

## **CURRICULUM VITAE**

### **GORDON W. NUBER, M.D.**

#### **OFFICE**

680 North Lake Shore Drive, Suite 924  
Chicago, Illinois 60611  
(312) 664-6848

#### **EDUCATION**

Northern Illinois University  
DeKalb, Illinois  
Years: 1969-1973  
Honors: Cum Laude  
Mid-American Conference Scholar  
Athlete of the Year, 1973  
Biology Society - Phi Sigma

Wayne State University, School of Medicine  
Detroit, Michigan  
Years: 1974-1978  
Degree: M.D.  
Honors: First Year  
Awards: Jaycees Outstanding Young Man of  
America, 1976

#### **INTERNSHIP**

Type: Rotating Surgical  
Northwestern Memorial Hospital  
Veterans Administration Lakeside Medical Center  
Chicago, Illinois  
July 1978-June 1979

**RESIDENCY**

Type: Orthopaedic Surgery  
Northwestern University Medical School  
Chicago, Illinois  
Years: July 1978-June 1983  
Anatomy Award, 1981  
Committees: Residency Selection  
Residency Research

**FELLOWSHIP**

Sports Medicine  
National Athletic Health Institute  
Inglewood, California  
Years: July 1983-June 1984

**HOSPITAL ROTATIONS**

St. Francis Hospital  
Evanston, Illinois  
January 1980-June 1980

Evanston Hospital  
Evanston, Illinois  
January 1981-June 1981

Cook County Hospital  
Hand Surgery, Trauma Service  
Chicago, Illinois  
July 1981-December 1981

Children's Memorial Hospital  
Chicago, Illinois  
January 1982-June 1982  
January 1983-June 1983

Northwestern Memorial Hospital  
Chief Orthopaedic Resident  
Chicago, Illinois  
July 1982-December 1982

Columbus Hospital  
Chicago, Illinois  
April 1983-June 1983

**CERTIFICATION**

American Board of Orthopaedic Surgery  
July 1986, July 1994  
Recertification 2004 - 2017  
American Board of Orthopaedic Surgeons  
Board Examiner Sports Medicine  
1996 --- Present

**LICENSES**

Illinois State License # 036-059611

**MEDICAL SCHOOL  
APPOINTMENTS**

*Professor of Clinical Orthopaedic Surgery*  
Northwestern University Medical School

*Vice Chairman* 1988-1998  
Department of Orthopaedic Surgery  
Northwestern University Medical School

*Director of the Residency Program* 1985-1996  
Department of Orthopaedic Surgery  
Northwestern University Medical School

**HOSPITAL  
APPOINTMENTS**

*Active Attending*  
Northwestern Memorial Hospital  
250 East Superior  
Chicago, Illinois  
August 1985 - present

*WOC Physician*  
Veterans Administration Lakeside Medical Center  
333 East Huron  
Chicago, Illinois  
January 1987 - present

*Junior Attending*  
Hutzel Hospital  
4707 St. Antoine  
Detroit, Michigan  
August 1984 - July 1985

**COMMITTEE SERVICE**

<i>Northwestern University Medical School,</i>	
<i>Department of Orthopaedic Surgery</i>	
Committee on Laser Technology	1991
Research Strategic Planning Committee	1988 - 1998
Executive Committee	1988 - 1998
Education Committee (Chairman)	1988 - 1998
Resident Research Committee	1987 - 1998
Sports Medicine Committee	1986 - 1998
Ad Hoc Committee on Education	1982
Resident Acceptance/Review Committee	1982
Promotions Committee	2006
 <i>Northwestern University Medical School</i>	
Editorial Board - Ward Rounds	1989
 <i>Northwestern University</i>	
Athletics and Recreation	1988-1989
 <i>Northwestern Memorial Hospital</i>	
Executive Committee	1990
Committee of Surgical Chairman, Chiefs	1990-1996
House Staff Meeting Agenda Planning Committee	1988
Orthopaedic Surgery Utilization and Quality	1988
Assurance Committee	
 <i>Northwestern Medical Faculty Foundation</i>	
Member Relations Committee	1992
Ancillary Committee	1986-1989
 <i>American Academy of Orthopaedic Surgeons</i>	
Committee on the Shoulder and Elbow	1994-1998
Knee Injury Clinical Algorithms Project	1993-1994
Team Member	
Surgical Skills committee	1999-2001
American Shoulder and Elbow Surgery Membership Committee	2002-Present
American Orthopaedic Society for Sports Medicine Council of Delegates	2003
 <i>American Shoulder and Elbow Surgery</i>	
European Traveling Fellowship Committee	2006

**SOCIETY MEMBERSHIPS**

American Orthopaedic Association	1994
National Football League Physicians Society	
1993	
National Hockey League Team Physicians Society	1993
American Shoulder and Elbow Surgery	1992
American Academy of Orthopaedic Surgeons	1988
Robert Kerlan Sports Medicine Society	1988
Illinois Orthopaedic Society	1988
Illinois State Medical Society	1985
American Medical Association	1985
Chicago Medical Society	1985
Chicago Orthopaedic Society	1985
American Orthopaedic Society for Sports Medicine	1985
Active Member	
Academic Orthopaedic Society	1986
Institute for BioNanotechnology in Medicine	2008

**EDITORIAL SERVICE**

Reviewer, <i>American Journal of Sports Medicine</i>	1988 - 2004
Reviewer, <i>Journal of Shoulder and Elbow Surgery</i>	1999 - present

**TEAM AFFILIATIONS**

Team Physician, Chicago Blackhawks Hockey Team	1997 - 2005
Team Physician, Chicago Bears Football Team	1992 - present
Orthopaedic Consultant, Chicago Cubs Baseball Team	1986 - 1999
Orthopaedic Consultant, Chicago Rockers	1994 -1996
Continental Basketball	
Team Physician, Notre Dame High School	1984 -1985
Harper Woods, MI	
Orthopaedic Consultant, Big Ten Conference Tournament	1998 -1999
Mens Basketball, Chicago	
Medical Consultant, Chicago Motor Speedway	1999
Medical Advisory Staff, Bally Corporation	
Medical Advisory Staff, Roadway Express Corporation	1998 -2004

**HONORS**

James K. Stack Teaching Award	1988
Woodward/ White: Best Doctors in America (Midwest)	1996 -1997
Best Doctors in Chicago: <i>Chicago Magazine</i>	Jan 1997
Woodward/White: Best Doctors in America	1998 -2000

Castle Connolly Guide, <i>How To Find the Best Doctors: Chicago Metro Region</i>	1999
AOL.com Best Sports Medicine Doctor- <i>Chicago</i>	1999-2000
Castle Connolly Guide, <i>How to Find the Best Doctors Chicago Metro Region (2<sup>nd</sup> Edition)</i>	2001
America's Top Doctors – Castle Connolly Guide (1 <sup>st</sup> Edition)	2001
America's Top Doctors – Castle Connolly Guide (2 <sup>nd</sup> Edition)	2002
America's Best Doctors – Best Doctors Inc.	2001-2002
Castle Connolly Guide, <i>How To Find the Best Doctors in Chicago Metro Region (3<sup>rd</sup> Edition)</i>	2002
Northern Illinois University Athletic Hall Of Fame	2002
America's Top Doctors – Castle Connolly Guide (3 <sup>rd</sup> Edition)	2003
Consumers Checkbook Best Doctors- <i>Chicago</i>	2003
America's Best Doctors – Best Doctors Inc.	2003-2004
350 Best Doctors in Chicago – Chicago Magazine	January -2004
America's Top Doctors – Castle Connolly Guide (4 <sup>th</sup> Edition)	2004
America's Top Doctors – Castle Connolly Guide (5 <sup>th</sup> Edition)	2005
Consumers Checkbook Best Doctors- <i>Chicago</i>	2005
America's Best Doctors-Best Doctors Inc.	2005-2006
350 Best Doctors in Chicago-Chicago Magazine	January- 2006
America's Top Doctors – Castle Connolly Guide (6 <sup>th</sup> Edition)	2006
America's Top Orthopedists – Guide to America's Top Orthopedists	2007
America's Best Doctors – Best Doctor's INC	2007-2008
Consumer Checkbook Best Doctor's Chicago	2007
America's Top Doctors – Castle Connolly Guide (7 <sup>th</sup> Edition)	2007
Chicago Magazine Top Doctors	January- 2008
America's Top Orthopedists- "Guide to America's Top Orthopedists"	
Consumers Research Council of America	2008
America's Top Doctors – Castle Connolly Guide (8 <sup>th</sup> Edition)	2008
Consumers Checkbook Best Doctors- <i>Chicago</i>	2008
Chicago Magazine Top Doctors	January -2009
10 <sup>th</sup> Man Award, Senior Residents, Northwestern University Medical School, Department of Orthopaedic Surgery	2009
Best Doctors in America	2009-2010

### EDITORIAL SERVICE

Bowen MK & **Nuber GW**, Guest Editors: "Clinics in Sports Medicine, Acromioclavicular and Sternoclavicular Injuries:" Philadelphia: W.B.Saunders, April 2003, Vol.22 No.2.

### BOOK CHAPTERS

1. **Nuber, GW**, Bowen MK: "Olecranon Stress Fractures in Throwers" in Torg JS and Shephard RJ (eds.): *Current Therapy in Sports Medicine*, 3rd Edition. St. Louis: Mosby-Year Book, Inc. 1995.
2. **Nuber, GW**, Bowen MK, Schafer MF: "Diagnosis and Treatment of Lumbar and

- Thoracic Spine Injuries in Athletes” in Nicholas J and Herschman E (eds.): *The Lower Extremity and Spine in Sports Medicine*. St. Louis: Mosby-Year Book, 1995.
3. **Nuber, GW**, McCarthy WJ: “Neurovascular Disorders: Clinical Assessment & Treatment” in Jobe F, Kvitne R, Glousman R, Zemel N, and Pink M (eds.): *Upper Extremity Sports Injuries*. St. Louis: Mosby-Year Book, 1995.
  4. **Nuber, GW**, Bowen MK: “Disorders of the Acromioclavicular Joint: Pathophysiology, Diagnosis, and Management” in Iannotti JP, Williams GR (ed.): *Disorders of the Shoulder Diagnosis and Management*, Philadelphia, Lippincott Williams & Wilkins, 1999.
  5. **Nuber, GW**, Bowen MK: “Unusual Injuries to the Upper Torso in Athletes” in Arendt E (ed.): *Orthopaedic Knowledge Update: Sports Medicine*, 2nd Edition. Rosemont, IL: American Academy of Orthopaedic Surgeons, 1999.
  6. **Nuber, GW**, DeFelice A: “Proximal Humerus Fracture Open Reduction and Internal Fixation” in Stern S in *Key Techniques in Orthopaedic Surgery*, Thieme Publishers 2001, pg. 29-33.
  7. **Nuber, GW**: “Anterior Cruciate Reconstruction Two Incision in Stern S” in *Key Techniques in Orthopaedic Surgery*, Thieme Publishers 2001, pg. 167-173.
  8. DiRaimondo CA, **Nuber, GW**. “Stress Fractures of the Ulna” in *Master Cases in Sports Medicine*, Thieme Publisher, 1999.
  9. **Nuber GW**, Bowen MB: “Arthroscopic Treatment of Acromioclavicular Joint Injury and Results” *Clinics in Sports Medicine*; Philadelphia, W.B Saunders, April 2003, Vol. 22 (2), Pg. 301-317.
  10. **Nuber GW**: “Vascular Injuries of the Shoulder “In: Pocket Sports Medicine,” Eds: David J. Drez MD and Bernard Bach JR MD, April 2003.
  11. **Nuber GW**: Flannigan, DC, “Acromioclavicular Joint Pathology” in Miller M, Cole B. *Textbook of Arthroscopy*, Saunders, Philadelphia 2004
  12. **Nuber GW**, LaFosse, L: “Disorders of the Acromioclavicular Joint: Pathophysiology, Diagnosis and Management in Iannotti JP, Williams G.R. (Eds) *Disorders of the Shoulder Diagnosis and Management*.” Philadelphia 2<sup>nd</sup> Ed. Lippincott Williams & Wilkins, 2005
  13. Kodali, P. **Nuber, GW**: “Open Repair for Multidirectional Shoulder Instability in Cole, BJ. Sekiya, JK (eds) *Surgical Techniques of the Shoulder, Elbow and Knee in Sports Medicine*. Elsevier, Amsterdam, Holland, January 2008.

