CURRICULUM VITAE
Xiaotian Wang, M.D.

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EDUCATION

Sep, 1979 – Aug, 1984 MD Nantong University (Formerly Nantong Medical College)

POSTGRADUATE TRAINING

Aug, 1984 – 1991 Residency Department of Obstetrics and Gynecology, Affiliated Hospital of Nantong University, Nantong, China
Aug, 1986 – Aug, 1987 Fellowship Department of Obstetrics and Gynecology, Peking Union College Hospital, Beijing, China

POSTGRADUATE HONORS AND AWARDS

2015 The First, Second and Third Place Poster Winner, the 1st Wound Care Symposium, Brown University
2013 Founders Award for Best Paper by a Member, New England Society of Plastic and Reconstructive Surgeons
2012 Award of Excellence in Translational Regenerative Science, Wound Healing Society
1994 Award to Teaching Excellency, Nantong Medical College
1989 Excellent Scientific Thesis Award, Nantong Science and Technology Commission

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Board Certification: 19983211032060261040202054 (China)
Licenses: 110320000011973 (China)

ACADEMIC APPOINTMENTS

Assistant Professor of Surgery (Research) Warren Alpert School of Medicine, Brown University, Providence, RI, May, 2012 – Present

Research Assistant Professor Boston University School of Medicine, Department of Surgery, Boston, MA, 2009 – 2011

Lecturer Department of Gynecology and Obstetrics, Nantong University, Nantong, China, 1994 – 2004

HOSPITAL APPOINTMENTS

Research Scientist Plastic Surgery, Rhode Island Hospital, Providence, RI
June, 2011 - Present

Research Associate Department of Surgery, Roger Williams Medical Center, Providence, RI
April, 2004 – April, 2011

Attending Physician Department of Gynecology and Obstetrics, Affiliated Hospital of Nantong University, Nantong, China
November, 2003 – April, 2004

Research Associate Department of Surgery, Roger Williams Medical Center, Providence, RI
August, 2002 – November, 2003

Research Associate Lahey Clinic Medical Center, Burlington, MA
May, 2001- August, 2002

Attending Physician Department of Gynecology and Obstetrics,
Affiliated Hospital of Nantong University, Nantong, China
August 1992 – April, 2000

OTHER PROFESSIONAL APPOINTMENTS

Reviewer Journal of Surgical Research March, 2019 – Present
Founder PAX THERAPEUTICS INC., formed in December, 2018

Chief Scientific Officer PAX THERAPEUTICS INC. December, 2018 – present
Reviewer Wound Repair and Regeneration 2012 – Present

HOSPITAL COMMITTEES

Member, Labor Union, Affiliated Hospital of Nantong University, Nantong, China 1995 - 2000
Chair, Labor Union, Department of Gynecology and Obstetrics, Affiliated Hospital of Nantong University, Nantong, China 1995 - 2000

MEMBERSHIP IN SOCIETIES

Member American Society of Gene & Cell Therapy (ASGCT), 2009 – Present
Member Tissue Engineering and Regenerative Medicine, 2005 - Present
Member Wound Healing Society (WHS), 2002 - Present
Member Chinese Society of Gynecology and Obstetrics, 1995 – Present
Member Chinese Medical Association, 1989 - Present

PUBLICATIONS LIST

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. **Wang XT**, McKeever CC, Vonu P, Patterson C, Liu PY. Dynamic Histological Events and Molecular Changes in Excisional Wound Healing of Diabetic Mice. *J Surg Res.* 2019; 238:186-197
2. Mao WF, Wu YF, Yang QQ, Zhou YL, **Wang XT,** Liu PY, Tang JB. Modulation of digital flexor tendon healing by vascular endothelial growth factor gene transfection in a chicken model. *Gene Ther*. 2017; 24:234-240
3. Tang JB, Wu YF, Cao Y, Chen CH, Zhou YL, Avanessian B, Shimada M, **Wang XT,** Liu PY. Basic FGF or VEGF gene therapy corrects insufficiency in the intrinsic healing capacity of tendons. *Sci Rep*. 2016; 6:20643
4. Tang JB, Zhou YL, Wu YF, Liu PY, **Wang XT.** Gene therapy strategies to improve strength and quality of flexor tendon healing. *Expert Opin Biol Ther*. 2016; 16:291-301

5. Wu YF, Mao WF, Zhou YL, **Wang XT,** Liu PY, Tang JB. Adeno-associated virus-2-mediated TGF-β1 microRNA transfection inhibits adhesion formation after digital flexor tendon injury. *Gene Ther*. 2016; 23:167-75

6. Bowden LG, Maini PK, Moulton DE, Tang JB, **Wang XT**, Liu PY, Byrne HM. An Ordinary Differential Equation Model for Full Thickness Wounds and the Effects of Diabetes. *J Theor Biol.* 2014; 361: 87-100

7. **Wang XT**, Avanessian B, Ma Q, Durfee H, Tang YQ, Liu PY. Enhancement of Flap Survival and Changes in Angiogenic Gene Expression after AAV2-Mediated VEGF Gene Transfer to Rat Ischemic Flaps. *Wound Repair Regen.* 2011; 19:498-504

8. Wu YF, Chen CH, Cao Y, Avanessian B, **Wang XT,** Tang JB. Molecular Events of Cellular Apoptosis and Proliferation in the Early Tendon Healing Period. *J Hand Surg Am.* 2010; 35:2-10

