11-23-2012

CURRICULUM VITAE

LEI WEI

Warren Alpert Medical School of Brown University/Rhode Island Hospital
Department of Orthopaedics
Division of Orthopaedic Research
CORO West, Suite 402,
1 Hoppin Street, Providence, RI 02903
Business Telephone Number: 401-793-8384
Business Fax Number: 401-444-6140
Electronic Mail Address: Lei_Wei@brown.edu

EDUCATION:

Medical School: Guiyang Medical College, China, 10/1978-08/1983, Medicine, M.D.

Other Advanced Degrees: Karolinska Institute, Stockholm, Sweden, 09/1994-05/1999, Ph.D.

POSTGRADUATE TRAINING:

09/1983-08/1988: Residency, Dept. of Orthopedics, Affiliated Hospital of Guiyang Medical College, China

06/1999-08/03: Postdoc. Fellowship, Departments of Orthopaedics & Rehabilitation, and Cellular & Molecular Physiology, The Pennsylvania State University College of Medicine Hershey, PA.

POSTGRADUATE HONORS AND AWARDS:

Visiting Scholarship, China Government Education foundation (1994-1995).

Research Fellowship, Shrine Hospital for Children , USA (12/1999-8/2001).

New Investigator Recognition Awards, Orthopaedic Research Society (2001)

Young Investigator Award, Osteoarthritis Research Society International (OARSI) (2002)

Young Investigator Award, Osteoarthritis Research Society International (OARSI) (2005)

Young Investigator Award Winner, NIH 2nd Biennial National IDeA Symposium of Biomedical research Excellence (NISBRE). August 6-8, 2008, Washington DC

Webster Jee Travel Awards. International Conference on Osteoporosis and Bone Research (ICOBR). Oct. 22-25, 2008 in Beijing, China.

Best Paper Award on 2008 International Conference on Osteoporosis and Bone Research Oct. 22-25, 2008 in Beijing, China.

The Grace Haussner Memorial Fellow of the Arthritis National Research Foundation (2010).

Chinese Orthopaedic Association Zhao Yisu basic science Awards on The Fifth International Congress of Chinese Orthopaedic Association (COA) on November 11-14, 2010, Pride International Convention Centre, Chengdu, China

ACADEMIC APPOINTMENTS

09/1988-08/1994: Researcher / Lecturer, Dept. of Orthopedics, Guiyang Medical College, China

09/03-present: Research Scientist, Dept. of Orthopedics, Rhode Island Hospital.

07/03-06/11: Assistant Professor, Dept. of Orthopedics, Brown Medical School/Rhode Island Hospital.

07/01/11-present: Associate Professor and director for Cartilage development and degeneration, Dept. of Orthopedics, Brown Medical School/Rhode Island Hospital.

07/01/11-present: Associate Program Director of imaging and molecular biology core / center for biomedical research excellence in skeletal health and repair

OTHER APPOINTMENTS AND PUBLIC SERVICE

Moderator
Moderator for 55th ORS meeting in Las Vegas, Nevada 2009 (Session 26 Osteoarthritis)
Moderator for 54th ORS meeting in San Francisco 2008 (Session 36 Mechanical Causes of OA)

Abstract Review
Abstract Reviewer for the 55th Annual Meeting of the Orthopaedic Research society (2009) (Cartilage/Meniscus/Synovium-Cartilage Matrix Degredation/MMPs, ADAMTSs, ADAMs).
Abstract Reviewer for the International Chinese Hard Tissue Society. 2004, 2005, 2006, 2008

ORS Mentor program
Participation in ORS Mentor program since 2007

Journal Review:
Journal Reviewer for Journal of Rheumatism 2004
Journal Reviewer for American Cancer Letter 2005
Journal Reviewer for Cell Biology International 2007
Journal Reviewer for Arthritis Research & Therapy 2008
Journal Reviewer for Molecular and Cellular Biochemistry 2011
Journal Reviewer for Arthritis & Rheumatism 23-Aug-2011
Journal Reviewer for ANNALS of the New York Academy of Sciences Sep. 7, 2011
Journal Reviewer for Cell Biochemistry and Biophysics Dec. 7, 2011
Journal Reviewer for Journal of Rheumatism 2012
Journal Reviewer for Osteoarthritis and Cartilage 2012
Journal Reviewer for HISTOLOGY AND HISTOPATHOLOGY 2012

Editorial Board
Editorial Board Member of Rheumatology Since 2011

Editorial Board Member of Arthritis Since 2011

Grants Review:
Arthritis foundation 2012: Peer review of Innovative Research Grant
AO Foundation since 2010: Reviewing grant applications for the.

PTO
PTO active member since 2003 for Barrington Public School, RI 02806

CONSULTING

MEMBERSHIP IN SOCIETIES

1999- current: U.S. Orthopaedic Research Society (ORS).
2001- current: International Chinese Musculoskeletal Research Society (ICMRS)(Previously : International Chinese Hard Tissue Society (ICHTS)).
2009-current: International Cartilage Repair Society (ICRS).
2011-current：American Physiological Society

GRANTS

NIH/NIAMS (Lei Wei, PI) 1R01AR059142-01A1, 02/01/2011-01/31/2016
Histone Deacetylation Regulates Growth Plate Development. Evaluating how HDAC4 Regulation of growth plate development. Total cost: $1,562,353

NIH/ the National Institute of General Medical Science, 2P20-GM104937-06 (previously P20-RR024484), 09/15/2007-07/31/2017. Chen (PI)
Role: Associate Program Director of imaging and molecular biology core / center for biomedical research excellence in skeletal health and repair. Total: $1,155,000.

Arthritis National Research Foundation (lei Wei, PI), 05/01/10-8/31/2012
Principal Investigator, Role of Ihh in OA cartilage. $150,000

Pending

SDF-1 and/or Ihh Is A Novel Biomarker of Early Detection of Cartilage Damage After Anterior Cruciate Ligament (ACL) Injury, NIH/NIAMS (Lei Wei, PI)

Activated Ihh is a risk factor for aging articular cartilage degradation, NIH/NIA (Lei Wei, PI)

Colcris has a chondroprotective effect in surgery induced osteoarthritis. 12/01/11-11/30/2013. Principal Investigator. $520,000

Grant history

NIH/ the National Institute of General Medical Science, P20 GM104937-06 (Sub-Project ID: 7865), 09/15/2007-07/31/2012.

Principal Investigator (**24%**), Regulation of growth plate development by nuclear factors. Total: $1,155,000.