14. Moen, T.C; Nuber, GW: Patient Selection for the High School and Professional Athlete in Abrams, J. Education Management of the Unstable Shoulder; Arthroscopic and Open Repairs. SLACK Inc. New Jersey 2009

## PUBLICATIONS

1. **Nuber, GW**, Anderson PR: "Acute Osteomyelitis of the Metatarsal Sesamoid." *Clin Orthop and Rel Res*, 167:212, 1982
2. **Nuber, GW**, Schafer MF: "Orthopaedic Management of Adult Scoliosis." *Orthop Trans*; 8:1, 1984. *Abstract*
3. **Nuber, GW**, Schafer MF: "Orthopaedic Management of Adult Scoliosis." *Clin Orthop and Rel Res*, 208:228, 1986.
4. **Nuber, GW**, Jobe FW, Perry J, Moynes DR, Antonelli D: "Fine Wire EMG Analysis during Swimming." *American Journal of Sports Med*, 14(1):7-121, 1986.
5. Jobe FW, **Nuber, GW**: "Injuries of the Elbow in Throwers." *Clin Sports Med*, 5(4):621, 1986.
6. Shybut GT, **Nuber, GW**, Hajek MR, Hunter MB: "Effect of Anabolic Steroids on Mechanical Properties of Ligaments and Tendons." *Trans Orthop Res Soc*, Vol 10, 1986. *Abstract*
7. **Nuber, GW**, Schafer MF: "Clay Shovelers' Injuries: A Report of Two Injuries Sustained from Football." *American Journal of Sports Med*, 15(2), 1987.
8. **Nuber, GW**, Kvitne R: "Meniscal Repair." *Tech Orthop*, 2(2), 1987.
9. **Nuber, GW**: "Biomechanics of the Foot and Ankle during Gait." *Clin Sports Med*, 7(1), 1988.
10. McCarthy WJ, Yao JST, Schafer MF, **Nuber, G.W.**, Flinn WR, Blackburn D, Suker JR: "Upper Extremity Arterial Injury in Athletes." *J Vasc Surg*, 9(2):317, 1989.
11. Kaeding C, **Nuber, G.W.**: "A Biomechanical Study of Meniscal Repair." *Orthop Trans*, 12(2):544, 1988. *Abstract*
12. **Nuber, G.W.**: "Biomechanics of the Foot and Ankle during Gait." *Clin Podiatric Med Surg*, 3:614, 1989.
13. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR, Blackburn D: "Arterial Abnormalities of the Shoulder in Athletes." *American Journal of Sports Med*, 18:514,

1990.

14. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR, Blackburn D: "Arterial Abnormalities of the Hand in Athletes." *Am J Sports Med*, 18:520, 1990.
15. **Nuber G.W.**, Schafer MF, Suker JR, McCarthy WJ, Yao JST, Blackburn D: "Upper Extremity Arterial Injuries in Athletes." *Orthop Trans*, 14:2, 1990. *Abstract*
16. O'Connell PW, **Nuber, G.W.**, Maleski RA, Lautenschlager G: "The Contribution of The Glenohumeral Ligaments to Anterior Stability of the Shoulder Joint." *Am J Sports Med*, 18(6):579, 1990.
17. McCarthy WJ, Yao JST, Schafer MF, **Nuber, G.W.**, Flinn W, Blackburn D, Suker JR: "Upper Extremity Arterial Injury in Athletes." *Yearbook of Sports Medicine*. Mosby-Year Book, p.333, 1990. *Abstract*
18. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR: "Arterial Abnormalities of the Shoulder in Athletes." *Orthop Rev*, 20(4):325, 1991. *Abstract*
19. Strain JJ, Lyons JS, Hammer JS, Fahs M, Lebovits A, Paddison PL, Snyder S, Strauss E, Burton R, **Nuber, G.W.**, Abnernathy T, Sacks H, Nordlie J, Sacks C: "Cost Offset from a Psychiatric Consultation-Liaison Intervention with Elderly Hip Fracture Patients." *American Journal Psych*, 148(8):1044, 1991.
20. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR: "Arterial Abnormalities of the Shoulder in Athletes." *Yearbook of Orthopaedics*. Mosby-Year Book, p.122, 1991. *Abstract*
21. Drillings G, Swartz S, **Nuber, G.W.**: "Strain Measurements of the Undersurface of The Acromion." *Orthop Trans*, 15(3):803, 1991.
22. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR: "Arterial Abnormalities of the Shoulder in Athletes." *Yearbook of Sports Medicine*. Mosby-Year Book, p.4, 1991.
23. **Nuber, G.W.**, McCarthy WJ, Yao JST, Schafer MF, Suker JR: "Arterial Abnormalities of the Hand in Athletes." *Yearbook of Sports Medicine*. Mosby-Year Book, p.14, 1991.
24. **Nuber, G.W.**, Bowen MK: "Throwing Injuries of the Shoulder." *Chicago Medicine*, 15(10):22, 1992.
25. Gryzlo SM, **Nuber, G.W.**, Raab DJ, Lautenschlager E: "Posterior Shoulder Instability. The Contribution of the Capsule to Posterior Glenohumeral Joint Stability: A Strain Analysis in Cadaver Shoulders." *Orthop Trans*, 16(1):175, 1992.

*Abstract*

26. Parker AW, Carroll C, **Nuber, G.W.**, Gilbert JL: "The Effects of the Method of Loading and Radial Head Excision on Strain in the Medial Collateral Ligament of The Elbow." *1991 Berkheiser Prize Winner. The Proceedings of the Institute of Medicine of Chicago*, 45(2):38-44, April/June 1992.
27. **Nuber, G.W.**, Diment, M: "Olecranon Stress Fractures in Throwers: A Report of Two Cases and a Review of the Literature." *Clin Orthop and Rel Res*, 278:58-61, 1992.
28. Parker AW, **Nuber, G.W.**, Carroll C, Gilbert J: "The Effects of the Method of Loading and Radial Head Excision on Strain in the Medial Collateral Ligament of The Elbow." *Orthop Trans*, 16(2):307, 1992. *Abstract*
29. Hill JH, Diment M, **Nuber, G.W.**, Schafer MF: "Chronic Anterior Shoulder Instability. A Comparison of the Results after Modified Neer Capsular Shift and Modified Bankhart Capsular Shift." *Orthopaedic Transactions*, 16(3):761, Winter 1992-93. *Abstract*
30. **Nuber, G.W.**, Yao JTS, McCarthy WJ, Schafer MF: "Arterial Injuries of the Shoulder." *J Shoulder Elbow Surg*, 2(1):S30, January/February, 1993. (Suppl.) *Abstract*
31. Bowen MK, **Nuber, G.W.**: "Management of Associated Posterolateral Instability in Posterior Cruciate Ligament Surgery." *Operative Tech Sports Med*, 1(2), April 1993.
32. **Nuber, G.W.**, Bowen MK, Schafer MF: "Diagnosis and Treatment of Lumbar and Thoracic Spine Injuries" in Cooper DE (ed.): *Operative Tech in Sports Med*. New York: Churchill Livingstone. *In press*.
33. **Nuber, G.W.**, Diment, M: "Olecranon Stress Fractures in Throwers: A Report of Two Cases and a Review of the Literature." *Yearbook of Sports Medicine*. St. Louis: Mosby-Year Book: 71-72, 1993.
34. Kowall MG, **Nuber, G.W.**, Hendrix RW, Schafer MF, Cassisi JA: "Shoulder Arthrotomography: Operative Correlation with Emphasis on Partial-thickness Rotator Cuff Tears." *Orthop Trans*, 17(4):1025, 1993-94. *Abstract*
35. Durham JR, Yao JST, Pearce W, **Nuber, G.W.**, McCarthy WJ: "Arterial Injuries in The Thoracic Outlet Syndrome." *J Vasc Surg*, 21(1):57-70, January 1995.
36. Bresch JR, **Nuber, G.W.**: "Mechano Receptors of the Middle and Inferior Glenohumeral Ligaments." *J Shoulder Elbow Surg*, 4(1)Part Two:563-564, January/February 1995. *Abstract*

37. **Nuber, G.W.**, Bowen MK: "Instability of the Shoulder and Elbow." *Current Opinion in Orthopaedics*, 6(4):79-87.
38. Whang K, Thomas CH, Healy KE, **Nuber, G.W.**: "A Novel Method to Fabricate Bioabsorbable Scaffolds." *Polymer*, 36(4):837-842, 1995.
39. Bresch JR, **Nuber G.W.**: "Mechanoreceptors of the Middle and Inferior Glenohumeral Ligaments." *Orthop Trans*, 19(2):529, 1995. *Abstract*
40. Kowall MG, Kolk G, **Nuber, G.W.**, Cassisi JE, Stern SH: "Patellar Taping in the Treatment of Patellofemoral Pain. A Prospective Randomized Study." *Am J Sports Med*, 24(1):61-66, 1996.
41. Cappello T, **Nuber, G.W.**, Nolan KD, McCarthy WJ: "Acute Ischemia of the Upper Limb Fifteen Years after Anterior Dislocation of the Glenohumeral Joint and a Modified Bristow Procedure. A Case Report." *J Bone Joint Surg*, 78-A (10):1578-1582, 1996.
42. Neualt MA, **Nuber, G.W.**, Marymount JV: "Infections after Surgical Repair of Acromioclavicular Separations with Non-Absorbable Type of Suture." *J Shoulder and Elbow Surg*, 5(6):477-478, Nov-Dec 1996.
43. **Nuber, G.W.**, Bowen MK: "Injuries of the Acromioclavicular Joint and Fractures of the Distal Clavicle." *J Am Acad Orthop Surg*, 5(1):11-18, 1997.
44. Elenz DR, Wang K, Thomas CH, Nam EK, Tsai DC, Healy KE, **Nuber, G.W.**, Bowen MK: "Treatment of Experimental Bone Defects with Porous Bioabsorbable Copolymer Scaffolds," *Orthop Trans*, 20(3):721-722, 1996-7. *Abstract*
45. Zhang, LQ, Zang, K., Wong, G., and **Nuber, GW.**: "Dynamic and Static Properties of the Human Knee Joint in Axial Rotation." In proceedings of 19<sup>th</sup> Ann. Int. Conf. IEEE Eng. Med. Biol. Soc. Chicago, IL. 1738-1741, 1997.
46. Zhang LQ, **Nuber, G.W.**, Butler J, Bowen MK, Rymer WZ: "In Vivo Human Knee Joint Dynamic Properties as Functions of Muscle Contraction and Joint Position." *Journal Biomechanics*, 31:71-76, 1998.
47. Zhang LQ, Butler J, Nishida T, **Nuber, G.W.**, Huang H, Rymer, WZ: "In Vivo Determination of the Direction of Rotation and Moment-Angle Relationship of Individual Elbow Muscles," *ASME J Biomechanics Eng*, revision submitted, 1998.
48. **Nuber, G.W.**, Assenmacher J, Bowen MK: "Neurovascular Problems in the Forearm, Wrist and Hand." *Clinic in Sports Med*, 17(3):585-610, July 1998.
49. Butler J, Zhang LQ, **Nuber, GW**, Bowen M, Rymer W: "In Vivo Human Knee Joint