9. Liu PY, **Wang XT,** Xin KQ, Chen CH, Rieger-Christ K, Summerhayes IC, Wu YF, Tang JB. Application of AAV2-Mediated bFGF Gene Therapy on Survival of Ischemic Flaps: Effects of Timing of Gene Therapy. *Ann Plast Surg.* 2009; 62:87-91

10. Tang JB, Cao Y, Zhu B, Xin KQ, **Wang XT,** Liu PY. Adeno-Associated Virus-2-Mediated bFGF Gene Transfer to Digital Flexor Tendons Significantly Increases Healing Strength: An in vivo Study. *J Bone Joint Surg.* 2008; 90:1078-1089

11. **Wang XT**, Liu PY, Tang JB**.** Mizukami H, Xin KQ, Ozawa K, Ushijima H. Tendon Healing in vitro: Adeno-Associated Virus-2 Effectively Transduces Intrasynovial Tenocytes with Persistent Expression of the Transgene, but Other Serotypes Do Not. *Plast Reconstr Surg* 2007; 119:227-234

12. **Wang XT,** Liu PY, JB Tang. PDGF gene therapy enhances expression of VEGF and bFGF genes and activates the NF-kappaB gene in signal pathways in ischemic flaps**.** *Plast Reconstr Surg* 2006; 117:129-137

13. Zhu B, Cao Y, Xin KQ, **Wang XT,** Summerhayes IC, Liu PY, Tang JB. Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons and Comparison with Early-Stage Healing Responses of Injured Flexor Tendons. *J Hand Surg Am.* 2006; 31:1652-1660

14. **Wang XT,** Liu PY, Xin KQ, Tang JB. Tendon Healing in vitro: bFGF Gene Transfer to Tenocytes by Adeno-Associated Viral Vectors Promotes Expression of Collagen Genes. *J Hand Surg Am.* 2005; 30:1255-1261

15. **Wang XT,** Liu PY, Tang JB. Tendon Healing in vitro: Modification of Tenocytes with Exogenous Vascular Endothelial Growth Factor Gene Increases Expression of Transforming Growth Factor Beta but Minimally Affects Expression of Collagen Genes. *J Hand Surg AM.* 2005; 30:222-229

16. Liu PY, Liu K, **Wang XT,** Badiavas E, Rieger-Christ KM, Tang JB, Summerhayes IC. Efficacy of Combination Gene Therapy with Multiple Growth Factor cDNAs to Enhance Skin Flap Survival in A Rat Model. *DNA Cell Biology*. 2005; 24:751-757

17. Liu PY, **Wang XT,** Badiavas E, Rieger-Christ K, Tang JB, Summerhayes IC. Enhancement of Ischemic Flap Survival by Prefabrication with Transfer of Exogenous PDGF Gene. *J Reconstr Microsurg* 2005; 21:273-279

18. Liu PY, Tong W, Liu K, Han SH, **Wang XT,** Badiavas E, Rieger-Christ K, Summerhays I. Liposome-Mediated Transfer of Vascular Endothelial Growth Factor cDNA Augments Survival of Random-Pattern Skin Flaps in the Rat. *Wound Repair Regen* 2004; 12:80-85

19. **Wang XT**, Liu PY, Tang JB. Tendon Healing *in vitro*: Genetic Modification of Tenocytes with Exogenous PDGF Gene and Promotion of Collagen Gene Expression. *J Hand Surg Am.* 2004; 29:884-890

20. Tang JB**,** Xu Y, **Wang XT**. Tendon Healing in vitro: Activation of NIK, IKKalpha, IKKbeta, and NF-kappaB Genes in Signal Pathway and Proliferation of Tenocytes. *Plast Reconstr Surg.* 2004; 113:1703-1711

21. Tang JB, Xu Y, Ding F, **Wang XT**. Expression of Genes for Collagen Production and NF-kappaB Gene Activation of in vivo Healing Flexor Tendons. *J Hand Surg Am.* 2004; 29:564-570

22. Tang JB, Xu Y, Ding F, **Wang XT.** Tendon Healing in Vitro: Promotion of Collagen Gene Expression by bFGF with NF-kB Gene Activation. *J Hand Surg Am.* 2003; 28: 215-220

23. **Wang XT.** Outcomes of Cesarean Delivery in Relation to Fetal position: a Clinical Investigation. *J Nantong Med College* 1998; 18; 67-69

24. **Wang XT.** Investigation of Perinatal Asphyxia after Cesarean Delivery with Cephalic or Breech Presentation. *Medical J Communication* 1998; 12; 194-197

25. **Wang XT,** Huang CB, Fang YW. An Evaluation of Measurement of Venous and Intra-abdominal β-HCG on the Diagnosis of Ectopic Pregnancy. *Medical J Communication* 1997; 11; 225-226
26. Wang YQ, **Wang XT.** Human Gynecological Tumors in Elderly. *Medical J Communication* 1991; 7: 209-214
27. Wang YQ, **Wang XT.** Combined Surgical and Chemotherapy for Ovarian Carcinoma. *Practical J Gynecology Obstetrics* 1990; 29: 221-225

BOOKS AND BOOK CHAPTERS

Tang JB, Wu YF, Cao Y, Chen CH, **Wang XT,** Liu PY. Gene Therapy for Tendon Healing. In: Tang JB, Amadio PC, Guimberteau JC, Chang J, editors. *Tendon Surgery of the Hand.* Philadelphia: Elsevier; 2012. P59-70

OTHER NON-PEER REVIEWED PUBLICATIONS

Wang XT, Liu PY, Tang JB. PDGF Gene Therapy Enhances Expression of VEGF and bFGF Genes: Reply. *Plast Reconstr Surg* 2006; 117:820-821