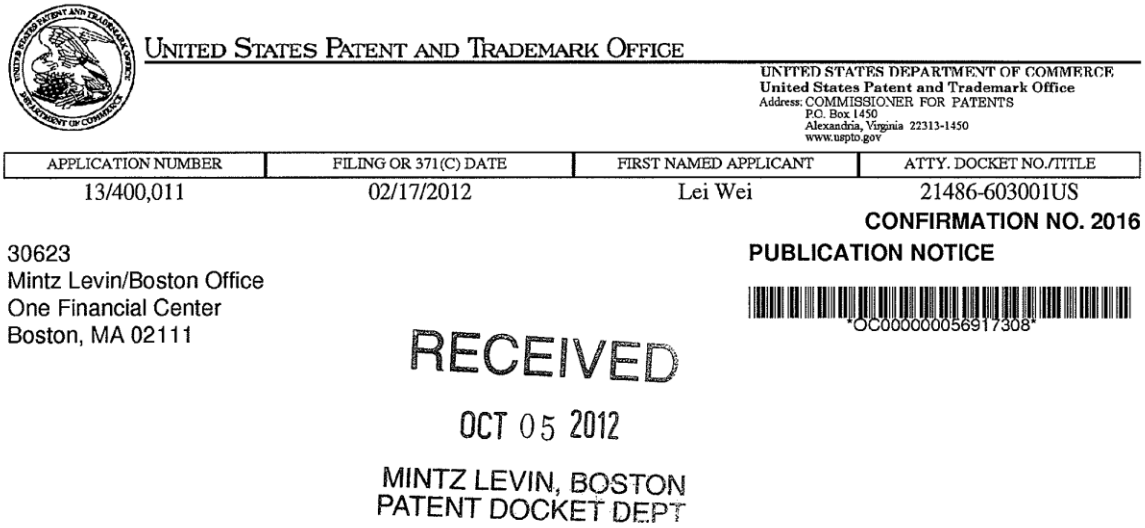
NIH/ NCRR COBRE Administrative Supplement to COBRE for Skeletal Health & Repair-Translational, 08/01/2009-07/31/2011. Principal Investigator for Sub-project: Disrupting SDF-1/CXCR4 signaling pathway in vivo by systemic injection of CXCR4 inhibitor AMD3100 will attenuate pathogenesis of cartilage joint degeneration in a mouse osteoarthritis model $100,000.

NIH/NIAMS (Lei Wei, **30%**) 1R03 AR052479-01A1, 04/01/2006-9/30/2010.
Principal Investigator, Chemokin Regulation of Cartilage Matrix Resorption. $231,000

Aircast Foundation (Lei Wei, **5%**), 03/01/08-1/31/2011
Principal Investigator, Disruption of SDF-1 signaling inhibits cartilage degeneration and attenuates osteoarthritis pathogenesis $100,000

RIH Orthopedic Foundation (Lei Wei), 09/15/2008-09/14/2010.The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA model in Guinea Pigs. The goal of this study is to identify different biomarkers between the second OA and primary OA.

Patent



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/400,011	02/17/2012	Lei Wei	21486-603001US

CONFIRMATION NO. 2016

30623
Mintz Levin/Boston Office
One Financial Center
Boston, MA 02111

PUBLICATION NOTICE

OC000000056917308

RECEIVED
OCT 05 2012
MINTZ LEVIN, BOSTON
PATENT DOCKET DEPT

Title: Indian Hedgehog (Ihh) as a Marker to Predict Osteoarthritis (OA) and Methods for the Prevention and Treatment of OA

Publication No.US-2012-0252870-A1
Publication Date:10/04/2012

PUBLICATIONS LIST

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Wei L, Mu W, Zhen ZE. Treatment of Palellar Fracture with Silk Thread for Sewing. Guizhou Medical Journal. 1988; 12 (4): 203-4.
2. Wei L. and Chen XD. The use of epidural needle in bone biopsy Journal of Guiyang Medical college 1989; 14(2): 151.
3. Wei L, Chen XD. Synovial Osteochondromatosis. Guizhou Medical Journal. 1989; 13 (3): 169. (Chinese).
4. Wei L, Mu W, Zhen ZE. Application of Niti Shape-Memory Alloy Compression Staple for Palellar fracture. Chinese Journal of Traumatology. 1989; 5 (3): 162-4. (Chinese).
5. Wei L, Chen XD, Sang XW. Tubercle in musculus gastrocnemius(case report) Guizhou Medical Journal. 1990: 14(4): 208.
6. Wei L, Zhen ZE, Lu XK and Muong HC. Effects of Hyperbaric Oxygenation Therapy in the acute Phase of Spinal Cord Injury. Guizhou medical Journal. 1992, 16 (6): 178-190. (Chinese).
7. Wei L, Shong XW and Ling PZ. Intervertebral Infection after Operation. Guizhou Medical Journal. 1992; 16 (6): 345-347. (Chinese).
8. Wei L, Lu ZX, Zhen ZE and Li DZ. Synovial Sheath of Tendon in Bone. Chinese Journal of Orthopaedics. 1992; 12 (3): 197. (Chinese).
9. Wei L and Chen XD. Treatment of idiopathic Scoliosis with Electrical Muscle Stimulation. Guizhou Medical Journal. 1992; 16 (3): 186-188. (Chinese).
10. Wei L and Pang EG. Fracture of Ulna and Radius on Forearm. Guizhou Medical Journal. 1992; 16 (2): 108. (Chinese).
11. Wei L, and Pang EG. Hand Injury. An Analysis of 8544 cases. Guizhou Medical Journal. 1993; 17 (1):54.
12. Wei L, Chen XD and Xang SW. The relationship between T3, T4 and Acute spinal cord injury. Journal of Spine and Spinal Cord. 1994, 4 (7): 66-68. (Chinese).
13. Yu Yanni and Wei Lei. Stereological study on the joint synovial cells in the experimental rats with fluorosis. J China Regional Disease. 1995: 14(5); 263-265.
14. Yu Yanni and Wei Lei. Effect of vitamin C on the contents of serum and bone fluoride in the experimental fluorosis rats. J China Regional Disease. 1995: 14(5); 268-270.
15. Yu Yanni and Wei Lei. Effect of vitamin C on the joint synovial cells in the experimental fluorosis rats with stereological method. China comprehensive medicine. 1996: 3: 41-43.
16. Wei, L., Svensson, O, and Hjerpe, A. Articular cartilage proteoglycans during development of primary osteoarthrosis in the guinea pig. Acta Orthop Scand (suppl 270) 1996; 67:63.
17. Yu Yanni and Wei Lei. Effect of vitamin C on the joint synovial cells in the experimental fluorosis rats with stereological method. China comprehensive medicine. 1996: 3: 41-43.
18. Edin de Bri, Wei, L., Finn P Reinholt, Silwa MW, Dick Heinegard, and Svensson, O. Ultrastructural immunolocalization of bone sioloprotein in guinea pig osteoarthrosis. Osteoarthritis and Cartilage. 1997; 5 (6): 387-393.
19. Wei, L., Svensson, O. and Hjerpe, A. Correlation of Morphological and Biochemical Changes in the Natural History of the Spontaneous Osteoarthrosis in Guinea Pigs. Arthritis Rheumatism. 1997: 40 (11): 2075-2083.
20. Wei, L., Hjerpe, A., and Svensson, O. Structural and biochemical changes in guinea pig osteoarthritis after surgically altered load. Acta orthopaedica Scandinavica Supplementum. 1998; 280 (69): 24.

