hubei Province, China);

Teaching Activities

2002, 9~present: Participant in the program for undergraduate college students, graduate students, and clinical fellow in Biologic science in the laboratory of Division of Allergy and Immunology;

2001, 3~2002, 6: Participant in the program for undergraduate college students and graduate students in Microbiology in Tongji Medical University, Hubei, China;
1994, 1~1999, 2: Participant in the program for undergraduate college students in Microbiology in Tongji Medical University, Hubei, China;
1988, 6~1990, 9: Participant in the program for undergraduate college students in Microbiology in Hengyang Medical College, Hunan, China;

Publications in Scientific Journals

1. Lee D, Zhang W., et al. Thiolated chitosan/DNA nanocomplexes exhibit enhanced and sustained gene delivery. *Pharm Res.* 2007; 24: 157
2. Kong X, Zhang W., et al. Respiratory syncytial virus infection in Fischer 344 rats is attenuated by short interfering RNA against the RSV-NS1 gene. *Genet Vaccines Ther.* 2007; 1:4
3. Zhang W., et al. Respiratory syncytial virus: immunopathology and control. *Expert Review of Clinical Immunology.* 2006, 1: 68
4. Zhang W., et al. Inhibition of respiratory syncytial virus infection with intranasal siRNA nanoparticles targeting the viral NS1 gene. *Nat Med.* 2005, 11: 56.
5. Zhang W., et al. Attenuation of dengue virus infection by Adeno-associated virus-mediated siRNA delivery. *Genet vaccines ther.* 2004; 2: 8
6. Hellermann G, Kong X, Gunnarsdottir J, San Juan H, Singam R, Behera S, Zhang W., et al. Mechanism of bronchoprotective effects of a novel natriuretic hormone peptide. *J Allergy Clin Immunol.* 2004;113:79
7. Zhang W., et al. Tumour necrosis factor-alpha (TNF-alpha) transgene-expressing dendritic cells (DCs) undergo augmented cellular maturation and induce more robust T-cell activation and anti-tumour immunity than DCs generated in recombinant TNF-alpha. *Immunology* 2003;108:177
8. Yu L, Zhang W., et al. Investigation of expression of sera IL-10 and IL-12 in the patients with autoimmune thyroid disorder. *Chin Clin Med.* 2003; 10: 13
9. Liu Y, Zhang W., et al. Engineered fusion hybrid vaccine of IL-4 gene-modified myeloma and relative mature dendritic cells enhances antitumor immunity. *Leuk Res.* 2002;26:757
10. Liu Y, Zhang X, Zhang W., et al. Adenovirus-mediated CD40 ligand gene-engineered dendritic cells elicit enhanced CD8 (+) cytotoxic T-cell activation and antitumor immunity. *Cancer Gene Ther.* 2002; 9:202

11. Zhang W., et al. TNF-alpha gene-modified dendritic cells act as more potent adjuvants for peptide delivery to induce specific antitumor immunity in mice. **Chin Med J.** 2002; 115:1767
12. Zhang W., et al. Differential expression of chemokine receptors in dendritic cells and enhancement of their migration by adenovirus-mediated TNF- α gene transfer. **U.S. Chin J Microbiol Immunol.** 2001;3:49
13. Zhang W., et al. Induction of Th1 immune response against tumor by genetically engineered fusion of tumor cells and dendritic cells. **Zhonghua Xue Ye Xue Za Zhi.** 2002; 23:61
14. Zhang W., et al. Construction of recombinant baculovirus with L1 gene and the formation of HPV4 virus-like particles in insect cells. **J Huazhong Univ Sci Technolog Med Sci.** 2002; 31:223
15. Liu Q, Yan J, Zhang W., et al. Inhibition of vascular endothelium apoptosis induced by H₂O₂ using hVEGF gene transfer. **Chin Pathophysiol.** 2002 ; 3 :
16. Zhang W., et al. Enhancing antitumor by immunization with fusion of dendritic cells and engineered tumor cells. **J Huazhong Univ. Sci Tech (Health Sci).** 2002 ; 22:1
17. Zhang W., et al. Development of multiplex polymerase chain reaction for the detection and differentiation of enteric adenoviruses in stool samples. **J Tongji Med Univ.** 2001; 22: 12
18. Liu Q, Zhang W., et al. The mechanical study of vascular endothelial growth factor on the prevention of restenosis after angioplasty. **J Tongji Med Univ.** 2001; 21: 195
19. Zhang W., et al. Enhancement of the expression of chemokine receptor CCR7 in Dendritic cells and their migration by TNF- α gene transfer. **J Huazhong Univ. Sci Tech (Health Sci).** 2002 ; 31:133
20. Liu Q, Lu Z, Zhang W., et al. The mechanical study of vascular endothelial growth factor on the prevention of restenosis after angioplasty. **Chin Arteriosclerosis** 2001; 9: 209
21. Liu Q, Zhang W., et al. Mechanism of vascular endothelial growth factor in prevention of restenosis after angioplasty. **US Chin J Angiocardiopathy** 2000; 2: 77
22. Liu Q, Lu Z, Zhang W., et al. Experimental study of adenovirus vector mediated-hVEGF165 gene on the prevention of restenosis after angioplasty. **Internat J Cardiov Med.** 2000; 2:147
23. Liu Q, Lu Z, Zhang W., et al. Construction and identification of recombinant adenovirus vector