- Dynamic Properties as Functions of Muscle Contraction and Joint Position.”  
*Northwestern U Med School, Dept Orthopaedic Surgery Journal*, Vol. 3, 1998.
50. Zhang LQ, **Nuber, G.W.**, Butler J, Bowen M, Rymer WZ. “In Vivo Human Knee Joint Dynamic Properties as Functions of Muscle Contraction and Joint Position.”  
*Journal of Biomechanics*, (31), 1998, 71-76.
  51. Zhang LQ, Butler J, Nishida T, **Nuber, G.W.**, Huang H, Rymer WZ. “In Vivo Determination of the Direction of Rotation and Moment-Angle Relationship of Individual Elbow Muscles.” *Journal of Biomechanical Engineering*, Oct 1998, Vol. 120, 625-633
  52. Cummins C, Anderson K, Bowen M, **Nuber, G.W.**, Roth JI.: “Anatomy and Histological Characteristics of the Spinoglenoid Ligament.” *Journal of Bone and Joint Surgery*, Vol. 80-A, No 11, 1622-1625.
  53. Butler JP, Zhang LQ, Nishida T, **Nuber, G.W.**, Rymer WZ.: “In Vivo Determination of the Direction of Rotation and Moment-Angle Relationship of Individual Elbow Muscles.” *Orthopaedic Transactions*, Vol. 22, (1), Pg. 102, 1998-1999. *Abstract*.
  54. Wright RW, Fischer DA, Shively RA, Heidt RS, **Nuber, G.W.** “Refracture of Proximal Fifth Metatarsal (Jones) Fractures after Intramedullary Screw Fixation in Athletes.” *Orthopaedic Transactions*, Vol. 22, (1), Pg. 305, 1998-1999. *Abstract*
  55. Gourineni P, Knuth AE, **Nuber, G.W.**... “Radiographic Evaluation of the Position of Implants in the Medial Malleolus in Relation to the Ankle Joint Space: Anteroposterior compared with Mortise Radiographs.” *Journal of Bone and Joint Surgery*, Vol. 81-A, (3), Page 364-369.
  56. Zhang LQ, **Nuber, G.W.**, Wand G, Ahmad J, Chandari K, Portland G: “In Vivo Determination of Stiffness Viscosity and Upper Limb Inertia about the Glenohumeral Abduction Axis.” *Orthopaedic Transactions*, Vol. 22, (3), Pg. 734, 1998-99. *Abstract*.
  57. Zhang LQ, **Nuber, G.W.**, Wang J, Chandari K, Portland G, Nishidi T: “Mechanical Actions of Individual Shoulder Muscles.” *Orthopaedic Transactions*, Vol. 22, (3), Pg. 734-735, 1998-99. *Abstract*.
  58. **Nuber, G.W.**, Zhang LQ, Huang H, Bowen MK, Rymer WZ: “Patellar Tendon Reflex Following ACL Injury and Reconstruction.” *Orthopaedic Transactions*, Vol. 22, No. 3, Pg. 774-775, 1998-99. *Abstract*.
  59. **Nuber, G.W.**, Zhang LQ, Wand G, Huang H, Butler J: “Muscle Strength of ACL Chronically Injured, Acutely Injured, Reconstructed and Uninjured Knees.”  
*Orthopaedic Transactions*, Vol. 22, (3), Pg.856-857, 1998-99. *Abstract*.

60. Anderson K, Bowen MK, Posewick JL, **Nuber, G.W.**... "Outcome of Distal Clavicle (Type II) Fractures Treated Non-Operatively." *Orthopaedic Transactions*, Vol. 22(4) Pg 1093-94 *Abstract* 1998-99.
61. Gourineni P, **Nuber, G.W.**, Knuth A. Evaluation of Medial Malleolar Screw Position in Relation to the Ankle Joint Space on the Antero-Posterior and Mortise View. "Orthopaedic Transactions," Vol. 22(4) Pg. 1096 *Abstract* 1998-99.
62. Butler J, Zhang LQ, **Nuber G.W.**, Rymen WZ. Muscle Compensation for ACL Injury An In Vivo Analysis. "Orthopaedic Transactions," Vol. 22(4) Pg. 1104 *Abstract* 1998-99.
63. Whang K, Healy KE, Elenz DR, Nam EK, Tsai DC, Thomas CH, **Nuber, G.W.**, Glorieux FH, Travers R, Sprague SM: "Engineering Bone Regeneration with Bioabsorbable Scaffolds with Novel Microarchitecture" *Tissue Eng*, 5(1):35-51 1999.
64. Zhang LQ, **Nuber, G.W.**, Portland G, Wang G, Ahmad J, Chandari K: "Stiffness Viscosity Upper Limb Inertia about the Gleno Humeral Joint." *Journal of Orthopedic Research*, Vol. W9 8-11, 1999.
65. Anderson K, Bowen MK, **Nuber, G.W.**... "Outcome of Distal Clavicle Fracture (Type II) Treated Non-Operatively." *Journal of Shoulder and Elbow Surgery*, Vol. 8(6) Pg 666 November, December 1999. *Abstract*.
66. Zhang LQ, **Nuber, G.W.** "Moment distribution among human elbow extensor muscles during isometric and sub maximal extension." *Journal of Biomechanics* Vol. 33 Pg 145-154, (2000).
67. Zhang LQ, Portland GH, Wang G, DiRaimondo CA, **Nuber G.W.**, Bowen MK, Hendrix, R.W. "Stiffness, Viscosity, and Upper-Limb Inertia about the Gleno-humeral Abduction Axis." *Journal of Orthopaedic Research*, W98-118.
68. Cummins C, Messer T, **Nuber G.W.**: "Supracapular Nerve Entrapment." *Journal of Bone and Joint Surgery, Current Concepts* Vol. 82A (3) Pg. 415-424, March 2000.
69. Wright RW, Fischer DA, Shively RA, Heidt RS, **Nuber G.W.**: "Re-fracture of Proximal Fifth Metatarsal (Jones) Fracture after Intra Medullary Screw Fixation in athletes." *American Journal of Sports Medicine*, Vol. 28(5) Pg 732-736, Sept/Oct. 2000.
70. Zhang L.Q., **Nuber G.W.**, Bowen MK, Koh J, Bulter JP: Multis Axis Muscle Strength in Anterior Cruciate Ligament Injured and Reconstructed Knees. *Compensatory Mechanism, Med. Science Sports Exercise*, Vol. 34 Pg. 2-8, February 2001.
71. Makhsous, M., Lin F., Koh JL., **Nuber G.W.** Zhang LQ: "In Vivo and Non-Invasive Load Sharing among the Vasti in Patellar Malalignment" *Medicine & Science in Sports & Exercise*. Vol. 36 (10) Oct. 2002 Pg.1768-1775.

72. Zhang L.Q., Wang G., **Nuber, G.W.**, Press JM, Koh JC: In Vivo Load Sharing Among the Quadriceps Components. *Journal of Orthopaedic Research*. 21 (2003) Pg. 565- 571.
73. Zhang, LQ, Fang, D., Lin, F., Makhsous, M., Koh, JL., Hendrix, RW, **Nuber, GW**: “Non-Contact ACL Injuries: Impingement vs. Direct Stretch.” *Journal of Orthopaedic and Sports Physical Therapy*. Vol. 33 (2003) A17-18.
74. Nam, EL., Makhsous, M., Koh, JL., Bowen, MK., **Nuber, GW**, Zhang, LQ. “Biomechanical and Histological Evaluation of Osteochondral Transplantation in a Rabbit Model. *American Journal of Sports Medicine*. Vol. 32 (2), March 2004 Pg. 308 -316.
75. Guelich, David RF, David. Koh, JL. **Nuber, GW**. Zhang, LQ. “The Hamstring Muscles and ACL Strain: A Cadaveric Model Examining the Effect of Independently Loading the Lateral and Medial Hamstrings on ACL Strain submitted “*Journal of Bone and Joint Surgery*.
76. Kohli, N., **Nuber, G.W.**, Makhsous, M., Koh, J., Schofer, D., “Dynamic Stability of the Elbow: A Biomechanical Study of Muscle Contribution to Valgus Stability” *Journal of Shoulder and Elbow Surgery*. Vol. 16 (2), (2007) E54-55.
77. Lin, F., Kohli, N., Perlmutter, S., Lim, D., **Nuber, G.W.**, Makhsous, M., “Muscle Contribution to Elbow Joint Valgus Stability” *Journal of Shoulder and Elbow Surgery*. Vol. 6 November/December 07 Pg. 795-802
78. Hsu, J.E. Peng, Q, Schafer, D.A., Kohn, J.C., **Nuber, G.W.**, Zhang, L.Q., " In Vivo- Three Dimensional Mechanical Actions of Individual Flexor-Pronator muscles: Role in Elbow Valgus Stability" *Journal of Applied Biomechanics*. November 2008, Vol. 24 - 4, Pg. 325 – 332.
79. Brander, V., Bowen, M., Chambers, M., Gomberwalla, A., **Nuber, G.W.**, “Prospective, Single Arm Pilot Study Evaluation.” The Safety and Efficacy of Two Hylan G-F 20 Injections in Patients with Advanced Painful Glenohumeral Osteoarthritis with or without Rotator Cuff Tear.” *Archives of Physical Medicine and Rehabilitation*; Vol. 89, Issue 11, Pg. E 37, November 2008,
80. Yang, S., Park, Huang- Soon., Flores, S., Levin, S., Makhsous, M., Lin, F., Koh, J., **Nuber, G.W.**, Zhang, L., Biomechanical Analysis of Bursal-Sided Partial Thickness Rotator Cuff Tears. Accepted by *Journal of Shoulder and Elbow Surgery* 2009. May/June. Vol.8: 379-385.
81. Saltzman, M., **Nuber, G.W.**, Gryzlo, S., Marecek, G., Koh, J. “ Efficacy of Surgical Preparation Solutions in Shoulder Surgery.” *JBJS* Vol. 91-A No. 8, 1949-1953, August 2009

82. Lin F., Wilson, N.A., Makhsous, M., Press, J.M., Koh, J.C., **Nuber, G.W.**, Zhang, C.Q., “In Vivo Patellar Tracking Induced by Individual Quadriceps Components in Individuals with Patellofemoral Pain.” *Accepted by Journal of Bio Mechanics.*