ABSTRACTS

National Presentation

1. **Wang XT,** Mookerjee VG, Miklavcic W, Tang SYQ, Liu PY. Change of endogenous gene expression after VEGF gene therapy via AAV2 double-stranded vectors: an in vivo study. The 21st Annual Meeting of the American Society of Gene & Cell Therapy, Chicago, IL, May 16-19, 2018
2. **Wang XT,** Mookerjee VG, Miklavcic W, Tang SYQ, Liu PY. Investigation of endogenous gene expression changes after VEGF gene therapy via AAV2 double-stranded vectors: an in vivo study. Wound Healing Society 2018 Annual Meeting, Charlotte, NC, April 25-29, 2018
3. Mookerjee VG, **Wang XT**, Liu PY. Hyperbaric oxygen therapy outcomes analysis in chronic wounds. The Symposium on Advanced Wound Care, Charlotte, NC, April 25-29, 2018

4. Mookerjee VG, **Wang XT**, Raglow-Defranco M, Swartz S, Brea B, Ciombor D, Liu PY. Outcome analysis of hyperbaric oxygen therapy in diabetic wounds and related gene expression analysis. Wound Healing Society 2018 Annual Meeting, Charlotte, NC, April 25-29, 2018

5. **Wang XT,** Wu YF, ZhouYL, Tang JB, Liu PY. Investigation of machanism in increased healing tendon strength after vegf gene therapy via aav2 vectors. Wound Healing Society 2016 Annual Meeting, Atlanta, GA, April 13-17, 2016

6. **Wang XT,** Vonu P, Liu PY, Study of fibroblast-to-myofibroblast differentiation and tgfβ signaling pathway in diabetic mouse wounds. Wound Healing Society 2016 Annual Meeting, Atlanta, GA, April 13-17, 2016

7. **Wang XT,** Wu YF, ZhouYL, Tang JB, Liu PY. Investigation of the mechanism of increased healing tendon strength after bFGF or VEGF gene therapy by AAV2 Vectors. The 7th Joint Meeting of the European Tissue Repair Society & the Wound Healing Society, Copenhagen, Denmark, Oct 21-23, 2015.

8. **Wang XT,** Wu YF, Zhou YL, Tang JB, Liu PY. bFGF or VEGF gene transfer via AAV2 vectors to the tendon activates multiple genes critical to tendon growth and regeneration: An in vivo study. The 18th Annual Meeting of the American Society of Gene & Cell Therapy, New Orleans, LA, May 13-16, 2015

9. Zhou YL, Zhang LZ, Wu YF, **Wang XT,** Liu PY, Tang JB. Delivery of Micro-RNA loaded plasmid through nanoparticles efficiently modulate transforming growth factor-beta1 expression in healing flexor tendons: an in vitro and in vivo study. The 18th Annual Meeting of the American Society of Gene & Cell Therapy. New Orleans, LA, May 13-16, 2015.

10. Zhou YL, Zhang LZ, Wu YF, **Wang XT,** Liu PY, Tang JB. Engineered micro-RNA loaded plasmid-nanospheres efficiently modulate transforming growth factor-beta1 expression in healing intrasynovial tendons: an in vitro and in vivo study. The 27th Annual Meeting of the Wound Healing Society. San Antonio, Texas, April 29-May 3, 2015

11. **Wang XT,** Wu YF, Zhou YL, Tang JB, Liu PY. Delivery of bFGF or VEGF gene to healing tendon activates multiple genes critical to tendon growth and regeneration: an in vivo study. The 27th Annual Meeting of the Wound Healing Society. San Antonio, Texas, April 29-May 3, 2015

12. Zhou YL, Zhang LZ, Wu YF, **Wang XT,** Liu PY, Tang JB. Engineered MicroRNA-based RNAi Plasmid Delivered through Nanoparticles to Intrasynovial Tendons: Effective Modulation of Gene Expression and Tissue Reactions. The 17th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, DC, May 21-24, 2014