- containing the h VEGF₁₆₅ gene. *J Tongji Med Univ.* 2000; 20:186
24. Liu Q, Yan J, Zhang W., et al. Cellular proliferation and secretion analysis of human vascular endothelium using hVEGF₁₆₅ gene transfer. *Zhonghua Xue Ye Xue Za Zhi.* 2000 ; 9 : 489
25. Zhang W., et al. Polymerase chain reaction technique for detection of Mycobacterium Tuberculosis Complex in clinical specimens and clinical application. *J Tongji Med Univ.* 1999; 5:378
26. Liu Q, Zhang W., et al. Construction and identification of recombinant adenovirus vector containing the hVEGF₁₆₅ gene. *J Mol Cardiol.* 1999; 1: 62
27. Zhang W., et al. Comparison of two methods for preparation of competent JM105 cells. *J Tongji Med Univ.* 1997 ; 5 : 360
28. Zhang W., et al. A study of cytopathic effect of Adenovirus type 41 (Tak Strain) on A549 cell line lacking E1 function of Adenovirus. *J Tongji Med Univ.* 1997 ; 1 : 26
29. Wang B, Zhang W., et al. The molecular epidemiological study of enteric Adenoviruses in clinical stool specimens using Digoxigenin labeled DNA probe. *Viol Sinica* 1996 ; Suppl. 23
30. Zhang W., et al. Cloning and characteristic analysis of Adenovirus type 40 probe. *J Tongji Med Univ.* 1996 ; 5 : 366
31. Zhang W., et al. Cloning and characterization of the probe for Adenovirus type 41. *Chin Microbiol and Immunol.* 1994 ; 2 : 76
32. Zhang W., et al. Molecular Biology of Enteric Adenoviruses. Review. *Guowai Med Prog.* 1993; 11: 21
33. Wu Y, Zhang W., et al. Identification of Ureaplasma Urealyticum in the patients with acute symptoms of urinary tract infection. *Chin Dermatol.* 1991 ; 4 : 251
34. Wu Y, Zhang W., et al. Isolation and identification of Urogenital Mycoplasma. *Hunan Microbiol Comm.* 1991 ; 1 : 32
35. Wu Y, Zhang W., et al. Diagnosis of Ureaplasma Urealyticum from the patients with

nongonococcal urethritis. *Hengyang Med College Acta* 1990 ; 4 : 323

Chapters in Books

1. Herpes Simplex Virus Infection and Immunology. Yang D and Ye S ed. Infection and Immunology. Hubei Scientific Tech. Publish Inc. 1998;
2. Human Cytomegalovirus Infection and Immunology. Yang D and Ye S ed. Infection and Immunology. Hubei Scientific Tech. Publish Inc. 1998;
3. STD. Li Y ed. Pathogen. Hubei Scientific Tech. Publish Inc. 1994;
4. English-Chinese Medical Dictionary. Public Health Publish Inc. 1991;

Published Teaching Materials

1. Liao L, Zhang W. Systemic model used in the experimental Microbiology. *Med and Society* 2002; 15: 143
2. Huang Q, Zhang W. Revolution of teaching in Medical Microbiology using novel design of the examination. *Med and Society* 2002; 15: 149

Abstracts and Papers Presented at Scientific Meetings

- 2008: Mechanism of Atrial Natriuretic Peptide Receptor (NPRA)-Medicated Induction of Tolerogenic Dendritic Cells. AAAAI 64th Annual Meeting. Philadelphia, PA (Oral Presentation)
- 2007: Natriuretic Peptides (NPs) Modulate Human Dendritic Cells by Altering SOCS3 Expression. AAAAI 63rd Annual Meeting, San Diego, CA (Oral Presentation)
- 2005: Prophylaxis of Respiratory Syncytial Virus infection with Intranasal siRNA-Nanoparticles of the NS1 Gene in vivo. AAAAI 61th Annual Meeting. San Antonio, TX. USA (Oral Presentation)
- 2005: Short Interference RNA for RSV-NS1 Gene Attenuates Virus infection in Fischer 344 Rats. AAAAI 61th Annual Meeting. San Antonio, TX. USA (poster)
- 2004: Antiviral and Immunomodulatory Role of siRNAs Targeting Respiratory Syncytial Virus NS1 Gene. AAAAI 60th Annual Meeting. San Francisco, CA. USA (Oral Presentation)
- 2004: Mechanism of Bronchoprotective Effects of a Novel Natriuretic Hormone Peptide. AAAAI 60th Annual Meeting. San Francisco, CA. USA (poster)
- 2004: Chitosan Nanoparticle-mediated de novo Synthesis of a Novel Natriuretic Hormone Peptide Reverses Established Asthma in Mice. AAAAI 60th Annual Meeting. San Francisco, CA. USA (poster)
- 2004: Chitosan Lipid nanoparticles (CLNs) Augment Gene Delivery and expression in Mice. Controlled Release Society 31th Annual Meeting Transactions;
- 2003: Development of Genetic Antiviral Strategies for Respiratory Syncytial Virus Infection. RSV

Symposium, Stone Mountain, GA, USA (Poster)

- 1996: Rapid Diagnosis and Type Identification of Enteric Adenoviruses. Hubei Microbiology Society and Academic Annual Meeting. Wuhan, Hubei. China;
- 1993: The Construction of Vector pACZ9202 with Adenovirus Type 40 Probe. The Third International Conference on Viral Diseases. Kunming, Yunnan of China.

Invited Lecture

- 2008 RSV and Innate Immunity (Workshop). AAAAI 64th American Academy of Allergy Asthma & Immunology (AAAAI) Meeting; Philadelphia, PA
- 1999 “The effect of adenovirus-mediated wild-type p53 expression on the growth of human hepatocellular carcinoma cell line” at King’s College of Medicine, London University