21. Wei, L., Hjerpe, A., and Svensson, O. Proteoglycan turnover during development of spontaneous osteoarthrosis in guinea pig. Acta Orthopaedica Scandinavica Supplementum. 1998; 280 (69):23.
22. Edin de Bri, Wei, Lei, Olle Svesson, majeed Chowdhury, Susan A Mooak, and Robert A Greenwald. Effect of an inhibitor of matrix metalloproteinases on spontaneous osteoarthritis in guinea pigs. Dental Research 1998;vol12:82-85.
23. Wei, L., Svensson, O., and Hjerpe, A. Metabolic Turnover of Sulfated Glycosaminoglycans and Proteoglycans in Guinea Pigs Knee Articular Cartilage during Development of Primary Osteoarthrosis. Osteoarthritis and Cartilage. 1998; 6 (6): 410-416.
24. Wei, L., Lundberg, A., and Svensson, O. Mechanical Load and Primary Guinea Pig Osteoarthrosis. Acta Scandinavica Orthopadica. 1998; 69 (4): 351-357.
25. LP Zou, DH Ma, L Wei, van der Meide PH, Mix Eilhard and J Zhu. IFN-β suppresses experimental autoimmune neuritis in Lewis rats by inhibiting the migration of inflammatory cells into peripheral nervous tissue. J Neuroscience Research. 1999; 56: 123-130.
26. LP Zou, DH Ma, M Levi, B Wahren, BG Xiao, L Wei, E Mix, van der Meide PH, J Zhu. Antigenspecific immunosuppression: nasal tolerance of P0 protein peptides for the prevention and treatment of experimental autoimmune neuritis in Lewis rats. Journal of Neuroimmunology. 1999; 94: 109-121.
27. Edin de Bri and Wei, Lei. Biochemical and histological effects of tetracyclines on spontaneous osteoarthritis in guinea pigs. Image Anal Stereol 2000;19:125-131.
28. Xuechu Zhen, Lei Wei, Qiuqian Wu, Yue Zhang, and Qian Chen. Mitogen-Activated Protein Kinase p38 Mediates Regulation of Chondrocyte Differentiation by Parathyroid Hormone. Journal of Biological Chemistry 2001; 276(7): 4879-4885.
29. Wei, L., Hjerpe, A., and Svensson, O. The effect of load on articular cartilage matrix and the development of guinea-pig osteoarthritis. Osteoarthritis and Cartilage 2001; 9(5): 447-53.
30. Wei, L., Hultenby K, Hjerpe, A. Brismar H and Svensson, O. Distribution of chondroitin 4-sulfate epitopes (2/B/6) in spontaneous guinea pig osteoarthrosis. Acta Scandinavica Orthopadica. 2003; 74(1): 16-21.
31. Brismar BH, Wei L, Hjerpe A, Svensson O. The effect of body mass and physical activity on the development of guinea pig osteoarthrosis. Acta Orthop Scand. 2003; 74(4): 442-8.
32. Sun X, Wei L, Liden J, Hui G, Dahlman-Wright K, Hjerpe A, Dobra K. Molecular characterization of tumour heterogeneity and malignant mesothelioma cell differentiation by gene profiling. J Pathol. 2005 Jul 8;207(1):91-101.
33. Wei L, Sun X, Terek R, Chen Q. Down-Regulation of A Chemokine Receptor CXCR4 by Small Interfering RNA Inhibits MMP13 Release and Enhances TIMP 1 Expression in Articular Chondrocytes. Osteoarthritis and Cartilage 2005; 13: Supplement A S29.
34. Wei L, Sun X, Terek R, Chen Q. CD95 induced osteoarthritic chondrocytes apoptosis and necrosis: dependency on p38 mitogen-activated protein kinase. Arthritis Research & Therapy 2006; 8(2);R37. PMID: 16469115 [PubMed - indexed for MEDLINE]
35. Lei Wei, Xiaojuan Sun, Zhengke Wang, Changqi Sun, Katsuaki Kanbe, Richard Terek and Qian Chen. Chondrocyte Death Induced by Pathological Concentration of

Chemokine Stromal Cell-Derived Factor-1. The Journal of Rheumatology. 2006; 33(9): 1818-26. PMID: 16960943
36. van der Weyden, L., Wei, L, Luo, J., Yang, X., Birk, D. E., Adams, D. J., Bradley, A., and Chen, Q. Functional knockout of the matrilin-3 gene causes premature chondrocyte maturation to hypertrophy and increases bone mineral density and osteoarthritis, American Journal of Pathology, 169(2): 515-527, 2006.
37. Katsuaki Kanbe; Lei Wei; Changqi Sun; Qian Chen. Pericellular Matrilins Regulate Activation of Chondrocytes by Cyclic Load-Induced Matrix Deformation. The Journal of Bone and Mineral Research. 2007;22:318-328.
38. Surena Namdari, M.D., Lei Wei, M.D., Ph.D., Douglas Moore, M.S., and Qian Chen, Ph.D. Genetic Inhibition of P38 MAP Kinase Activity in Cartilage Reduces Limb Length and Worsens Osteoarthritis in Adult Mice. Arthritis & Rheumatism 58(11): 3520-3529, 2008.
39. Wei, L., Sun X., Kanbe K., Terek R. Critical Roles for Chemokine SDF-1 Signaling in Development of Growth Plate Chondrocyte Hypertrophy. Bone Supplement 1, 2008; 43:532.
40. Yan-lin Li, Rui Han, Xue-ling Zhao, Xiao-guang Xiu, Hong-tao Guo,Yong-nian Wang, Lei Wei. A New Osteonecrosis Animal Model of The Femoral Head Induced by Microwave Heating and Repaired With Tissue Engineered Bone. International Orthopaedics. 33(2):573-80, 2009 Apr.
41. Ming Pei, Fan He, Ashley Rawson and Lei Wei. Melatonin enhances chondrogenic differentiation of porcine articular chondrocytes. J Pineal Res. 46(2):181-7, 2009.
42. Xiaojuan Sun, Lei Wei, and Richard M.Terek. HDAC4 Represses Vascular Endothelial Growth Factor Expression in Chondrosarcoma by Modulating RUNX2 Activity. JBC 284(33):21881-90, 2009 Aug 14.
43. Pei M., Chen D., Li J., Wei L. Histone deacetylase 4 promotes TGF-beta1-induced synovium-derived stem cell chondrogenesis but inhibits chondrogenically differentiated stem cell hypertrophy. Differentiation 2009 Dec;78(5):260-8. PMID: 19716643
44. Lei Wei, Braden C. Fleming, Xiaojuan Sun, Erin Teeple, Wesley Wu, Gregory D. Jay, Khaled A. Elsaid, Jason T. Machan, Qian Chen. Comparison of Differential Biomarkers of Osteoarthritis with and without Post-traumatic Injury in the Hartley Guinea Pig Model. Journal of Orthopedic Research. 2010 Jul;28(7):900-6. PMID: 20108346.
45. Lei Wei, Katsuaki Kanbe, Mark Lee, Richard Terek, Qian Chen. Stimulation of Chondrocyte Hypertrophy by Chemokine Stromal Cell-Derived Factor 1 in the Chondro-osseous Junction during endochondral bone formation. Developmental biology 2010 May 1;341(1):236-45 (PMCID: PMC2862458)
46. Xiaojuan Sun, Lei Wei, Qian Chen and Richard M Terek. CXCR4/SDF1 mediate hypoxia induced chondrosarcoma cell invasion through ERK signaling and increased MMP1 expression. Molecular Cancer 2010 Jan 26;9:17. PMID: 20102637.
47. Wangping Duan, Lei Wei, Yongzhuang Hao, Juntao Zhang, Chunjiang Li, Hao Li, Qi Li, Quanyou Zhang, Weiyi Chen, Xiaochun Wei. Alteration of Viscoelastic Properties is associated with the change of the Cytoskeleton Components in Age-related chondrocytes from Rabbit Knee Articular Cartilage. Molecular & Cellular Biomechanics (MCB) 2011; 8(4):253-274. PMID: 22338706.
48. M. Pei, F. He and L. Wei. Three-Dimensional Cell Expansion Substrate for Cartilage tissue Engineering and Regeneration: A Comparison in Decellularized matrix Deposited