13. Zhou YL, Zhang LZ, Wu YF, **Wang XT,** Liu PY, Tang JB. Nanoparticles Loaded with Engineered MicroRNA-based RNAi Plasmid Delivered to the Tendons Prevents Adhesion Formations after Tendon Repair. The 17th Annual Meeting of the American Society of Gene & Cell Therapy, Washington, DC, May 21-24, 2014
14. Zhou YL, Wu YF, **Wang XT,** Liu PY, Tang JB. Nanoparticles-engineered TGF-β1 miRNA Plasmid Complexes Delivered to the Tendons Prevents Adhesion Formations after Tendon Repair. The 24th Annual Meeting of the Wound Healing Society, Orlando, FL, April 23-27, 2014
15. Wu YF, Zhou YL, **Wang XT,** Liu PY, Tang JB. Effective and Sustained Delivery of Exogenous Genes to Intrasynovial Tendons through Nanoparticles and Minimal Tendon Reactions to Nanoparticle/Plasmid Complexes: in vitro and in vivo Studies. The 24th Annual Meeting of the Wound Healing Society, Orlando, FL, April 23-27, 2014
16. Wu YF, Zhou YL, McKeever C, **Wang XT**, Liu PY, Tang JB. Relationship of tendon gliding mechanics and cellular apoptosis in adhesions and the adhesion-tendon gliding interface. The 99th Clinical Congress of American College of Surgeons, Washington DC, Oct 6-9, 2013
17. **Wang XT,** McKeever CC, Patterson C, Liu PY. Changes in Molecular Profiles Associated with Wound Contractions and Closure during Excisional Wound Healing in Diabetic Mice. The 23rd Annual Meeting of the Wound Healing Society, Denver, CO, May 1-5, 2013
18. McKeever CC, **Wang XT,** Tang JB, Liu PY. Temporal Changes in Epithelialization and Dermis in Healing Diabetic and Non-Diabetic Wounds: Quantitative Analysis Using a Genetically Modified Mouse Model. The 23rd Annual Meeting of the Wound Healing Society, Denver, CO, May 1-5, 2013
19. **Wang XT,** McKeever CC, Patterson C, Liu PY. Analyzing the Wound Healing Deficit in Diabetic Mice. The 92nd Annual Meeting of American Association of Plastic Surgeons, New Orleans, LA, April 20-23, 2013
20. Wu YF, Zhou YL, **Wang XT,** Liu PY, Tang JB. Temporal changes of cellular apoptosis in the healing intrasynovial tendons and adhesions at tendon gliding interface: novel 3-dimentional analysis. The 98th Clinical Congress of American College of Surgeons. Chicago, IL, September 30-Oct 4, 2012
21. Wu YF, Zhou YL, **Wang XT,** PY Liu, Tang JB. Changes in apoptosis and proliferation of the tenocytes after AAV2-VEGF gene therapy: an in vivo study using a chicken tendon injury model. Annual Meeting of The Federation of European Societies for Surgery of the Hand (FESSH), Antwerp, Belgium, June 20-23, 2012.
22. Chen CH, Wu YF, Avanessian B, **Wang XT**, Liu PY, Tang JB. An investigation of transfection efficiency and temporal expression of transgene in injured tendons. Annual

Meeting of The Federation of European Societies for Surgery of the Hand (FESSH), Antwerp, Belgium, June 20-23, 2012.

23. Wu YF, **Wang XT,** Liu PY, Tang JB. Cellular Apoptosis and Proliferation in the Healing Intrasynovial Tendons: Temporal Changes and Novel 3-Dimentional Analysis. The 22nd Annual Meeting of the Wound Healing Society, Atlanta, GA, April 19-22, 2012

24. Zhou YL, Wu YF, **Wang XT,** Liu PY, Tang JB. Significant Decreases of the Type I Collagen in the Healing Digital Flexor Tendon and the Effect of AAV2-VEGF Gene Therapy to Reverse the Decrease of Collagen Production: An in vivo Study. The 22nd Annual Meeting of the Wound Healing Society, Atlanta, GA, April 19-22, 2012

25. **Wang XT,** Avanessian B, Ma QZ, Durfee H, Tang YQ, Liu PY. Comparison of AAV-DS-VEGF and AAV-SS-VEGF: Efficacy of in vitro Transgene Expression and in vivo Ischemic Flap Survival. The 56th Annual Meeting of the Plastic Surgery Research Council, Louisville, KY, April 28-30, 2011

26. **Wang XT,** Avanessian B, Ma QZ, Durfee H, Tang YQ, Liu PY. Comparison of AAV-DS-VEGF and AAV-SS-VEGF: Efficacy of in vitro Transgene Expression and in vivo Ischemic Flap Survival. The 21st Annual Meeting of the Wound Healing Society, Dallas, TX, April 14-17, 2011

27. Chen CH, Zhou YL, Wu YF, **Wang XT,** Liu PY, Tang JB. Changes of Gene Expression Profiles Relevant to Tenocyte Apoptosis after in vitro Wounding: A Study Using a Novel Array Technique. The 21th Annual Meeting of the Wound Healing Society, Dallas, TX, April 14-17, 2011

28. Wu YF, Zhou YL, **Wang XT,** Liu PY, Tang JB. Changes in Tenocyte Proliferation and Tenocyte Apoptosis in the Tendons Treated with AAV2-bFGF in the Early Healing Period. The 21th Annual Meeting of the Wound Healing Society, Dallas, TX, April 14-17, 2011

29. Cao Y, Wu YF, Chen CH, **Wang XT,** Liu PY, Tang JB. Comparison of Efficiency of AAV2-VEGF and AAV2-bFGF Gene Therapy in Enhancement of Healing Strength of Injured Tendons: An in vivo Biomechanical and Molecular Study. The 11th Congress of International Federation of Societies for Surgery of the Hand (IFSSH), Seoul, Korea, October 31–November 4, 2010

30. **Wang XT,** Avanessian B, Ma QZ, Durfee H, Liu PY. Enhancement of Flap Survival and Changes of Angiogenic Gene Expression after AAV2-mediated VEGF Gene Transfer to Rat Ischemic Flaps. The 2nd Congress of European Plastic Surgery Research Council, Hamburg, Germany, August 26-29, 2010.

31. Wu YF, Chen CH, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of AAV2-VEGF Gene Delivery to Enhance Strength of Injured Tendons: An *in vivo* Study.

The 2nd Congress of European Plastic Surgery Research Council, Hamburg, Germany, August 26-29, 2010.

32. Chen CH, Wu YF, Cao Y, Avanessian B, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of Gene Delivery Methods and Time-course of Transgene Expression in Injured Tendons and Tissue Reactions Caused by Different Vectors. The 2nd Congress of European Plastic Surgery Research Council, Hamburg, Germany, August 26-29, 2010.