83. Brander, V.A., Gomberwalla, A., Chambers, M., Bowen, M., **Nuber, G.W.** “Efficacy and safety of Hylan G-F 20 for Symptomatic Glenohumeral Osteoarthritis: A Prospective, Pilot Study” Accepted by, *Physical Medicine and Rehabilitation.*

84. Capito, R., Shah, N., DelRosario, M., Nuber, G.W., Stupp, S., “Supramolecular Design of Self Assembly Nanofibers for Cartilage Regeneration” Submitted to, *Proceedings of the National Academy of Surgeries of the United States of America.*

85. Shah, NA., Capito, R.M, Nuber, G.W. Stupp, S.I., “Self Assembling Peptide Amphiphiles: A Novel Bio-Active 3D Nanofiber Adjunct for Cartilage Regeneration. Accepted by, *American Journal of Sports Medicine*

### **PAPERS PRESENTED AT SCIENTIFIC MEETINGS**

1. **Nuber, GW**, Tachdjian MO: “Congenital High Scapula.” *Eleventh Pediatric Orthopaedic International Seminar*, Chicago IL, May 1983.
2. **Nuber, GW**: “Surgical Management of Adult Scoliotic.” *Scoliosis Research Society*, New Orleans LA, Oct 1983.
3. **Nuber, GW**: “Drug Therapy in Athletic Injuries.” *Fifth Annual Sports Medicine Symposium (Centinela Hospital Medical Center and National Athletic Health Institute)*, Inglewood CA, Apr 1984.
4. **Nuber, GW**: “Fine Wire EMG Analysis of the Shoulder During Swimming.” *American Orthopaedic Society for Sports Medicine*, Las Vegas NV, Jan 1985.
5. **Nuber, GW**: “Orthopaedic Management of Work and Accident Related Knee Injuries.” *International Rehabilitation Association, Inc., Rehabilitation Services of Canada*, Southfield MI, April 1985.
6. **Nuber, GW**: “Sports Injuries.” *American Academy of Orthotists and Prosthetists Midwest Chapter Fall Continuing Education Seminar*, Chicago IL, Nov 1985.
7. Hunter MB, Shybut GT, **Nuber, GW**, Hajek, MR, Nagle DJ: “The Effects of Anabolic Steroids on the Mechanical Properties of Tendons and Ligaments.” *Orthopaedic Research Society*, New Orleans LA, Feb 1986.
8. **Nuber, GW**: “Fine Wire EMG Analysis of the Shoulder During Swimming.” *Chicago Orthopaedic Society Meeting*, Chicago IL, Mar 1986.
9. **Nuber, GW**: “Throwing Injuries of the Elbow.” *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1986.

10. **Nuber, GW:** "Shoulder Instability." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1986.
11. **Nuber, GW:** "Non-traumatic Orthopaedic Surgery." *Cook County Graduate School of Medicine- Specialty Review in General Surgery*, Chicago IL, Feb 1987.
12. **Nuber, GW:** "Overuse Injuries of the Shoulder." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1987.
13. **Nuber, GW:** "Injuries of the Elbow." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1987.
14. Kaeding C, Kvitne R, Grayhack J, Lautenschlager E, **Nuber, GW:** "A Biomechanical Study of Meniscal Repairs." *American Orthopaedic Association- Resident's Conference*, Boston MA, Mar 1988.
15. McCarthy WJ, Yao JST, Schafer MF, **Nuber, GW**, Flinn W, Blackburn D, Suker J: "Upper Extremity Arterial Injury in Athletes." *Thirty-sixth Annual Meeting of the International Society for Cardiovascular Surgery*, Chicago IL, June 1988.
16. Patek R, **Nuber, GW**, Lautenschlager E, Reilly J: "The Effect of the Anterior Cruciate Ligament and Substitute Graft Placements on Tibiofemoral Contact Stress in the Human Cadaver Knee." *American Orthopaedic Association Winner of Zimmer Award*, The Homestead VA, June 1988.
17. **Nuber, GW:** "Elbow Sports Injuries." *Seminar in Sports Trauma Sponsored by the Chicago Committee on Trauma, The Illinois Athletic Trainers Association, and Northwestern University*, Chicago IL, Aug 1988.
18. **Nuber, GW:** "Elbow Injuries." *Cook County Graduate School of Medicine- Sports Medicine for the Primary Care Physician*, Chicago IL, Nov 1988.
19. **Nuber, GW:** "Discogenic Back Pain." *Rehabilitative Sports Medicine Focus on the Spine in Sports*, Chicago IL, Dec 1988.
20. **Nuber, GW:** "Scheuermann's Disease." *Rehabilitative Sports Medicine Focus on the Spine in Sports*, Chicago IL, Dec 1988.
21. O'Connell P, **Nuber, GW**, Mileski R, Lautenschlager E: "The Contribution of the Glenohumeral Ligaments to Anterior Stability of the Shoulder Joint." *American Orthopaedic Society for Sports Medicine*, Las Vegas NV, Feb 1989.
22. **Nuber, GW:** "Elbow Injuries in Gymnastics." *The Elbow in Athletics. The American Academy of Orthopaedic Surgeons*, Chicago IL, Apr 1989.

23. **Nuber, GW:** "Football Lineman's Elbow." *The Elbow in Athletics, American Academy of Orthopaedic Surgeons*, Chicago IL, Apr 1989.
24. **Nuber, GW:** "Ulnar Nerve Transfer." *The Elbow in Athletics, American Academy of Orthopaedic Surgeons*, Chicago IL, Apr 1989.
25. **Nuber, GW:** "Correlation of Classification of Knee Ligament Instability." *The Athletes Knee, American Academy of Orthopaedic Surgeons*, Chicago IL, June 1989.
26. **Nuber, GW:** "Diagnosis of Isolated Posterior Cruciate Ligament Tears." *The Athletes Knee. American Academy of Orthopaedic Surgeons*, Chicago IL, June 1989.
27. **Nuber, GW, McCarthy WJ, Yao JST, Schafer MF:** "Arterial Injuries of the Upper Extremity of Athletes." *American Orthopaedic Society for Sports Medicine*, Traverse City MI, June 1989.
28. **Karzel R, Nuber, GW, Lautenschlager EP:** "The Role of the Glenoid Labrum in Pressure Distribution of the Shoulder Joint." *Winner of the Dr. and Mrs. Elvin J. Berkheiser Award, Chicago Institute of Medicine*, Chicago IL, May 1989.
29. **Nuber, GW:** "Rotator Cuff Impingement." *Zimmer-Central Residents Program*, Chicago IL, Aug 1989.
30. **Nuber, GW:** "Acromioclavicular Joint Separations." *Zimmer-Central Residents Program*, Chicago IL, Aug 1989.
31. **Nuber, GW:** "Common Elbow Problems in the Throwing Athlete." *Zimmer-Central Residents Program*, Chicago IL, Aug 1989.
32. **Nuber, GW:** "Arterial Injuries of the Upper Extremity in Athletes." *Irish-American Orthopaedic Association*, Chicago IL, Sept 1989.
33. **Nuber, GW:** "Injuries of the Elbow." *Sports Medicine for the Primary Care Physician, Cook County Graduate School of Medicine*, Chicago IL, Nov 1989.
34. **Nuber, GW:** "Role of the Glenoid Labrum in the Throwing Shoulder." *Association Of Major League Baseball Physicians*, Nashville TN, Dec 1989.
35. **Nuber, GW:** "Collateral Ligament Injuries of the Elbow." *Rehabilitation Sports Medicine II: The Upper Extremity in Sports*, Chicago IL, Dec 1989.
36. **Nuber, GW:** "Elbow Injuries in Gymnasts." *Rehabilitation Sports Medicine II: The*

- Upper Extremity in Sports*, Chicago IL, Dec 1989.
37. **Nuber, GW**: "Shoulder Arthroscopy." *Rehabilitation Sports Medicine II: The Upper Extremity in Sports*, Chicago IL, Dec 1989.
  38. **Nuber, GW**: "Neuromuscular Syndromes." *Rehabilitation Sports Medicine II: The Upper Extremity in Sports*, Chicago IL, Dec 1989.
  39. **Nuber, GW**: "Functional Anatomy of the Shoulder- New Studies." *Joe W. King Lectureship, Baylor College of Medicine: Injuries to the Throwing Shoulder and Elbow. New Concepts in Care*, Houston TX, Oct 1990.
  40. **Nuber, GW**: "Vascular and Neurological Compression Syndromes About the Shoulder." *Joe W. King Lectureship, Baylor College of Medicine: Injuries to the Throwing Shoulder and Elbow. New Concepts in Care*, Houston TX, Oct 1990.
  41. **Nuber, GW**: "Knee Stability- Collateral Ligaments." *Rehabilitation Sports Medicine III: The Lower Extremity in Sports*, Chicago IL, Dec 1990.
  42. Drillings G, **Nuber, GW**, Swartz S: "Strain Measurements of the Undersurface of the Acromion." *American Academy of Orthopaedic Surgeons*, Anaheim CA, Mar 1991.
  43. Gryzlo SM, **Nuber, GW**, Raab DJ, Lautenschlager EP: "The Contribution of the Capsule to Posterior Glenohumeral Joint Stability: A Strain Analysis in Cadaver Shoulders." *Mid-America Orthopaedic Association*, Palm Springs CA, Apr 1991.
  44. **Nuber, GW**: "Impingement Syndrome and Rotator Cuff Problems in Athletes." *Fourth Annual Sports Medicine Institute, Primary Care Sports Medicine for the Knee. Northern Illinois University*, Chicago IL, Aug 1991.
  45. Hill J, Diment M, **Nuber, and GW**: "Chronic Anterior Shoulder Instability: A Comparison of the Results after Modified Neer Capsular Shift and Modified Bankhart 'T' Capsular Shift." *American Shoulder and Elbow Surgeons Members Meeting*, Seattle WA, Sept 1991.
  46. **Nuber, GW**: "Surgical Management of Patelofemoral and Meniscal Disorders." *Selective Lower Extremity Injuries in Sports. American Academy of Physical Medicine and Rehabilitation Annual Meeting*, Washington DC, Oct 1991.
  47. **Nuber, GW**: "Surgical Management of Anterior Cruciate Ligament Disorders." *American Academy of Physician Medicine and Rehabilitation Annual Meeting*, Washington DC, Oct 1991.
  48. **Nuber, GW**: "Injuries of the Elbow." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1991.