by Synovium-Derived Stem Cells and Chondrocytes J Tissue Science & Engineering 2011, 2:2

49. HE Yi-Xin, Zhang Ge, Pan Xiao-Hua, Liu Zhong, Zheng Li-zhen, Chan Chun-Wai, Lee Kwong-Man, Cao Yong-Ping, Li Gang, Wei Lei, Hung Leung-Kim, Leung Kwok-Sui, Qin Ling. Impaired bone healing pattern in mice with ovariectomy-induced osteoporosis: A drill-hole defect model. Bone 2011: 48; 1388–1400. PMID: 21421090.
50. Angie Guan, Xu Yang, Lei Wei, Qian Chen. MiR-365: A Mechano-sensitive MicroRNA Stimulates Chondrocyte Differentiation through Targeting Histone Deacetylase 4. The FASEB Journal 2011; vol. 25 no. 12 4457-4466, PMID: 21856783
51. HE Yi-Xin, Liu Zhong, Pan Xiao-Hua, Tang Tao, Guo Bao-Sheng, Zheng Li-zhen, Lee Kwong-Man, Cao Yong-Ping, Wei Lei, Hung Leung-Kim, Qin Ling, Zhang Ge. Deletion of estrogen receptor beta accelerates early stage of bone healing in a mouse osteotomy model. Osteoporos International. 2012 Jan; 23(1):377-89. PMID: 22037970
52. Xiaochun Wei, Kun Yin, Pengcui Li, Huan Wang, Juan Ding, Wangping Duan, Lei Wei. Type II collagen fragment HELIX-II is a marker for early cartilage lesions but does not predict progression of cartilage destruction in human knee joint synovial fluid. Rheumatology International. 2012 Jan 12. (Epub ahead of print) PMID: 22238024
53. Yingjie Guan[1], Qian Chen[1], Xu Yang[1]， Paul Haines [1], Mei Pei [2], Richard Terek[1], Xiaochun Wei[3], Tingcun Zhao[4], Lei Wei [1, 3] Subcellular Relocation of Histone Deacetylase 4 Regulates Growth Plate Chondrocyte Differentiation through Ca^{2+}/Calmodulin-Dependent Kinase IV。AJP-Cell Physiology. 2012 Jul;303(1):C33-40 PMID: 22442139 [PubMed - as supplied by publisher]
54. Yuze Wang, Lei Wei, Xiaochun Wei. Nutrition and Degeneration of Articular Cartilage。Knee Surgery, Sports Traumatology, Arthroscopy。2012 April. PMID: 22476522 [PubMed - as supplied by publisher]
55. Fangyuan Wei, Jingming Zhou, Xiaochun Wei, Braden C. Fleming, Richard Terek, Qian Chen, Ming Pei, and Lei Wei. Activation of Indian Hedgehog Promotes Chondrocyte Hypertrophy and Upregulation of MMP-13 in Human Osteoarthritic Cartilage. Osteoarthritis and Cartilage. 2012 Jul;20(7):755-63 PMID: 22469853
56. Fangyuan Wei, Douglas C. Moore, Yanlin Li, Ge Zhang, Xiaochun Wei, Joseph K. Lee, Lei Wei. Attenuation of Osteoarthritis via Blockade of the SDF-1/CXCR4 Signaling Pathway. Arthritis Research & Therapy 2012, 14（4）:R177. PMID: 22849584. [Epub- as supplied by publisher]
57. Ling Zhang, Bing Chen, Yu Zhao, Patricia Dubielecka-Szczerba, Lei Wei, Gang L, Qin, Eugene Y, Chin, Yigang Wang, and Ting Zhao. Inhibition of histone deacetylases-induced myocardial repair is mediated by c-kit in infracted hearts. J. Biol. Chem. published September 28, 2012 as *doi:*10.1074/jbc.M112.379115
58. Xiaojuan Sun, Lei Wei, Richard Terek. CXCR4 Targeted Therapy Inhibits VEGF Expression and Chondrosarcoma Angiogenesis. Clinical Orthopaedics and Related Research
59. Decellularized stem cell matrix - A robust in vitro expansion substrate for cartilage tissue engineering than matrix deposited by chondrocytes (Cellprol-0907-11). Submitted to the Cell Proliferation (4-29-11).

BOOKS AND CHAPERS

1. Chen, Q., Lei, W., Wang, Z., Sun, X., Luo, J., and Yang, X. Endochondral bone formation and extracellular matrix, Current Topics in Bone Biology, 145-162, Deng, H., and Liu, Y. (Eds) World Scientific Publishing Co. 2005.
2. Wei, L. Guinea Pig Osteoarthritis-Morphological and Biochemical Studies. Printed in Sweden by Repro Print AB, Stockholm 1999: 2. ISBN 91-628-3361-8.

PUBLICATIONS SUBMITTED OR IN PREPARATION

1. Angel Guan, Terek RM, and Lei Wei. The mechanism of HDAC4 regulates growth plate development. Manuscript.
2. Frank Wei, Terek RM, Douglas Moore, and Lei Wei. AMD3100 inhibits OA cartilage degradation in primary guinea pig OA model. Manuscript.
3. Jingming Zhou, Xiaochun Wei, Braden C. Fleming, Richard Terek, Qian Chen, Ming Pei, and Lei Wei. A2M is a internal control for human OA synovial fluid study.
4. Joseph Lee, Xiaojuan Sun, Terek RM, Douglas Moore, and Lei Wei. The distribution of IGF-1 on knee joints during OA development in primary guinea pig OA model. Manuscript. Manuscript.