33. **Wang XT,** Avanessian B, Chen CH, Wu YF, Tang JB, Liu PY. Comparison of Efficacy of Prefabrication of the Ischemic Flaps with AAV2-Mediated VEGF and bFGF Gene Therapy. NIH, NCRR Third Biennial National IdeA Symposium of Biomedical Research Excellence (NISBRE), Bethesda, MD, June 16-18, 2010

34. Wu YF, Chen CH, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of AAV2-VEGF Gene Delivery to Enhance Strength of Injured Tendons: An *in vivo* Study. NIH, NCRR Third Biennial National IdeA Symposium of Biomedical Research Excellence (NISBRE), Bethesda, MD, June 16-18, 2010

35. **Wang XT,** Durfee H, Tang JB, Liu PY. Angiogenesic Gene Expression in Rat Ischemic Skin Flaps after AAV2-VEGF Gene Therapy. The 20th Annual Meeting of the Wound Healing Society, Orlando, FL, April 17-20, 2010

36. Wu YF, Chen CH, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of AAV2-VEGF Gene Delivery to Enhance Strength of Injured Tendons: An *in vivo* Study. The 20th Annual Meeting of the Wound Healing Society, Orlando, FL, April 17-20, 2010

37. Wu YF, Chen CH, Zhou YL, Cao Y, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of AAV2-VEGF and AAV2-bFGF Gene Delivery to Enhance Strength of Injured Tendons: An in vivo Study. The 89th Annual Meeting and Symposium of American Association of Plastic Surgeons, San Antonia, TX, March 20-23, 2010

38. **Wang XT,** Avanessian B, Chen CH, Wu YF, Tang JB, Liu PY. Comparison of Efficacy of Prefabrication of the Ischemic Flaps with AAV2-Mediated VEGF and bFGF Gene Therapy. The 12th Annual Meeting of American Society of Gene Therapy, San Diego, CA, May 27-30, 2009

39. Chen CH, Wu YF, Avanessian B, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of Gene Delivery Methods and Time-course of Transgene Expression in Injured Tendons and Tissue Reactions Caused by Different Vectors. The 12th Annual Meeting of American Society of Gene Therapy, San Diego, CA, May 27-30, 2009

40. Tang JB, Cao Y, Chen CH, Wu YF, **Wang XT,** Liu PY. Transgene Expression over a Prolonged Observation Period after bFGF Gene Therapy to Promote Healing of Injured Flexor Tendons. The 12th Annual Meeting of American Society of Gene Therapy, San Diego, CA, May 27-30, 2009

41. **Wang XT,** Avanessian B, Wang XT, Chen CH, Wu YF, Tang JB, Liu PY. Comparison of Efficacy of Prefabrication of the Ischemic Flaps with AAV2-Mediated VEGF and bFGF Gene Therapy. The 54nd Annual Meeting of Plastic Surgery Research Council, Pittsburgh, PA, May 27-30, 2009

42. Wang XT, Avanessian B, Chen CH, Wu YF, **Tang JB,** Liu PY. Comparison of efficacy of prefabrication of the ischemic flaps with AAV2-mediated VEGF and bFGF gene therapy. The 19th Annual Meeting of Wound Healing Society, Dallas, TX, April 25-29, 2009

43. **Wang XT,** Avanessian B, Tang JB, Liu PY. The Role of Ginsenoside Rg_1 in Augmenting Survival of the Ischemic Skin Flap: in vitro Studies of Cell Proliferation and Tube Formaion and in vivo Effects. The 19th Annual Meeting of Wound Healing Society, Dallas, TX, April 25-29, 2009

44. Tang JB, Wu YF, Chen CH, Avanessian B, **Wang XT,** Liu PY. Molecular Events of Cellular Apoptosis and Proliferation in the Early Tendon Healing Period. The 19th Annual Meeting of Wound Healing Society, Dallas, TX, April 25-29, 2009

45. Chen CH, Wu YF, Cao Y, Avanessian B, **Wang XT,** Liu PY, Tang JB. An Investigation of Efficiency of Gene Delivery Methods and Time-course of Transgene Expression in Injured Tendons and Tissue Reactions Caused by Different Vectors. The 19th Annual Meeting of Wound Healing Society, Dallas, TX, April 25-29, 2009

46. **Wang XT,** Avanessian B, Chen CH, Wu YF, Tang JB, Liu PY. The role of Ginsenoside Rg_1 in Augmenting Survival of the Ischemic Skin Flap: in vitro Studies of Cell Proliferation and Tube Formation and in vivo Effects. The 88th Annual Meeting and Symposium of American Association of Plastic Surgeons, Rancho Mirage, CA, March 21-25, 2009

47. **Wang XT,** Bais AJ, Gao JS, Tang JB, Liu PY. Expression Profile of Gene in the TGF-beta Signal Pathway in Diabetic Wounds: An in vitro Study on fibroblasts of Diabetic Mice. The 94th Clinical Congress of American College of Surgeons. San Francisco, CA, October 12-16, 2008

48. Chen CH, Wu YF, Cao Y, Gao JS, **Wang XT,** Tang JB. Quantitative Analysis of Gene Expression and Immunohistochemical Staining of Growth Factors at Different Stages of Tendon Healing. The 94th Clinical Congress of American College of Surgeons. San Francisco, CA, October 12-16, 2008

49. Tang JB, Cao Y, Zhu B, Xin KQ, **Wang XT,** Liu P. bFGF Gene Transfer by Adeno-Associated Viral 2 Vectors Decreases Work of Active Digital Flexion and Adhesion Formation: An *in vivo* Study up to End Tendon Healing Stage. The 11th Annual Meeting of American Society of Gene Therapy, Boston, MA, May 28-June 1, 2008