49. **Nuber, GW:** "Physical Examination of the Shoulder." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1991.
50. **Nuber, GW:** "Athletic Braces." *Cook County Graduate School of Medicine- Sports Medicine*, Chicago IL, Nov 1991.
51. **Nuber, GW:** "Shoulder Surgery." *National Association of Orthopaedic Nurses- Chicago Chapter*, Chicago IL, Nov 1991.
52. Parker A, **Nuber, GW**, Carroll C, Gilbert J: "The Effects of the Method of Loading and Radial Head Excision on Strain in the Medial Collateral Ligament of the Elbow." *Louisiana Orthopaedic Society*, New Orleans LA, November 1991.
53. **Nuber, GW**, Yao JST, McCarthy WJ, Schafer MF: "Arterial Injuries of the Shoulder." *American Shoulder and Elbow Surgeons*, Vail CO, Sept 10-12 1992.
54. **Nuber, GW:** "Neurovascular Injuries of the Shoulder." *1992 Sports Medicine Institute, North Central College Center for Continuing Education*, Chicago IL, Oct 29-30 1992.
55. **Nuber, GW:** "Athletic Knee Injury: Orthotic Management." *Upper and Lower Limb Orthotics and Prosthetics for Physicians, Northwestern University Prosthetics and Orthotics Center*, Chicago IL, Nov 5 1992.
56. **Nuber, GW:** "The Shoulder and the Elbow in the Young Athlete." *Rehabilitation Sports Medicine V: The Young Athlete*, Chicago IL, Dec 10-12 1992.
57. **Nuber, GW:** "Case Controversies: Glenohumeral Instability." *American Academy Of Orthopaedic Surgeons Instructional Courses*, San Francisco CA, Feb 18 1992.
58. Kowall MG, **Nuber, GW**, Hendrix R, Schafer MF: "Shoulder Arthrotomography: Operative Correlation with Emphasis on Partial-Thickness Rotator Cuff Tears." *American Academy of Orthopaedic Surgeons 60th Annual Meeting*, San Francisco CA, Feb 20 1993.
59. Kowall MG, Kolk G, **Nuber, GW**, Cassisi JE, Stern S: "Patellar Taping in the Treatment of Patellofemoral Pain: A Prospective Randomized Study." *American Orthopaedic Society for Sports Medicine*, San Francisco CA, Feb 21 1993.
60. **Nuber, GW:** "Upper Extremity Injuries in Professional Athletes." *National Association of Nurses*, Rolling Meadows IL, Mar 8 1993.
61. **Nuber, GW:** "Open vs. Arthroscopic Approach to Correcting Shoulder Instability." *The Team Approach to Treatment of Shoulder Girdle/ Joint Conditions, National Athletic Trainer's Association 44th Annual Meeting*, Kansas City MO, June 12 1993

62. **Nuber, GW:** "Athletic Injuries of the Shoulder and Knee." *Orthopaedic Nursing, National Center for Advanced Medical Education, Chicago IL, June 21 1993.*
63. **Nuber, GW:** "Complications Related to Sternoclavicular and Acromioclavicular Injuries." *The American Orthopaedic Society for Sports Medicine Annual Meeting, Sun Valley ID, July 12 1993.*
64. **Nuber, GW:** "Bracing and Taping in Athletics." *Chicago O'Hare Football Clinic, Rosemont IL, Jan 22 1994.*
65. Durham JR, Yao JST, Pierce WH, **Nuber, GW**, McCarthy WJ: "Arterial Injuries in the Thoracic Outlet Syndrome." *Society for Vascular Surgery/ North American Chapter, International Society for Cardiovascular Surgery, Seattle WA, June 6-9 1994.*
66. **Nuber, GW:** "Athletic Injuries to the Shoulder." *Orthopaedic Nurses Conference, National Center for Advanced Medical Education, Chicago IL, Aug 3 1994.*
67. **Nuber, GW:** "Sports Specific Injuries: Football." *Chicago Sports Medicine Society, Chicago IL, Sept 15 1994.*
68. **Nuber, GW:** "Instability: Diagnostic Techniques, Clinical Evaluation" for "Surgical Techniques for the Management of the Painful Shoulder: Rotator Cuff-Arthroscopic Techniques." *American Academy of Orthopaedic Surgeons, Rosemont IL Nov 18 1994.*
69. Zheng L, Rymer WZ, **Nuber, GW:** "Load Sharing Among Muscles and Dynamic Relationships Between Multi-muscle EMGs and Isometric Joint Movement." *Proceedings of the 17th Annual International Conference, IEEE Eng Med Biol Soc, Montreal Canada, 1995.*
70. Cheng L, Nishida T, Butler J, **Nuber, GW**, Rymer WZ: "In Vivo Measurement of the Muscle Direction of Rotation across the Range of Elbow Flexion." *Proceedings of the 18th Annual Meeting of the American Society of Biomechanics, Stanford CA, 1995.*
71. **Nuber, GW:** "Acromioclavicular Joint Injuries: Current Concepts" for "Arthroscopic and Open Approaches to Shoulder Surgery: The Debate Continues." *American Academy of Orthopaedic Surgeons, Rosemont IL, Nov 12 1995.*
72. **Nuber, GW:** "Knee Bracing in Sports- What Do I Do?" *Rehabilitation Sports Medicine VIII: Controversies in Sports Medicine, Chicago IL, Dec 14-16 1995.*
73. **Nuber, GW:** "Vascular Disorders of the Shoulder in the Throwing Athlete." *Baseball Medicine: Injury Prevention and Treatment Techniques, San Diego CA,*

Jan 12 1996.

74. **Nuber, GW**, Fronck J: "Upper Extremity Examination." *Baseball Medicine: Injury Prevention and Treatment Techniques*, San Diego CA, Jan 13 1996.
75. Healy KE, Elenz DR, Whang K, Thomas CH, Tsai DC, Nam EK, **Nuber, GW**, Bowen MK: "Bone Regeneration Employing Bioabsorbable Scaffolds with Unique Microarchitecture." *1996 Keystone Symposia Conference on Tissue Engineering*, Taos NM, Jan 23-29 1996.
76. **Nuber, GW**: "Tibial Stress Fracture: Case Report." *NFL Team Physicians and Athletic Trainers Reception, Dinner, and Scientific Meeting*, Indianapolis IN, Feb 9 1996.
77. Elenz DR, **Nuber, GW**, Bowen MK, Healy KE, Tsai DC, Whang K, Thomas CH, Nam EK. "Treatment of Experimental Bone Defects with Porous Bioabsorbable Copolymers." *Forty Second Annual Meeting of the Orthopaedic Research Society*, Atlanta Georgia, February 1996.
78. Elenz DR, Healy KE, **Nuber, GW**, Bowen MK: "Treatment of Experimental Bone Defects with Porous Bioabsorbable Copolymers." *Mid-American Orthopaedic Association, 14th Annual Meeting*, San Antonio TX, Apr 26 1996.
79. Whang K, Elenz DR, Nam EK, Tsai DC, Thomas CH, **Nuber, GW**, Bowen MK, Healy KE: "Bone Regeneration Using Emulsion Freeze-dried PLGA Scaffolds with Median Pore Sizes Less than 50 Micrometers." *Fifth World Biomaterials Congress*, Toronto Canada, May 26-June 2 1996.
80. **Nuber, GW**: "Open Stabilization of the Shoulder." *17th Annual Sports Medicine Physician-therapist Team Concept Conference*, Oak Brook IL, Oct 11-13 1996.
81. **Nuber, GW**: "Arthroscopic Stabilization of the Shoulder." *Strategic Management of the Shoulder: Rotator Cuff, Instability and Decompression*, American Academy of Orthopaedic Surgeons, Rosemont IL, Nov 8-10 1996.
82. **Nuber, GW**: "To Play or Not to Play - Decision for the Team Physician." *Rehabilitative Sports Medicine IX – Controversies in Sports Medicine II*, Chicago, IL, Nov 8-10 1996.

#### **PRESENTATIONS (Cont'd)**

83. **Nuber, GW**: "Neuro/ Vascular Problems in Baseball." *Injury Prevention and*

- Treatment Techniques. Baseball Team Medicine 11th Annual Conference, Chicago IL, Jan 16-19 1997.*
84. **Nuber, GW**: “Exam/ Upper Extremities Clinic.” *Injury Prevention and Treatment Techniques. Baseball Team Medicine 11th Annual Conference, Chicago IL, Jan 16-19 1997.*
  85. Brown C Jr, Schnoll S, Spitafora R, Browne J, McShane J, **Nuber, GW**: “Six Common Beliefs about Analgesic Use in the NFL.” *1997 NFL Physicians Society Sports Science Symposium, Indianapolis IN, Feb 7 1997.*
  86. Kumamoto D, Douglas S, **Nuber, GW**: “Sports Medicine from Head to Toe.” *32nd Midwinter Meeting, Chicago Dental Society, Chicago IL, Feb 20-23 1997.*
  87. **Nuber, GW**: “Rotator Cuff Injuries.” *Sports Medicine 1997: An NFL Perspective, San Francisco CA, May 9-11 1997.*
  88. **Nuber, GW**: “Acromioclavicular Joint Injuries: Current Concepts” for “Open and Arthroscopic Shoulder Surgery: Current Concepts and Techniques.” *American Academy of Orthopaedic Surgeons, Rosemont IL, July 11-13, 1997.*
  89. **Nuber, GW**: “Medial Approach to the Capsule” for “Reconstructive Surgery of the Elbow: Techniques, Trauma Management, and Fixation.” *American Academy of Orthopaedic Surgeons, Rosemont IL, Oct 17-19 1997.*
  90. Zhang L, Butler J, Wang G, **Nuber, GW**, Zeng K, Rymer WZ: “Mechanical Actions Of Individual Muscles at the Human Knee Joint.” *Proceeding of the 21st Annual Meeting of the American Society of Biomechanics, Clemson SC, September 24-27 1997.*
  91. Zhang L, Wang G, **Nuber, GW**: “Knee Muscle Strength in Abduction-Adduction and Flexion-Extension.” *Proceedings of the 21st Annual Meeting of the American Society of Biomechanics, Clemson SC, Sept 24-27 1997.*
  92. Zhang LQ, Zeng K, Wang G, **Nuber, GW**: “Dynamic and Static Properties of the Human Knee Joint in Axial Rotation.” *Proceedings of the 19th International Conference- Institute of Electronic and Electric Engineering/ Engineering in Medical and Biological Society, Chicago IL, October 30- November 2, 1997.*
  93. **Nuber, GW**: “AC Joint Dislocations and Distal Third Fractures: Surgical Indications and Techniques” for “Open and Arthroscopic Shoulder Surgery: Current Concepts and Techniques #420.” *American Academy of Orthopaedic Surgeons, Rosemont IL, Dec 5-7 1997.*

## **PRESENTATIONS (Cont'd)**

94. **Nuber, GW**: “AC Joint Dislocations and Distal Third Fractures: Surgical Indications and Techniques” for “One-day Shoulder ‘Course within a Course,’ #422. *American Academy of Orthopaedic Surgeons*, Rosemont IL, Dec 6 1997.
95. **Nuber, GW**: “Evaluation of the Acutely Injured Knee.” *Rehabilitation Sports Medicine X: Sports Specific Injuries*, Chicago IL, Dec 11 1997.
96. **Nuber, GW**: “Diagnosis and Treatment of the Shoulder Instability.” *Rehabilitation Sports Medicine X: Sports Specific Injuries*, Chicago IL, Dec 12 1997.
97. **Nuber, GW**: “Athletic Injuries of the Elbow.” *Pinky Newell Lecture: Great Lakes Athletic Trainers Association Winter Meeting*, St. Charles IL, Mar 13 1998.
98. Zhang LQ, **Nuber, GW**, Portland G, Wang G, Ahmad J, Chunduri K: “In Vivo Determination of Stiffness, Viscosity and Upper Limb Inertia About the Glenohumeral Abduction Axis.” *American Academy of Orthopaedic Surgeons 65th Annual Meeting*, New Orleans LA, Mar 19-23 1998.
99. Zhang LQ, **Nuber, GW**, Wang G, Portland G, Ahmad J, Chunduri K, Nishida T: “Mechanical Actions of Individual Shoulder Muscles.” *American Academy of Orthopaedic Surgeons 65th Annual Meeting*, New Orleans LA, Mar 19-23 1998.
100. Butler J, Zhang LQ, Nishida T, **Nuber, GW**, Rymer WZ: “In Vivo Determination of the Direction of Rotation and Moment-Angle Relationship of Individual Elbow Muscles.” *American Academy of Orthopaedic Surgeons 65th Annual Meeting*, New Orleans LA, Mar 19-23 1998.
101. Wright RW, Fischer DA, Shively RA, Heidt RS, **Nuber, GW**: “Refracture of Fifth Metatarsal (Jones) Fractures Following Intramedullary Screw Fixation.” *American Academy of Orthopaedic Surgeons 65th Annual Meeting*, New Orleans LA, Mar 19-23 1998.
102. **Nuber, GW**, Bream T: “Clavicle Fractures in Professional Football Players.” *American College of Sports Medicine: Share the Experience*, Chicago IL, Mar 28 1998.
103. **Nuber, GW**: “Acromioclavicular Disease: History & Physical Examination-Classification Schemes.” *Midwest Sports Medicine and Orthopaedic Institutes: Sports Injuries of the Knee and Shoulder: Evaluation and Treatment*, DeKalb IL, Apr 17-18 1998.
104. **Nuber, GW**: “Treatment of Acromioclavicular Disease.” *Midwest Sports Medicine and Orthopaedic Institutes: Sports Injuries of the Knee and Shoulder: Evaluation and Treatment*, DeKalb IL, Apr 17-18 1998.