Oral Presentation (After 1997)

1. Jingming Zhou(1); Yuzhi Wei(2); Xiaochun Wei(2); Shaowei Wang(1, 2); Ge Zhang(3); Qian Chen(1); Richard Terek(1); Lei Wei(1). Disrupting Ihh signaling pathway in vivo attenuates OA progression in Col2a1-CreERT2; Ihhfl/fl mouse induced by surgery. NIRA finalists and Podium at the ORS 2013 Annual Meeting in San Antonio, Texas, January 26-29 at the Henry B Gonzalez Convention Center.
2. Changqi Sun(1); Yuzhi Wei(2); Xiaochun Wei(2); Caroline Huang(1); Ge Zhang(3); Richard Tereck(1); Lei Wei (1). Decrease of HDAC4 is associated with OA cartilage degeneration by up-regulating OA related genes. Podium at the ORS 2013 Annual Meeting in San Antonio, Texas, January 26-29 at the Henry B Gonzalez Convention Center.
3. Lei Wei, Hongbin Li, Shaowei Wang, Kai Li, Pengcui Li, Douglas C Moore, Qian Chen, Ge Zhang, Xiaodu Wang, Xiaochun Wei. The Role of Indian Hedgehog (Ihh) in Fibular Fracture Healing in Col2a1-CreER; Ihhfl/fl and WT Mice. The Seventh International Congress of Chinese Orthopaedic Association (COA2012) on November 15-18, 2012. Beijing.
4. Indian Hedgehog is not required for Fibular Fracture Healing in *Col2a1-CreER*; $Ihh^{fl/fl}$ Mice. 6th International Conference on Osteoporosis and Bone Research 2012 (ICOBR2012). Sept. 20-23, 2012 in Xi'an, China.
5. Xiaojuan Sun, Cherie Charbonneau, Lei Wei, Qian Chen, Richard Terek. CXCR4 targeted therapy for chondrosarcoma Treatment. the 64th Annual Meeting of The Association of Bone and Joint Surgeons
6. Wangping Duan; Yuzhi Wei; Lei Wei; Xiaochun Wei. A Decrease of the Cytoskeleton Components is associated with an alteration of Viscoelastic Properties in Aged Chondrocytes. ORS 2012 Annual Meeting in San Francisco, California, February 4-7 at the Moscone West Convention Center.

7. Yuze Wang; Yuzhi Wei; Lei Wei; Xiaochun Wei. Sources of Nutrition and Articular Cartilage Degeneration: An Experimental Study. ORS 2012 Annual Meeting in San Francisco, California, February 4-7 at the Moscone West Convention Center.
8. Xiaochun Wei; Yuzhi Wei; Xiaowei Wang; Braden Fleming; Richard Terek; Qian Chen; Ge Zhang; Lei Wei. A-2-Macroglobulin Inhibits Inflammatory Cytokines and MMPs in Osteoarthritis. ORS 2012 Annual Meeting in San Francisco, California, February 4-7 at the Moscone West Convention Center.
9. Lei Wei, Frank Wei, Jingming Zhou, Qian Chen, Xiaochun Wei. Indian Hedgehog, A New Marker and Target for Early Diagnosis and Treatment of Osteoarthritis. The sixth International Conference of Chinese Orthopaedic Association (COA). Beijing, December 1-4, 2011
10. Lei Wei Prevention of Osteoarthritis by inhibiting hedgehog signaling. 4th Northeast Regional IDeA Meeting. Salve Regina University, Newport, RI USA 8-10-2011to 8-12-11.
11. Yingjin Guan, Xu Yang, Lei Wei, Qian Chen. MIR-365: a mechano-sensitive microrna stimulates chondrocyte differentiation through targetin HDAC4. 4th Northeast Regional IDeA Meeting. Salve Regina University, Newport, RI USA 8-10-2011to 8-12-11.
12. Richard Terek, Xiaojuan Sun, Lei Wei. CXCR4 targted therapy for chondrosarcoma. 4th Northeast Regional IDeA Meeting. Salve Regina University, Newport, RI USA 8-10-2011to 8-12-11.
13. Fang Yuan Wei; Douglas Moore; Xiaochun Wei; Kai Li; Yanlin Li; Qian Chen; Lei Wei. Blockage of SDF-1 Binding to CXCR4 Attenuates OA Severity in Human Cartilage Explants and the Duncan-Hartley Guinea Pig Model of Primary Osteoarthritis. one of the 46 finalists for the Orthopaedic Research Society's New Investigator Recognition Awards (NIRA) competition at the ORS 2011 Annual Meeting in Long Beach, California, January 13-16. FINAL POSTER #: 0471. SESSION TITLE: NIRA Poster Session
14. Kai Li(1, 2); Angie guan(1); Xiaochun Wei(2); Qian Chen(1); Lei Wei(1). The identification of microRNA-31 in osteoarthritic cartilage that regulates the production of MMP-1, MMP-13, and VEGF. Podium, January 14, 2011 from 2:07pm to 2:14pm. ORS 57th 2011 Annual Meeting in Long Beach, California, January 13-16, 2011
15. Jingming Zhou(1); Kai Li(1, 2); Jing Zhang(1); Xiaochun Wei(2); Shaowei Wang(2, 1); Qian Chen(1); Lei Wei(1). α1-antitrypsin, a potential candidate for internal control for human synovial fluid in western blot. ORS 57th 2011 Annual Meeting in Long Beach, California, January 13-16, 2011
16. Kai Li, Frank Wei, Jingming Zhou, Xiaochun Wei, Qian Chen, Braden Fleming, Richard Terek, Lei Wei. Activation of Indian Hedgehog Promotes Chondrocyte Hypertrophy Upregulation of MMP-13 in Human Osteoarthritic cartilage. International Conference on Osteoporosis and Bone Research (ICOBR). Oct. 28-31, 2010 in Shenzhen, China.
17. Lei Wei, Xu Yang, and Qian Chen Pre-clinical animal models of osteoarthritis. International Conference on Osteoporosis and Bone Research (ICOBR). Oct. 28-31, 2010 in Shenzhen, China.
18. Wei X., Li K., Wei L. Type II collagen fragment HELIX-II is a marker of early cartilage damage but is insensitive to predict progression of cartilage destruction in human knee joint synovial fluid9th World Congress of the International Cartilage Repair Society. Sept. 26 - 29, 2010, Sitges / Barcelona, Spain
19. Lei Wei, Rick Terek, Xiaochen Wei, Qian Chen. Stimulation of Chondrocyte Hypertrophy by Chemokine Stromal Cell-Derived Factor 1 in the Chondro-osseous

Junction through a Positive Feedback Loop Mediated by Runx2. Present at the ORS 56th Annual Meeting, March 6-9, 2010 in New Orleans, Louisiana