50. **Wang XT,** Bais AJ, Gao JS, Tang JB, Liu PY. Decreased Expression of Type I TGF-Beta Receptors in Db/Db Mice. The 18th Annual Meeting of Wound Healing Society, San Diego, CA, April 24-27, 2008

51. Chen CH, Tang JB, Wu YF, Cao Y, Gao JS, **Wang XT,** Liu PY. Quantitative Analysis of Gene Expression and Immunohistological Staining of Growth Factors at Different Stages of Tendon Healing. The 18th Annual Meeting of Wound Healing Society, San Diego, CA, April 24-27, 2008

52. Cao Y, Chen CH, Wu YF, Gao JS, **Wang XT,** Liu PY, Tang JB. Transgene Expression over a Prolonged Observation Period after bFGF Gene Therapy to Promote Healing of Injured Flexor Tendons. The 18th Annual Meeting of Wound Healing Society, San Diego, CA, April 24-27, 2008

53. **Wang XT,** Ma QZ, Tang JB, Liu PY. Production of AAV2-VEGF: in vitro Kinetics. The 18th Annual Meeting of Wound Healing Society, San Diego, CA, April 24-27, 2008

54. **Wang XT,** Liu PY, Gao JS, Tang JB. A-SMA Gene Expression and Contractile Ability of Skin Fibroblasts from Diabetic Mice: Correlation with Wound Closure Rates in vivo and Implications in Wound Healing. The 93rd Clinical Congress of American College of Surgeons, New Orleans, LA, October 7-11, 2007

55. Liu PY, **Wang XT,** Chen CH, Summerhayes IC, Tang JB. Application of AAV2-Mediated bFGF Gene Therapy on Survival of Ischemic Flaps: Effects of Timing of Gene Transfer. The 93rd Clinical Congress of American College of Surgeons, New Orleans, LA, October 7-11, 2007

56. Cao Y, Zhu B, Xin KQ, **Wang XT,** Liu P, Tang JB**.** bFGF Gene Transfer by Adeno-Associated Viral 2 Vectors Decreases Work of Active Digital Flexion and Adhesion Formation: An *in vivo* Study up to End Tendon Healing Stage. The 93rd Clinical Congress of American College of Surgeons, New Orleans, LA, October 7-11, 2007

57. **Wang XT,** Bais AJ, Gao JS, Tang JB, Liu PY. A-SMA Gene Expression and Contractile Ability of Skin Fibroblasts from Diabetic Mice: Correlation with *in vivo* Wound Closure Rates. The 52nd Annual Meeting of Plastic Surgery Research Council, Stanford, CA, June 20-23, 2007

58. Liu PY, Cao Y, Zhu B, Xin KQ, **Wang XT,** Tang JB. bFGF Gene Transfer by Adeno-Associated Viral 2 Vector Decreases Work of Digital Flexion and Adhesion Formation: An in vivo Study up to End Tendon Healing Stage. The 52nd Annual Meeting of Plastic Surgery Research Council, Stanford, CA, June 20-23, 2007

59. Cao Y, Zhu B, Xin KQ, **Wang XT,** Liu PY, Tang JB. bFGF Gene Transfer By Adeno-Associated Viral 2 Vectors Decreases Work of Active Digital Flexion and Adhesion Formation: An *in vivo* study up to end tendon healing stage. The 17th Annual Meeting of Wound Healing Society, Tampa, FL, April 28 – May 1, 2007

60. Su XQ, Cao Y, **Wang XT,** Liu PY, Tang JB. Expression Profiles of Genes of Multiple Growth Factors, Type I and III Collagen, and ND-κB of Early Stage healing Flexor Tendons. The 17th Annual Meeting of Wound Healing Society, Tampa, FL, April 28 – May 1, 2007

61. **Wang XT,** Tang JB, Liu PY. Expression of the A-SMA Gene and Contractile Ability of Skin Fibroblasts from Diabetic Mice: Correlation with Wound Closure Rates in vivo and Implications in Wound Healing. The 17th Annual Meeting of Wound Healing Society, Tampa, FL, April 28 – May 1, 2007

62. Liu PY, Cao Y, Zhu B, Xin KQ, **Wang XT,** Tang JB. Biomechanical and Histological Evaluation of Effectiveness of bFGF Gene Therapy at Multiple Time-points during Early Healing Period of Injured Flexor Tendon. The 17th Annual Meeting of Wound Healing Society, Tampa, FL, April 28 – May 1, 2007

63. **Wang XT,** Liu PY, Tang JB. Application of AAV2-Mediated bFGF Gene Therapy on Survival of Ischemic Flaps: Effects of Timing of Gene Transfer. The 17th Annual Meeting of Wound Healing Society, Tampa, FL, April 28 – May 1, 2007

64. Zhu B, Cao Y, **Wang XT,** Summerhayes I, Xin KQ, Liu PY, Tang JB. Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons and Comparison with Early Stage Healing Responses of Injured Flexor Tendons. The 10th Congress of International Federation of Societies for Surgery of the Hand, Sydney, Australia, March 11-15, 2007

65. Zhu B, Cao Y, Xin KQ, **Wang XT**, Summerhayes IC, Liu PY, Tang JB. Comparison of Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons with Early-Stage Healing Responses of Injured Flexor Tendons. The 10th Congress of International Federation of Societies for Surgery of the Hand, Sydney, Australia, March 11-15, 2007

66. Tang JB, Cao Y, Xie RG, Xin KQ, **Wang XT,** Liu PY. Adeno-Associated Virus-2 Mediated bFGF Gene Transfer to Digital Flexor Tendon Significantly Increases Healing Strength: An *in vivo* Study. The 92nd Annual Clinical Congress of American College of Surgeons, Chicago, IL, October 8-12, 2006.