**PRESENTATIONS (Cont'd)**

105. Anderson K, Bowen MK, **Nuber, GW**, Posewick J: "Outcome of Distal Clavicle (Type II) Fractures Treated Non-Operatively." *Mid-America Orthopaedic Association 16th Annual Meeting*, Acapulco, Mexico, April 22-26 1998.
106. Gourineni PV, **Nuber, GW**, Knuth A: "Evaluation of Medial Malleolar Screw Position in Relation to the Ankle Joint Space on the Antero-Posterior and the Mortise Views." *Mid-America Orthopaedic Association 16<sup>th</sup> Annual Meeting*, Acapulco, Mexico, April 22-26 1998.
107. Butler J, Zhang LQ, **Nuber, GW**, Rymer WZ: "Muscle Compensation for ACL Injury, An In Vivo Analysis." *Mid-America Orthopaedic Association 16th Annual Meeting*, Acapulco, Mexico, April 22-26 1998.
108. Gourineni PV, **Nuber, GW.**, Knuth A: "Evaluation of Medial Malleolar Screw Position in Relation to the Ankle Joint Space on the Antero-Posterior and the Mortise Views." *Mid-America Orthopaedic Association 16th Annual Meeting*, Acapulco, Mexico, April 22-26 1998.
109. Anderson K, Bowen MK, **Nuber, GW**, Posewick JL: "Outcome of Distalclavicle (Type II) Fractures Treated Nonoperatively." *American Academy of Orthopaedic Surgeons Comprehensive Shoulder and Elbow Course and ASES First Open Shoulder and Elbow Meeting #425*, Kiawah Island SC, April 23-26 1998.
110. Guangchi, Wang, Zhang Li Quan, Hendrix Ronald, Portland Gregory, **Nuber GW**, Press J: "In Vivo 3D Patellar Tracking Induced by Quadriceps components." *North American Congress on Biomechanics*. University of Waterloo, pg. 14-18, 98.
111. **Nuber, GW**: Anderson K, Bowen MK: "Outcome of Distal Clavicle Fractures (Type II) Fractures Treated Nonoperatively." *Fifteenth Annual American Shoulder and Elbow Surgeons Closed Meeting*, New York, NY, Nov 5-8 1998.
112. **Nuber, GW**: "Management of Acromioclavicular Injuries Current Techniques in Open and Arthroscopic Shoulder Surgery." *American Academy of Orthopaedic Surgeons Orthopaedic Learning Center*, Rosemont, IL, Nov 13-15 1998.
- 113 **Nuber, GW**: "Office Evaluation and Treatment of Orthopaedic Injuries." *Chicago Medical Society, 1999 Midwest Clinical Conference*, Chicago, IL. February 27, 1999.

114. Cummins Craig A, Anderson Kyle, Bowen MK, **Nuber, GW**: “Anatomy of the Spinoglenoid Ligament.” *Mid American Orthopaedic Association*, Bermuda, Southampton Princess, April 15, 1999.
115. **Nuber, GW**: “Rotator Cuff Injuries.” *Sports Medicine 1999, An NFL Perspective*, Bal Harbour, FL. May 7-9, 1999.
116. **Nuber, GW**: “Knee/Ankle Bracing. An NFL Perspective, Symposium VI, Knee and Ankle Bracing in Sports: An Update.” *112<sup>th</sup> Annual Meeting of the American Orthopaedic Association*, Sun Valley, Idaho, June 8, 1999.
117. **Nuber, GW**: “Arthroscopic Knot Tying. Open and Arthroscopic Shoulder Surgery Approaches for the New Millennium. American Academy of Orthopaedic Surgeon, Bernard R. Boch, Kevin P. Speer; Course Chairman, Rosemont, IL Dec 10, 1999
118. **Nuber, GW**, Tim Bream MS ATC, Bowen MK: “Superior Labral Lesion in a Professional Football Quarterback.” *NFL Team Physicians and Athletic Trainers Scientific Meeting*, Indianapolis, Indiana, February 25, 2000.
119. **Nuber, GW**, Malcowic R.C., Beiser D, Kuczanski: Outcome after treatment of *Calcific Tendonitis* with Fluoroscopic Guided Aspiration and Corticosteroid injection. *Mid America Orthopaedic Association*. Scottsdale, Arizona April 29, 2000.
120. **Nuber, GW**: NFL Injury Statistics. *American Academy of Sports Dentistry*. Chicago, Illinois, June 9, 2000.
121. **Nuber, GW**: Mini Open Rotator Cuff Repair Techniques in Shoulder Surgery. *26<sup>th</sup> Annual Summer Institute. American Academy of Orthopaedic Surgery*. Toronto, Canada, September 8, 2000.
122. **Nuber, GW**: “The Responsibilities of a Team Physician; Caring for Your Players.” To end career endus start here. *Cerle Foundation Hospital*. University of Illinois. Urbana, Illinois. December 8-9, 2000.
123. **Nuber, GW**: “Rotator Cuff Injuries.” *Sports Medicine 2001: An NFL Perspective* Baltimore Hotel, Phoenix, Arizona. May 11, 2001.
124. Bowen MK, Rettig A, Connor P, **Nuber, GW**: “Complex Shoulder and Elbow Injuries.” *Sports Medicine 2001: An NFL Perspective*. Baltimore Hotel, Phoenix, Arizona. May 11, 2001.
125. **Nuber, GW**: “Shoulder Instability: Conservative vs. Surgical Treatment.” *Sports Medicine and Hockey – A Summit for the NHL and Beyond*. Hilton Hotel, Toronto, Canada. August 24, 2001.

126. **Nuber, GW:** "Clavicle Fractures" *Summer Institute 2001 Techniques in Shoulder Surgery*. San Diego, California. September 6-7, 2001.
127. **Nuber, GW:** "Calcific Tendonitis, Comprehensive Surgery of the Athletes Shoulder." *American Orthopedic Society for Sports Medicine Surgical Skills Course*. Rosemont, Illinois, September 28-30, 2001.
128. **Nuber, GW:** "Failed Arthroscopic Stabilization Comprehensive Surgery for the Athletes Shoulder." *American Orthopedic Society for Sports Medicine Surgical Skills Course*. Rosemont Illinois, September 28-30, 2001.
129. **Nuber, GW,** Steven D. Levin, Jason L. Koh, Mohsen Makhous, Amanda F. Lin, Li-Qan Zhang: "Biomechanical Analysis of Partial Rotator Cuff Tear and its Surgical Repair." *American Shoulder and Elbow Surgeons 18<sup>th</sup> Annual Meeting*. Napa, California, October 24-27, 2001.
130. **Nuber, GW:** "Indications and Options in Arthroscopic Shoulder Stabilization, Shoulder Review and Update." *American Academy of Orthopaedic Surgery*. Rosemont, Illinois, November 10, 2001.
131. **Nuber, GW:** "Acromioclavicular Injuries Shoulder Review and Update." *American Academy of Orthopaedic Surgery*. Rosemont, Illinois, November 10, 2001.
132. **Nuber, GW:** "Responsibilities of a Team Physician." *Chicago Medical Society*. Drake Hotel, Chicago, Illinois. March 7, 2002.
133. Nam EK, Makhous M, Koh J, Caravelli M, Chou P, Bowen MK, **Nuber, GW,** Zhang L: "Osteochondral Transfer in a Rabbit Model: A Biomechanical and Histological Evaluation," *Mid-America Orthopaedic Meeting*; Tucson, Arizona, April 24-28, 2002. (ALSO received Mid-America Orthopaedic Association Multi-Purpose Grant, 2001)
134. Nam E, Makhous M, Koh J, Chou P, Caravelli M, Bowen MK, **Nuber, GW,** Zhang L: "Biomechanical and Histological Evaluation of Osteochondral Transplantation in a Rabbit Model," *Orthopaedic Research and Education Foundation Meeting*, Chicago, IL, May 17, 2002.
135. **Nuber, GW:** "Labrum Injuries – Who Cares?" *Spring Training*, University of Minnesota, Minneapolis, Minnesota, June 6-7, 2002.
136. Nam E, Makhous M, Koh J, **Nuber, GW,** Bowen MK, Zhang L: "Biomechanical and Histological Evaluation of Osteochondral Transplantation in a Rabbit Model," *International Cartilage Repair Society Meeting*, Toronto, Ontario, Canada, June 15-18, 2002.

137. Zhang Li Quan, Makhaus Mohsen, Fang Lin, Koh J, **Nuber, GW**, Levin S:  
 “Biomechanical  
 Analysis of Partial Thickness Tear of the Supraspinatus Tendon under Static and Dynamic,”  
*4<sup>TH</sup> Conference of the International Shoulder Group*, Cleveland, Ohio June 17-18, 2002.