20. Lei Wei, Frank Wei, Jingming Zhou, Xiaochen Wei, Rick Terek, Qian Chen. Activation of Indian Hedgehog Promotes Chondrocyte Hypertrophy and Upregulation of MMP-13 in Osteoarthritic Cartilage. Present at the ORS 56th Annual Meeting, March 6-9, 2010 in New Orleans, Louisiana. Podium
21. Wesley Wu, Frank Wei, Gregory D. Jay, Khaled A. Elsaid, Qian Chen, Michael G. Ehrlich, Lei Wei. Assessing the Role of Synovial Inflammation, SDF-1, IL-1-Beta, TNF-alpha, and Lubricin in the Pathogenesis of Morphologically Similar Natural and Post-traumatic Hartley Guinea Pig OA Models. Present at the ORS 56th Annual Meeting, March 6-9, 2010 in New Orleans, Louisiana
22. Xiaojuan Sun, Lei Wei, Qian Chen, Rick Terek. CXCR4/SDF-1 Promote Angiogenesis in Chondrosarcoma. Present at the ORS 56th Annual Meeting, March 6-9, 2010 in New Orleans, Louisiana
23. Angie Guan, Qian Chen, Lei Wei. Subcellular Relocation of Histone Deacetylase 4 Regulates Growth Plate Chondrocyte Differentiation through Ca2+/Calmodulin-Dependent Kinase IV. 55th ORS meeting in Las Vegas, Nevada 2009. New Investigator Recognition Awards (NIRA).
24. Mauricio Valdez et al, Lei Wei, Changqi Sun, Xiaojuan Sun and Wentian Yang. Role of Naloxone in osteoblastic differentiation. 2009 AAOS Annual Meeting, in Las Vegas, Nevada, Feb. 25-28, 2009
25. Richard Terek, Lei Wei, Qian Chen, xiaojuan Sun. MMP-1 expression is regulated by CXCR4/SDF-1 in chondrosacoma cells. 55th ORS meeting in Las Vegas, Nevada 2009
26. Wei, L., et al. Critical Roles for Chemokine SDF-1 Signaling in Development of Growth Plate Chondrocyte Hypertrophy. the ICOBR 2008 as an Oral Presentation. Oct. 22-25, 2008, Beijing China
27. Wei, L., et al. HDAC4 regulates growth plate development. NIH 2nd Biennial National IDeA Symposium of Biomedical research Excellence (NISBRE). August 6-8, 2008, Washington DC
28. Wei, Lei. Relocation of HDAC4 regulates growth plate chondrocyte differentiation. Keynote speaker, Rhode Island Research Alliance Symposium, June 3, 2008. Providence, RI.
29. Sun, X; Wei, L; Block, JA; Chen, Q; Terek RM. CXCR4 is crucial for chondrodarcoma cell invasion regulated by Hif1a. 54th Orthopaedic Research Society Annual Meeting, March 2-5, 2008, in San Francisco, CA. Podium presentation
30. Wei L., Fleming BC, Sun X., Teeple E., Wu W., Jay G.D., Elsaid K.A., Luo J., Chen Q. A Comparison of Differential Biomarkers of Osteoarthritis with and without Post-traumatic Injury in the Hartley Guinea Pig Model. 54th Orthopaedic Research Society Annual Meeting, March 2-5, 2008, in San Francisco, CA
31. Sun, C; Yang, X; Wei, L; Weiss, KE; Wang, Z; Chen, Q. IDENTIFICATION OF THE CLUSTERED EPITHELIAL GROWTH FACTOR REPEATS IN MATRILIN-3 AS AN ANTAGONIST OF BONE MORPHOGENETIC PROTEIN SIGNALING. 53th Orthopaedic Research Society Annual Meeting, February 11-14, 2007, in San Diego, CA
32. Sun, X; Lei Wei; Block, JA; Chen, Q; Terek RM. OVEREXPRESSION OF HDAC4 DOWN-REGULATES VASCULAR ENDOTHELIAL GROWTH FACTOR EXPRESSION IN CHONDROSARCOMA CELLS BY MODULATING RUNX2

EXPRESSION. 53th Orthopaedic Research Society Annual Meeting, February 11-14, 2007, in San Diego, CA

33. Namdari, S; Moore, DC; Lei Wei; Chen, Q. CHRONIC CARTILAGE-SPECIFIC REDUCTION OF P38 MAP KINASE ACTIVITY IN TRANSGENIC MICE WORSENS ORTEOARTHTRITIS. 53th Orthopaedic Research Society Annual Meeting, February 11-14, 2007, in San Diego, CA
34. Yang, X; Luo, J; Lei Wei; Wang, Z; van der Weyden, L; Bradley, A; Chen, Q. MATRILIN-3 MODULATES CHONDROCYTE HYPERTROPHY THROUGH BONE MORPHOGENETIC PROTEIN. 52th Orthopaedic Research Society Annual Meeting, March 19-22, 2006, in Chicago, Illinois
35. Luo, J; Zhang, Y; Wang, Z; Lei Wei; Chen, Q. FUNCTIONAL DIFFERENCES UNDERLYING MATRILIN-3 MUTATIONS IN SPONDYLO-EPI-METAPHYSEAL DYSPLASIA AND IN HAND OSTEOARTHRITIS. 52th Orthopaedic Research Society Annual Meeting, March 19-22, 2006, in Chicago, Illinois
36. Wang, Z; Yang, X; Lei Wei; Luo, J; Chen, Q. TRICHOSTATIN A, A HISTONE DEACETYLASE INHIBITOR, BLOCKS CARTILAGE DIFFERENTIATION BY INHIBITING CHONDROCYTE GENE EXPRESSION. 52th Orthopaedic Research Society Annual Meeting, March 19-22, 2006, in Chicago, Illinois
37. Sun, X; Lei Wei; Block,JA; Terek RM. OVEREXPRESSION OF HDAC4 DOWN-REGULATES VASCULAR ENDOTHELIAL GROWTH FACTOR EXPRESSION IN CHONDROSARCOMA CELLS BY MODULATING RUNX2 EXPRESSION. 52th Orthopaedic Research Society Annual Meeting, March 19-22, 2006, in Chicago, Illinois
38. Lei Wei; Xiaojuan Sun, Zhenk Wang, Richard Terek, and Qian Chen. INHIBITING CHEMOKINE STROMAL CELL DERIVED FACTOR-1 INDUCED CARTILAGE DEGRADATION by SMALL INTERFERING RNA and by MONOCLONAL ANTIBODY THERAPY. 52th Orthopaedic Research Society Annual Meeting, March 19-22, 2006, in Chicago, Illinois
39. Sun, X; Lei Wei; Lee, J; Liu, J; Terek, R; and Qian Chen. CHEMOKINE STROMAL CELL-DERIVED FACTOR-1 INDUCES MATRIX DEGRADATION, CHONDROCYTE MIGRATION, AND FISSURE FORMATION IN ARTICULAR CARTILAGE. 51th Orthopaedic Research Society Annual Meeting, February 20-23, 2005, in Washington, D.C
40. Sun, X; Lei Wei; Hopper, J; and Chen, Q. Mannosyltransferase I: Regulating chondrocyte differentiation and apoptosis through interaction with p38 MAP Kinase. 51th Orthopaedic Research Society Annual Meeting, February 20-23, 2005, in Washington, D.C
41. Namdari, S; Moore, DC; Lei Wei; Chen, Q. PARTIAL REDUCTION OF P38 MAPK ACTIVITY INHIBITS LONGITUDINAL BONE GROWTH BUT DOES NOT AFFECT BONE BIOMECHANICAL PROPERTIES. 51th Orthopaedic Research Society Annual Meeting, February 20-23, 2005, in Washington, D.C
42. Kanbe, K; Inoue, K; Xiang, C; Lei Wei; Chen, Q. GENE EXPRESSION ANALYSIS OF CHONDROCYTE MECHANICAL RESPONSE BY LARGE SCALE DNAMICROARRAY 50th Orthopaedic Research Society Annual Meeting, March 7-10, 2004, in San Francisco, CA
43. Kanbe, K; Lei Wei; Sun X; Chen, Q. FACTOR-1/CXC CHEMOKINE RECEPTOR 4 PATHWAY STIMULATION OF CHONDROCYTE HYPERTROPHIC PHENOTYPE