67. Zhu B, Cao Y, **Wang XT,** Summerhayes I, Xin KQ, Liu PY, Tang JB. Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons and Comparison with Early Stage Healing Responses of Injured Flexor Tendons. The 9th Annual Meeting of American Society of Gene Therapy, Baltimore, MD, May 31-June 4, 2006

68. **Wang XT**, Liu PY, Tang JB. PDGF Gene Therapy Enhances Expression of VEGF and bFGF Genes and Activates the NF-κB Gene in Signal Pathways in Ischemic Flaps. The 51th Annual Meeting of Plastic Research Council, Dana Point, CA, May 17-20, 2006

69. Liu PY, **Wang XT,** Tang JB. Adeno-Associated Viral-2 but Not Other Serotypes Effectively Transduces Intrasynovial Tenocytes with Persistent Expression of the Transgene. The 51th Annual Meeting of Plastic Research Council, Dana Point, CA, May 17-20, 2006

70. Tang JB, Cao Y, Xie RG, Xin KQ, **Wang XT,** Liu PY. bFGF Gene Therapy through Adeno-Associated Viral Vectors to Digital Flexor Tendon Significantly Increases Healing Strength: An *in vivo* Study. The 51th Annual Meeting of Plastic Research Council, Dana Point, CA, May 17-20, 2006

71. Zhu B, Cao Y, **Wang XT,** Summerhayes I, Xin KQ, Liu PY, Tang JB. Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons and Comparison with Early Stage Healing Responses of Injured Flexor Tendons. The 51th Annual Meeting of the Plastic Research Council, Dana Point, CA, May 17-20, 2006

72. **Wang XT,** Liu PY, Tang JB. PDGF Gene Therapy Enhances Expression of VEGF and bFGF Genes and Activates the NF-κB Gene in Signal Pathways in Ischemic Flaps. The 16th Annual Meeting of the Wound Healing Society, Scottsdale, AZ, May 14-17, 2006

73. Tang JB, Zhu B, Cao Y, **Wang XT,** Summerhayes I, Xin KQ, Liu PY. Tissue Reactions of Adenoviral, Adeno-Associated Viral, and Liposome-Plasmid Vectors in Tendons and Comparison with Early Stage Healing Responses of Injured Flexor Tendons. The 16th Annual Meeting of the Wound Healing Society, Scottsdale, AZ, May 14-17, 2006

74. **Wang XT,** Liu PY, Xin KQ, Tang JB. Tendon Healing in vitro: bFGF Gene Transfer to Intrasynovial Tenocytes by Adeno-Associated Viral 2 Vectors Promotes Expression of Collagen Genes. The 16th Annual Meeting of the Wound Healing Society, Scottsdale, AZ, May 14-17, 2006

75. Cao Y, Xie RG, Xin KQ, **Wang XT**, Liu PY, Tang JB. Adeno-Associated Virus-2 Mediated bFGF Gene Transfer to Digital Flexor Tendon Significantly Increases Healing Strength: An *in vivo* Study. The 16th Annual Meeting of the Wound Healing Society, Scottsdale, AZ, May 14-17, 2006

76. Ke ZS, Cao Y, Zhu B, Xie RG, **Wang XT,** Liu PY, Tang JB. Expression of Growth Factor Genes and Activation of Signaling Pathway Genes in Healing Flexor Tendon Wounds and Associated Adhesions. The 16th Annual Meeting of the Wound Healing Society, Scottsdale, AZ, May 14-17, 2006

77. Tang JB, Cao Y, Xie RG, Xin KQ, **Wang XT,** Liu PY. Adeno-Associated Virus-2 Mediated bFGF Gene Transfer to Digital Flexor Tendon Significantly Increases Healing Strength: An *in vivo* Study. Regenerate World Congress on Tissue Engineering

& Regenerative Medicine (The 1st TERMIS World Congress), Pittsburgh, PA, April 25 – 27, 2006

78. Tang JB, **Wang XT,** Liu PY. Tendon Healing in vitro: Adeno-Associated Viral-2 but Not Other Serotypes Effectively Transduces Intrasynovial Tenocytes with Persistent Expression of the Transgene. The 8th Annual Meeting of the American Society of Gene Therapy, St. Louis, MO, June 1-5, 2005

79. Liu PY, Liu K, **Wang XT,** Badiavas E, Rieger-Christ KM, Tang JB, Summerhayes IC. Efficacy of Combination Gene Therapy with Multiple Growth Factor cDNA to Enhance Skin Flap Survival in a Rat Flap. The 8th Annual Meeting of the American Society of Gene Therapy, St. Louis, MO, June1-5, 2005

80. **Wang XT,** Liu PY, Tang JB. Tendon Healing in vitro: Modification of Tenocytes with Exogenous Vascular Endothelial Growth Factor Gene Increases Expression of Transforming Growth Factor Beta but Minimally Affects Expression of Collagen Genes. The 8th Annual Meeting of the American Society of Gene Therapy, St. Louis, MO, June 1-5, 2005

81. Tang JB, Wang XT, Liu PY. Application of Gene Therapy to Tendon Healing: Modification of Tenocytes with Exogeneous PDGF and VEGF to promote Collagen Production. The 15th Annual Meeting of the Wound Healing Society, Chicago, IL, May 18-21, 2005