### PRESENTATIONS (Cont'd)

138. **Nuber, GW**: “Indications and Options in Arthroscopic Shoulder Stabilization,” \*Shoulder Review and Update\* *American Academy of Orthopaedic Surgeons* Rosemont IL, July 20, 2002. Gordon W. Nuber, MD/Chairman.
139. **Nuber, GW**: “Acromioclavicular Injuries” Shoulder Review and Update. *American Academy of Orthopaedic Surgeons* Rosemont, IL July 20, 2002. Gordon W. Nuber, MD/Chairman.
140. **Nuber, GW**: “Cumulative Trauma: Managing the Degenerative Knee” *Sports Medicine 2003: An NFL Perspective*, San Francisco, CA, May 9, 2003.
141. **Nuber, GW**: Bradley J, Cooper D, Bergfeld J: “Complex Knee Problems” Breakout Roundtable Moderator J. Browne. *Sports Medicine 2003: An NFL Perspective*, San Francisco, CA, May 9, 2003.
142. **Nuber, GW**: “Rotator Cuff Tears” *Seventh Annual Big Sky Sports Medicine Conference* Butte, Montana, June 14-15, 2003.
143. **Nuber, GW**: Abrams J. Moderator, Live Faculty Surgical Demonstration *Arthroscopic Stabilization Anterior, Posterior Suture Capsulorrhaphy Arthroscopic and open techniques in shoulder surgery*, AAOS Rosemont, IL, Feb. 7, 2004
144. **Nuber, GW**: *Acromioclavicular Joint Reconstruction: Weaver Dun Technique*: Feb. 8, 2004  
*Arthroscopic and Open Techniques in Shoulder Surgery*, AAOS, Rosemont, IL
145. **Nuber, GW**: *Moderator Arthroscopic Instability Lectures, The Shoulder: Advanced management option from open and Arthroscopic Surgeon*, Rosemont IL, Gordon W. Nuber and Brian J. Cole Course Directors
146. **Nuber, GW.**, Bowen, M.K., Sakhani RC, Kendall MC, *Interscalene Block (ISB) for Shoulder/Upper Arm Surgery: A Prospective Evaluation of 693 consecutive cases for side effects/complications*, 21<sup>st</sup> annual meeting American Shoulder and Elbow Surgeons. The Plaza Hotel, New York, Sept 29- October 2<sup>nd</sup>, 2004.
147. **Nuber, GW.**, Bowen, M.K. *Orthopaedic Controversies*, 1<sup>st</sup> Annual Medical and Legal Controversies in Sports Medicine Conference: Dec 1-2, 2005. Sears Tower, Chicago IL.

148. **Nuber, GW.**, Matlock, Robert., Guelich, David., Lautenschlager, Eugene P., Laskin, William B., *The Effects of Intra-Articular Hyaluronic Acid Injection on Percentage of Chondrocyte Apoptosis After a Blunt Cartilage Injury in the New Zealand White Rabbit.* NFL Physicians Society Annual Scientific Meeting: February 24, 2006. Indianapolis, Indiana.
149. Matlock, R. Guelich, D. Lautenschlager, E. **Nuber, GW.** *Effect of Hyaluronic Acid on Chondrocyte Apoptosis after a Blunt Articular Cartilage Injury.* American Academy of Orthopaedic Surgeons, 73<sup>rd</sup> Annual Meeting. March 22, 2006, Chicago Illinois.
150. Matlock, RF. Guelich, DR. Lautenschlager, EP. **Nuber, GW.** *The Effects of Intra-Articular Hyaluronic Acid on Percentage of Chondrocyte Apoptosis after a Blunt Cartilage Injury in the New Zealand White Rabbit.* Mid-American Orthopaedic Association, 24<sup>th</sup> Annual Meeting. April 22, 2006. San Antonio, Texas.
151. **Nuber, GW.** *Arthroscopic Stabilization for Posterior Instability: Indications and Techniques.* American Academy of Orthopaedics Surgeons: The Shoulder: An Arthroscopic Odyssey #3011. Orthopaedic Learning Center, July 28-29, Rosemont, Illinois
152. Kohli, Navjot. Lim, Dohyung. Maskous, Mohssen. Koh, Jason. Schaefer, David. **Nuber, G.W.** *Dynamic Stability of the Elbow, a Biomechanical Study of Muscle Contribution to Valgus Stability.* 23<sup>rd</sup> Annual Closed Meeting American Shoulder and Elbow Surgeons. Sept. 13-16, 2006. Chicago, Illinois.
153. **Nuber, GW,** *Shoulder Injuries, Medical and Legal Controversies in Athletes: Collegiate, Professional, Olympic and High School.* Second Annual Institute for sports Medicine and Sports Law Conference. December 7-8, 2006. Chicago, Illinois.
154. **Nuber, GW,** *Shoulder and Humerus Review.* American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting Orthopaedic Review Course. February 15, 2007. San Diego, California.
155. Koh, J.L., Flores, Flores, S., Park, H.S., Yang, S., Levin, S.D., **Nuber, GW,** Zhang, L., *Biomechanical Analysis of Partial Thickness Rotator Cuff Tears.* American Academy of Orthopaedic Surgeons. February 15, 2007. San Diego, California.
156. Kohli, N, Koh, J.L., Lim, D., Makhsous, M., Schafer, D., **Nuber, GW.,** *Dynamic Stability of the Elbow: A Biomechanical Study of Muscle Contribution to Valgus Stability.* American Shoulder and Elbow Surgeons Open Meeting. February 17, 2007. San Diego, California.
157. **Nuber, GW:** Responsibilities of a Team Physician – Life in the NFL. *Racine Medical*

*Society*, March 28, 2007, Racine, Wisconsin.

158. **Nuber, GW:** The Team Physician in this New Millennium, Is it Really Worth It? From the Playground to the Stadium: A Comprehensive Update on the Management of Sports Injuries of the Foot & Ankle. *American Orthopaedic Foot and Ankle Society*, May 3 -5, 2007, Rosemont, Illinois.
159. **Nuber, G.W:** *Technique: Arthroscopic Capsular Plication and Rotator Interval Closure.* American Academy of Orthopaedic Surgeons / American Shoulder and Elbow Surgeons Arthroscopic Shoulder: Advanced Techniques #3113. Orthopaedic Learning Center, July 27-28, 2007, Rosemont, Illinois.
160. **Nuber, G.W.,** Schafer M., Bennett, A.B., Moderator Adams, S., Orthopaedic Injuries Panel Discussion, "*Medical and Legal controversies in Collegiate, Professional, Olympic And High School Athletics*". Third Annual Institute for Sports Medicine and Sports Law Conference, December 6 - 7, Chicago, Illinois.
161. **Nuber, G.W.:** *Clinical Evaluation for Instability and Labral Lesions*, AAOS/ASES Open and Arthroscopic Techniques in Shoulder Surgery #3201, Orthopaedic Learning Center , January 18 - 19, 2008, Rosemont, Illinois.
162. **Nuber, G.W.,** *Open Anterior Stabilization-Technical Considerations and Results.* Arthroscopic Association of North America/ The American Orthopaedic Society for Sports Medicine Combined Specialty day, March 8th 2008
163. **Nuber, G.W. :** *Articular Cartilage: Abrasion, Chondroplasty and Microfractures.* American Academy of Orthopaedic Surgeons-Knee injuries in Athletes: Getting patients back in the game. Cutting edge technologies for restoring function and avoiding complications #3203, April 3-5, 2008 Rosemont, IL.
164. Brander, V.A., Bowen, M.K., Chambers, M., Bart, R.A., Naber, Lee., Gomberawalla, A., **Nuber, G.W.** Two Hylan GF.20 injections reduce osteoarthritic shoulder pain and improve function for six months. Mid-America Orthopaedic Association 26th annual meeting April 16-20, 08. Orlando, Florida
165. Koo, S., Koh, J., **Nuber, G.W.** A Biomechanical comparison of three double-row rotator cuff repair techniques. Annual meeting of the American Orthopaedic Association and the Canadian Orthopaedic Association: Quebec City, Quebec Canada, June 4-7, 08
166. **Nuber, G.W.,** *Technique: Arthroscopic Capsular Plication and Rotator Interval Closure* AAOS/ASGS Arthroscopic Management of Rotator Cuff Disease and Instability #3206, July 18-19, 2008 Rosemont, Illinois.

167. Saltzman, M.D., Koh, J.L., **Nuber, G.W.**, Gryzlo, S.M., Marecek, G.S. Efficacy of Surgical Preparation Solutions in Shoulder Surgery. American Shoulder and Elbow Surgeons 2008 Annual Meeting, Santa Barbara, California, September 3-6, 2008.
168. **Nuber, G.W.**, Arthroscopic Stabilization for Posterior Instability and Technique. Department of Orthopaedic Surgery; Northwestern University Medical School Grand Rounds. Chicago, Illinois, September 12, 2008.
169. **Nuber, G.W.** High School or Elite Athlete: Treatment Options AAOS/ASES Management of the Unstable Shoulder: Arthroscopic and Open Repair # 3208, October 3-4, 2008, Rosemont, Illinois, October 3-4, 2008.
170. Shah, N.A., Capito, R.M., **Nuber, G.W.**, Stupp, S.I., Self- Assembly Peptide Amphiphiles as an Adjunct to Micro-fracture for Articular Cartilage Regeneration: A rabbit model. Orthopedic Research Society 55<sup>th</sup> Annual Meeting, Las Vegas, Nevada, February 22-25, 2009.
171. Saltzman, M.D., **Nuber, G.W.**, Gryzlo, S.M., Marecek, G.S., Koh, J.L., Efficacy of Surgical Preparation Solutions in Shoulder Surgery, American Academy of Orthopaedic Surgeons, 2009 Annual Meeting, Las Vegas, Nevada, February 25-28, 2009.
172. Saltzman, M.D., **Nuber, G.W.**, Gryzlo, S.M., Marecek, G.S., Koh, J.L., Efficacy of Surgical Preparation Solutions in Shoulder Surgery. Nominated for Charles Neer Award of Clinical Research Excellence, American Shoulder and Elbow Surgeons. Venetian Hotel, Las Vegas, Nevada, February 28, 2009.
173. Koo, S.S., Moen, T., **Nuber, G.W.**, Koh, J.L., A Biomechanical Comparison of Three Double-Row Rotator Cuff Repair Techniques, Mid-America Orthopaedic Association, 27<sup>th</sup> Annual Meeting. Amelia Island, Florida, April 22-26, 2009.
174. Koo, S.S., Moen, T., **Nuber, G.W.**, Koh, J.L., A Biomechanical Comparison of the Double Row Rotator Cuff Repair Techniques. 7<sup>th</sup> Biennial. ISAKOS (International Society of Arthroscopy Knee Surgery and Orthopaedic Sports Medicine) Conference, Osaka, Japan, April 5-9, 2009
175. **Nuber, G.W.**, Shoulder Physical Exam, Sports Medicine and The NFL: A Sideline Perspective , American Orthopaedic Society for Sports Medicine, The Palace Hotel, San Francisco, California, May 7-9, 2009.
176. **Nuber, G.W.**, ACL Current Concepts: Graft Type, Rehabilitation Protocols, Sports Medicine and The NFL: A Sideline Perspective, American Orthopaedic Society for Sports Medicine, The Palace Hotel, San Francisco, California, May 7-9, 2009.
177. Shah, N.A., **Nuber, G.W.**, 8<sup>th</sup> World Congress of the International Cartilage Repair Society, Miami, Florida, May 25, 2009.

178. Shah, N.A., Capito, R.M., **Nuber, G.W.**, Strupp, S.I.: Accelerated and Enhanced Articular Cartilage Regeneration with Nano-Engineered Scaffolds in Micro Fracture, American Orthopaedic Society for Sports Medicine 2009 Annual Meeting, Keystone , Colorado, July 9-12, 2009.
179. **Nuber, G.W.**, Technique: Arthroscopic Capsular Placation and Rotator Interval Closure, AAOS/AJES Arthroscopic Management of Rotator Cuff Disease and Instability # 3319 OLC, Rosemont, Il. July 24-25, 2009

### SCIENTIFIC EXHIBITS

1. **Nuber, GW**, Kelikian A, Tachdjian MO, Jasty M: "Treatment of Sprengel's Deformity Using a Modified Green Procedure." *American Academy of Orthopaedic Surgeons*, Anaheim CA, Mar 1983.
2. Elenz, DR, **Nuber, GW**, Bowen, MK, Healy, KE, Tsai, DC, Whang, K, Thomas, CH, Nam EK: "Treatment of Experimental Bone Defects with Porous Bioabsorbable Copolymers." *American Academy of Orthopaedic Surgeons 42nd Annual Meeting*, Atlanta GA, Feb 1996.