BY STROMAL CELL DERIVED FACTOR-1/CXC CHEMOKINE RECEPTOR 4 PATHWAY 50th Orthopaedic Research Society Annual Meeting, March 7-10, 2004, in San Francisco, CA

44. Sun X; Lei Wei; Kanbe K; Davis CM; Chen Q. CHEMOKINE STROMAL CELL-DERIVED FACTOR-1 INDUCES CHONDROCYTE DEATH THROUGH NECROSIS. 49th Orthopaedic Research Society Annual Meeting, February 2-5, 2003, in New Orleans, LA
45. Sun X; Lei Wei; Cheah K; Bronson S; Chen Q ABOLITION OF ENDOCHONDRAL BONE FORMATION BY A DOMINANT NEGATIVE P38 MAP KINASTRANSGENE IN A TRANSGENIC MOUSE MODEL 49th Orthopaedic Research Society Annual Meeting, February 2-5, 2003, in New Orleans, LA
46. Lei Wei;., Sun X., Chen, Q. Suppression of cell death and OA progression by inhibiting intracellular p38 MAP kinase in chondrocytes: *In vitro and in vivo* evidence. 2002 OARSI World Congress (2002 Osteoarthritis Research Society International (OARSI) Young Investigator Award) Sep. 22-25, 2002 in Sydney, Australia.
47. Xiaojuan Sun, Lei Wei, Charles M. Davis, III, and Qian Chen. Anti-Fas Induction of apoptosis in human osteoarthritic chondrocytes through activating transcription factor 2 and caspase-3: dependence on p38 mitogen-activated protein kinase. 48th Orthopaedic Research Society Annual Meeting, February 10-13, 2002, in Dallas, Texas.
48. Xiaojuan Sun, Lei Wei, and Qian Chen. Molecular Molecular selection of cell lineages between intramembranous and endochondral ossification: important roles of p38 Mitogen-activated Protein Kinase. 48th Orthopaedic Research Society Annual Meeting, February 10-13, 2002, in Dallas, Texas.
49. Lei Wei, Edin de Bri, Xiaojuan Sun, Anders Hjerpe, Olle Svensson, Qian Chen. Dramatic decrease of IGF-I messenger RNA is associated with progressive loss of chondrocytes and PG in a guinea pig primary OA model. 47th Orthopaedic Research Society Annual Meeting, February 25-28, 2001, in San francisco, California.
50. Lei Wei and Qian Chen. The MKK6/p38 MAPK pathway is essential to determine chondrocyte proliferation and hypertrophy. 47th Orthopaedic Research Society Annual Meeting, February 25-28, 2001, in San francisco, California.
51. Lei Wei and Qian Chen. Regulation of chondrocyte death during endochondral ossification by p38 mitogen-activated protein kinase: mechanism of coupling hypertrophy and apoptosis. 47th Orthopaedic Research Society Annual Meeting, February 25-28, 2001, in San francisco, California.
52. Lei Wei, Edin de Bri, Xiaojuan Sun, Anders Hjerpe, Olle Svensson, and Qian Chen. A primary osteoarthritis animal model. Decrease of IGF-1 mRNA is associated with loss of chondrocytes and proteoglycans in aging guinea pig joints. The third biennial arthritis research conference, March 23-25, 2001, in San Diego.
53. Wei, L., Hultenby K., Hjerpe A., Brismar H., and Svensson O. Distribution of Chondroitin 4 sulfate Epitopes (2/B/6) in Spontaneous Guinea Pig Osteoarthrosis. SIROT 2000 CHINA and CSOS 2000 CHINA, May 5-10, 2000, Shanghai-Beijing, China.
54. Wei, L., Hjerpe A and Svensson O. Effect of Load on Articular cartilage matrix and development of guinea pig osteoarthritis. SIROT 2000 CHINA and CSOS 2000 CHINA, May 5-10, 2000, Shanghai-Beijing, China.

55. Wei, L., Hjerpe A., Svensson O. Distribution of Proteoglycans in Primary Guinea Pig Osteoarthrosis. 9th Conference of the European Orthopaedic Research Society Combined with the 4th EFFORT Meeting, in Brussels, June 3-4, 1999.
56. Wei, L., Svensson, O, and Hjerpe, A. Proteoglycans and collagen content in knee articular cartilage of guinea pig during development of primary osteoarthrosis. European Orthopaedic Research. 7th Annual Conference April. 22-23, 1997, Barcelona, Spain. Transaction Volume 7, Page 152.
57. Wei, L., de Bri E., Lundberg A., Brismar H., and Svensson, O. Mechanical load and primary guinea pig osteoarthrosis. European Orthopaedic Research. 7th Annual Conference April. 22-23, 1997, Barcelona, Spain. Transaction Volume 7, Page 150.
58. Wei, L., Svensson, O, and Hjerpe, A. Articular cartilage proteoglycans during development of primary osteoarthrosis in the guinea pig. Nordic Orthopedic Federation 48th congress, 12-15 June 1996. Bergen-Norway. Oral Presentation.
59. Edin de Bri, Wei L., Finn P Reinholt, silva MW, Dick Heinegard, and Svensson O. Ultrastructural immunolocalization of bone sioloprotein in guinea pig osteoarthrosis. 42nd Annual Meeting, Orthopaedic Research Society, February 19-22, 1996, Atlanta. Georgia. Volume 21-Section2, page 745.

Invited Speaker and external examiner at International (National) Meeting and University Within the last two Years

Lei Wei, Relocation of HDAC4 regulates Growth Plate Chondrocyte Differentiati. Rhode Island Research Alliance 06-01-08

Lei Wei, The role of HDAC4 in Growth Plate Development. 08-06-08 2nd Biennial National IDeA Symposium in Washington DC.