82. Liu PY, Liu K, **Wang XT,** Badiavas E, Rieger-Christ KM, Tang JB, Summerhayes IC. Efficacy of Combination Gene Therapy with Multiple Growth Factor cDNA to Enhance Skin Flap Survival in a Rat Flap. The 21st Annual Meeting of the American Society for Reconstructive Microsurgery, Fajardo, Puerto Rico, January 15-18, 2005

83. Tang JB, Liu P, **Wang XT.** Tendon Healing in vitro: Genetic Modification of Tenocytes by Exogenous PDGF Gene Enhances Expression of Collagen Genes. The 9th Congress of the International Federation of Societies for Surgery of the Hand, Budapest, Hungary, June 13-17, 2004

84. Liu PY, **Wang XT,** Ponte C, Tang JB, Badiavas EV. Persistence and Expression of Seeded Marrow Cells in Dermal Substrate. The 14th Annual Meeting of the Wound Healing Society, Atlanta, GA, May 23-26, 2004

85. Liu PY, **Wang XT,** Badiavas EV, Summerhayes IC. Flap Prefabrication with Combination Gene Therapy using cDNA for VEGF 165, PDGF, and bFGF. The 13th Annual Meeting of the Wound Healing Society, Seattle, WA, May 4-7, 2003

86. Liu P, Liu K, **Wang XT**, Riger-Christ K, Summerhayes IC. Enhancement of Survival of Ischemic Wounds by Transfer of PDGF cDNA. 2002 Annual Meeting of the Wound Healing Society, Baltimore, MD, May 28 – June 1, 2002

Regional Presentation

1. Mookerjee VG, **Wang XT**, Liu PY. Hyperbaric Oxygen Therapy in Diabetic Wounds: Outcomes and Related Gene Expression Analysis. The New England Society of Plastic and Reconstructive Surgeons 2018 Annual Meeting. Manchester Village, VT, June 8-10, 2018
2. Liu PY, **Wang XT,** McKeever CC, Patterson C, Tang JB. Changes in Molecular Profiles and Morphological Characteristics Associated with Wound Contraction and Closure of the Wound Healing in Diabetic Mice. The 54th Annual Meeting of New England Society of Plastic and Reconstructive Surgeons, Newport, RI, May 31- June 2, 2013
3. **Wang XT,** Avanessian B, Chen CH, Wu YF, Tang JB, Liu PY. Comparison of Efficacy of Prefabrication of the Ischemic Flaps with AAV2-Mediated VEGF and bFGF Gene Therapy. The 2nd Annual Rhode Island Research Alliance Symposium, Providence, RI, October 2, 2009
4. **Wang XT,** Avanessian, B, Tang JB, Liu PY. The Role of Ginsenoside Rg_1 in Augmenting Survival of the Ischemic Skin Flap: in vitro Studies of Cell Proliferation and Tube Formation and in vivo Effects. The 2nd Annual Rhode Island Research Alliance Symposium, Providence, RI, October 2, 2009
5. Liu PY**, Wang XT,** Ma QZ, Bais AJ. Development of AAV2-VEGF for gene therapy- In vitro kinetics of gene expression. The 89th Annual Meeting of New England Surgical Society, Boston, MA, September 26-28, 2008
6. Liu PY, Liu K, **Wang XT,** Badiavas E, Rieger-Christ KM, Tang JB, Summerhayes IC. Efficacy of Combination Gene Therapy with Multiple Growth Factor cDNA to Enhance Skin Flap Survival in a Rat Flap. The 85th Annual Meeting of the New England Surgical Society, Montréal, Quebec, Canada, October 1-3, 2004

GRANTS

1. 2008. 5 – 2011. 4 Augmenting Ischemic Skin Flap Survival Using AAV-FGF2 and AAV-VEGF 165. NIH/COBRE Project, NIH/NCRR Grant #2P20RR018757, co-investigator
2. 2005. 10 – 2006. 9: $ 4,000 Marrow Stem Cells with Skin Substitutes for Diabetic Wounds. Plastic Surgery Educational Foundation #BRG74-05, PI
3. 2004. 1 – 2004. 12: $10,000 Genetically Modified Marrow Stem Cells with Artificial Skin for Diabetic Wounds. The Rhode Island Foundation #20040193, PI

UNIVERSITY TEACHING ROLES

2004. 1 – 2004. 4 Gynecology and obstetrics courses: 190 students, Nantong University, Nantong, China

1998. 9 – 1999. 1 Gynecology and obstetrics courses: 150 students, Nantong University, Nantong, China

1994. 2 – 1994. 7 Gynecology and obstetrics courses: 150 students, Nantong University, Nantong, China

1991. 2 – 1991.7 Gynecology and obstetrics courses: 60 students, Nantong University, China

HOSPITAL TEACHING ROLES

2011 – Present Training of animal surgery, Lab techniques, presentation preparation and manuscript drafting: 4 undergrads, 7 medical school students, Rhode Island Hospital, Providence, RI

2008 – 2010 Training of animal surgery and Lab techniques: 2 undergrads, 1 medical school student, Roger Williams Medical Center, Providence, RI

1992 – 1999 Resident clinical teaching courses (gynecology & obstetrics): 7-8 residents/year, Affiliated Hospital of Nantong University, Nantong, China

1992 Resident clinical training courses (obstetrics): 10-15 residents, Affiliated Hospital of Nantong University, Nantong, China

1989 – 1999 clinical teaching courses (gynecology & obstetrics): 15-50 interns, Affiliated Hospital of Nantong University, Nantong, China