Lei Wei, Blockage of SDF-1/CXCR4 pathway attenuates osteoarthritis severity. The Fifth International Congress of Chinese Orthopaedic Association (COA) on November 11-14, 2010, Pride International Convention Centre, Chengdu, China

Lei Wei, Prevention of Osteoarthritis by inhibiting hedgehog signaling. 4th Northeast Regional IDeA Meeting. Salve Regina University, Newport, RI USA 8-10-11-8-12-11

Lei Wei, Indian Hedgehog is not required for Fibular Fracture Healing in *Col2a1-CreER*; $Ihh^{fl/fl}$ Mice. 6th International Conference on Osteoporosis and Bone Research 2012 (ICOBR2012). Sept. 20-23, 2012 in Xi'an, China.

Lei Wei, Ihh in fracture healing. The Seventh International Congress of Chinese Orthopaedic Association (COA) on November 15-18, 2012, Beijing, China

External examiner for Frank. Frank's PhD. thesis entitled "Effect of low intensity pulsed ultrasound on mesenchymal stem cell recruitment in fracture healing in young and osteoporotic rat models" (The Chinese University of Hong Kong)(2013)

UNIVERSITY TEACHING ROLES

Brown University Course: BIOLOGY 1960 (2013) the independent study

Brown University Course: BIOLOGY 1950 (2007 Fall)

Brown Medical School Summer Research Assistantship

2013 Nathan P. Thomas Brown University '14 MD '18 Bio1960, the independent study. Research Title: AMD3100 prevents surgery-induced OA
2012 Nathan P. Thomas Brown University '14 MD '18 Research Title: HDAC4 regulates chondrocyte proliferation
2011 Lindsay Wong, Brown University, a sophomore biology student. Half life of A2M protein *in vivo*
2010 Wesley Wu – Continuing The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA Model in Guinea Pigs
2009 Woody Fazzano, Gettysburg University. MicroRNA Expression Profile in OA Cartilage
2009 Wesley Wu - The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA Model in Guinea Pigs
2008 Wesley Wu – Compared the Primary and the Post-Traumatic OA Model in Guinea Pigs
2007 Wesley Wu - Apoptosis in Articular Cartilage of ACL reconstruction Goat Joint at high and Low Tension

Colby College Summer Research
2008 Heather Liu- The Mechanism of Rabbit Growth Plate Closure Induced By Stromal Cell-Derived Factor-1 Causes the Depletion of Resting Zone Chondrocytes

Undergraduate Honors Thesis

2012 Lei Zhang, Brown biomedical engineering student: 3D tissue engineer cartilage

2012 Courtney Mazur, Brown biomedical engineering student: Helical rosette nanotubes for cartilage regeneration

2006 Carol Lim (Honor Thesis: Stimulation of Chondrocyte Hypertrophic Phenotype by Stromal Cell Derived Factor-1/CXC Chemokine Receptor 4 Pathway Involving A Transcription Factor Runx2).

Masters of Science

2011-6/2012 Louise Lee (Project title: Regulation of HDAC4 Relocation).
2011 Nathan P. Thomas Brown University '14 MD '18 Research Title: Blocking CXCR4/SDF-1 prevents surgery induced OA
2009 Wesley Wu (Project title: The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA Model in Guinea Pigs).
2008 Wesley Wu (Project title: The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA Model in Guinea Pigs).
2007 Wesley Wu (Project title: The Pathology Process of the Post-Traumatic OA Model is Different from the Naturally Developed OA Model in Guinea Pigs).

Wesley Wu. Angiogenesis is involved in stromal cell-derived factor-1 induced rabbit growth plate closure. Present at Orthopaedic Student research day in RIH May 7, 2008

Lee, Joseph (Medical Student: SDF-1 regulates OA cartilage degradation).

Taner Anil (Medical Student: Apoptosis in Rabbit Growth Plate treated by SDF-1).

International Graduate Students

Heng Wu: Brown-Hong Kong Chinese University Exchanged Student 6-1-12-8-31-2012

Boris Guo: Brown-Hong Kong Chinese University Exchanged Student 5-1-12-7-31-2012

ORTHOPAEDIC RESIDENTS AND FELLOW RESEARCH PROJECT ADVISOR AND COLLABORATOR

Mark Lee: SDF-1 closes growth plate
Ying Li: Articular cartilage change with aging in matrin-1 knock out mice
Clifford Voigt, MS III: Epiphysiodesis with Infusion of SDF-1: Analysis of Treatment Duration
Lee, Joseph: The distribution of IGF-1 in Guinea Pig Primary OA
2008 Mauricio Valdez: Role of Naloxone in osteoblastic differentiation
2008 Clifford Voigt, MS III: Epiphysiodesis with Infusion of SDF-1: Analysis of Treatment Duration
2008 Deborah Appleyard et al. Cartilage viability after treatment with several sterilizing agents
Mauricio Valdez , Lei Wei, Changqi Sun, Xiaojuan Sun and Wentian Yang. Role of Naloxone in osteoblastic differentiation. 2009 AAOS Annual Meeting

2009 Clifford Voigt, MS III: Epiphysiodesis with Infusion of SDF-1: Analysis of Treatment Duration
2009 Deborah Appleyard et al. Cartilage viability after treatment with several sterilizing agents
2009 Ed Cheung: Epiphysiodesis with Infusion of SDF-1: Analysis of Treatment Duration

2010 Mauricio Valdez: Naloxone induces bone marrow stem cell differentiation into osteoblasts
2010 Ed Cheung: Continuing Epiphysiodesis with Infusion of SDF-1: Analysis of Treatment Duration

Postdoctoral training in my Lab

Charles Sun Ph.D., 2011-present: miR-1 transgenic mice

Angie Guan Ph.D., 2007-2009: the expression of miRNAs in growth plate and cartilage

Yanlin Li M.D., Ph.D., 2008: Inhibiting SDF-1 with AMD3100 to prevent OA. From The First Affiliated Hospital of Kunming Medical College, China

Jingming Zhou Ph.D., 2009-present, Biological Sciences Department of Biological Sciences, Wayne State University, Detroit, MI

Changqi Sun Ph.D., 2010-present, Biological Sciences Department of Biological Sciences, Japen

Jing Zhang M.D., 2010: SDF-1 induces bone marrow stem cell differentiation. From Nanshan Women and Children Hospital, Shenzhen, China

Kai Li M.D., PhD., 2010-2011 From Department of Orthopeadics 2nd Hospital of Shanxi Medical Univ. Tai Yuan, 030001 P.R.China

Shaowei Wang, Ph.D candidate 2010-present. A2M as a new marker for OA diagnosis. From Department of Orthopeadics 2nd Hospital of Shanxi Medical Univ. Tai Yuan, 030001 P.R.China

Hongbin Li, MD., Ph.D., 04/2011-present, The role of Ihh in the mouse fracture healing