### POSTER EXHIBITS

1. Parker AW, **Nuber, GW**, Carroll C, Gilbert J: "The Effects of the Method of Loading and Radial Head Excision on Strain in the Medial Collateral Ligament of the Elbow." *American Academy of Orthopaedic Surgeons Annual Meeting*, Washington DC, Feb 1992.
2. Parker AW, **Nuber, GW**, Carroll C, Gilbert J: "The Effects of the Method of Loading and Radial Head Excision on Strain in the Medial Collateral Ligament of the Elbow." *Ninth Combined Meeting of the Orthopaedic Association of the English Speaking World*, Ontario Canada, June 1992.
3. Gryzlo, SM, Lautenschlager, E, **Nuber, GW**, Raab, DJ: "The Contribution of the Capsule to Posterior Glenohumeral Joint Stability: A Strain Analysis in Cadaver Shoulders." *American Academy of Orthopaedic Surgeons 60th Annual Meeting*, San Francisco CA, Feb 20 1993.
4. Bresch, J., **Nuber, GW**: "Mechano-receptors of the Middle and Inferior Glenohumeral Ligaments." *American Academy of Orthopaedic Surgeons 62nd Annual Meeting*, Orlando FL, Feb 20 1995.
5. Bresch, J., **Nuber, GW**: "Mechano-receptors of the Middle and Inferior Glenohumeral Ligaments." *American Orthopaedic Association, 108th Annual*

*Meeting*, The Greenbrier, White Sulphur Springs WV, Jun 10-13 1995.

6. **Nuber, GW**, Zhang LQ, Bowen M, Whang G, Huang H, Butler J: "Muscle Strength of ACL Chronically Injured, Acutely Injured, Reconstructed and Uninjured Knees." *44th Annual Meeting, Orthopaedic Research Society*, New Orleans LA, Mar 16-19 1998.
7. **Nuber, GW**, Zhang LQ, Huang H, Bowen M, Rymer WZ: "Patellar Tendon Reflex Following ACL Injury and Reconstruction." *44th Annual Meeting, Orthopaedic Research Society*, New Orleans LA, Mar 16-19 1998.
8. Wright RW, Fischer DA, Shively RA, Heidt RS, **Nuber, GW**: "Refracture of Fifth Metatarsal (Jones) Fractures Following Intramedullary Screw Fixation." *American Academy of Orthopaedic Surgeons 65th Annual Meeting*, New Orleans LA, Mar 16-19, 1998.
9. Gourineni, P., **Nuber, GW.**, Knuth, A., "Evaluation of Medial Malleolar Screw Position in Relation to the Ankle Joint Space on the Antero-Posterior and the Mortise Views." *Mid-America Orthopaedic Association*, Acapulco, Mexico, Apr 22-26, 1998.
10. Zhang, LQ, **Nuber, GW**, DiRaimondo, CA, Bowen, MK, Chundari : "Load Sharing Between the Supraspinatus and Deltoid Muscles in Glenohumeral Abduction." *Forty-Fifth Annual Meeting of the Orthopaedic Research Society*, Anaheim CA, Feb 1-4, 1999.
11. Zhang LQ, **Nuber, GW**, Wang G, Kahn LE, Portland GH, Bowen MK: "Does It Take a Longer Delay for the Vastus Medialis to Extend the Knee than the Other Quadriceps Components?" *Forty-Fifth Annual Meeting of the Orthopaedic Research Society*, Anaheim CA, Feb 1-4, 1999.
12. Gourineni, P, Knuth A, **Nuber, GW**: "Radiographic Evaluation of Medial Malleolar Implant Placement." *American Academy of Orthopaedic Surgery*, Anaheim, CA. February 4-8, 1999.
13. Cumming CA, Anderson K, Bowen MK, **Nuber, GW**: "Anatomy of the Spinoglenoid Ligament." *Seventeenth Annual Meeting, Mid-America Orthopaedic Association*, Southampton Princess, Bermuda, April 14-18, 1999.
14. Minorik, J, Difelice, A, Xu, D, **Nuber, GW**, Bowen MK, Zhang LQ: Comparison of biceps Tenodesis and anatomic repairs for posterolateral knee instability. *In Proceeding of 47<sup>th</sup> Ann. Meet. Orthop. Res. Soc.*, San Francisco, CA, February 2001.
15. Zhang LQ, Wang G, Brizzell J, **Nuber, GW**: In vivo load sharing among the quadriceps

- Components. *In Proceeding of 47<sup>th</sup> Annual Meeting. Orthopaedic. Res. Soc.*, San Francisco, CA  
February 2001.
16. Zhang LQ, **Nuber, GW**: “Muscle Strength in Tibial Rotation, Abduction and Extension after ACL Injury and Reconstruction: Compensatory *Mechanism*.” *American Academy of Orthopaedic Surgeons, 69<sup>th</sup> Annual Meeting*, Dallas, Texas, February 13-17, 2002.
  17. Nam EL, Makhsous M, Koh JL, Caparelli, M, Bowen, MK, **Nuber, GW**, Zhang, LQ: “Biomechanical and Histological Evolution of Osteochondral Transplantation in a Rabbit Model, *American Orthopaedic Society for Sports Medicine*, San Diego CA, July 20-23, 2003.
  18. Brander, V. Bowen, M.K. **Nuber, GW**. Galazka, B. Intra Articular Injections of Hyalan G-F 20 For the Treatment of Shoulder Osteoarthritis. Mid-American Orthopaedic Association. 24<sup>th</sup> Annual Meeting. April 19-25, 2006. San Antonio, TX.
  19. Makhsous, M., Lim, D., Perlmutter, S., Kohli, N., **Nuber, GW.**, Paramadtlok, E., Lin, F. Evaluation of the contribution of Individual Muscles in Flexor, Pronator Mass to Valgus Stability of the Elbow. *International Conference on Ubiquitous Healthcare*, August 28-29, 2006, COEX Convention Center, Seoul Korea. *World Congress on Medical Physics and Biomedical Engineering 2006*, August 27- September 1, 2006.
  20. **Nuber, GW.**, Paramadtlok, E., Kohli, N., Makshous, M., Perlmutter, S., Lim, D., Lin, F., Evaluation of the Flexor-Pronator Mass Contribution to Valgus Stability of the Elbow with Intact and Fully Torn Medial Collateral Ligament. *International Conference on Ubiquitous Healthcare*, August 28-29, 2006. COEX Convention Center, Seoul Korea. *World Congress Medical Physics and Biomedical Engineering 2006*. August 27 – September 1, 2006.
  21. Lim, D., Perlmutter, S., Lin, F., Kohli, N., **Nuber, GW.**, Bankard, J., Makhsous, M., Contribution of the Flexor Pronator and Extensor Supinator Masses for Valgus Stability of the Elbow at Throwing Postures. *Orthopaedic Research Society, 53<sup>rd</sup> Annual Meeting*. San Diego, California, February 11-14, 2007.
  22. Navjot, K., Koh, J.L., Kim, D., Makhsous, M., Schafer, D., **Nuber, GW.**, “Dynamic Stability of the Elbow: A Biomechanical Study of Muscle Contribution to Valgus Stability.” *American Academy of Orthopaedic Surgeons, 74<sup>th</sup> Annual Meeting*, February 14-18, 2007. San Diego, CA.
  23. Matlock, R., Geulich, D., Lautenschlager, E., **Nuber, GW.**, “The Effects of Intra-Articular Hyaluronic Acid Injection on Percentage of Chondrocyte Apoptosis after a Blunt Cartilage

Injury in the New Zealand White Rabbit.” *American Academy of Orthopaedic Surgeons, 74<sup>th</sup> Annual Meeting*, February 14-18, 2007.

24. Koo, S., Koh, J., **Nuber, G.W.**, Poster, A biomechanical comparison of three double-row rotator cuff repair techniques, Arthroscopy Association of North America, Washington, D.C., April 24-27, 08.
25. Brander, V., Gomberawalla, A., Chambers, M, Bowen, M., **Nuber, G.W.**, Prospective, Single-arm Pilot Study Evaluating the Safety and Efficacy of Two Hylan G-F 20 Injections in Patients with Advanced Painful Glenohumeral OA With or Without Rotator Cuff Tear, 69<sup>th</sup> Annual AAPM&R Assembly and Technical Exhibition, San Diego, California, November 20-23, 2008.
26. Shah, N.A., Capito, R.M., **Nuber, G.W.**, Stupp, S.I., Poster, Self-Assembling Peptide Amphiphiles as an Adjunct to Microfracture for Articular Cartilage Regeneration. International Meeting on Early Intervention for Knee Arthritis. February 4-6, 2009, MECC, Maastricht, The Netherlands.

## POSTGRADUATE COURSES

1. *Course Coordinator*: “Sports Medicine for the Primary Care Physician.” *The Cook County Graduate School of Medicine*, Chicago IL, Nov 1986, 1987, 1988, 1989, 1991, 1992, 1994.
2. *Faculty*: “Knee Joint Control and Biomechanics. Spinal, Lower, and Upper Limb Orthotics for Physicians, Surgeons, and Therapists.” *Northwestern University Prosthetic and Orthotic Center*, Chicago IL, Apr & Nov 1985, 1986, 1987, 1988, 1989, 1990, 1991.
3. *Course Chairperson*: “Rehabilitation Sports Medicine II: The Upper Extremity in Sports,” Chicago IL, Dec 1989.
4. *Course Chairperson*: “Rehabilitation Sports Medicine III: The Lower Extremity in Sports Medicine,” Chicago IL, Dec 1990.
5. *Course Chairperson*: “Rehabilitation Sports Medicine IV: Head and Neck Injuries in Sports,” Chicago IL, Dec 1991.
6. *Institute Medical Director*: 1992 Sports Medicine Institute, North Central College

*Center for Continuing Education, Chicago IL, Oct 29-30 1992.*

7. *Course Chairman: "Rehabilitation Sports Medicine V: The Young Athlete," Chicago IL, Dec 11-13 1992.*
8. *Course Coordinator: "Sports Medicine." The National Center for Advanced Medical Education, Chicago IL, Nov 17-19 1993.*
9. *Course Instructor: "Strategic Approaches to Shoulder Instability, Fractures, and Reconstruction." American Academy of Orthopaedic Surgeons, Rosemont IL, Apr 19-21 1996.*
10. *Course Instructor: "Arthroscopic Stabilization of the Shoulder. Strategic Management of the Shoulder: Rotator Cuff, Instability, and Decompression." American Academy of Orthopaedic Surgeons, Rosemont IL, Nov 8-10 1996.*
11. *Course Instructor: "Open and Arthroscopic Shoulder Surgery: Current Concepts and Techniques." American Academy of Orthopaedic Surgeons, Rosemont IL, Jul 11-13 1997.*
12. *Course Instructor: "Reconstructive Surgery of the Elbow: Techniques, Trauma Management and Fixation." American Academy of Orthopaedic Surgeons, Rosemont IL, Oct 17-19 1997.*
13. *Course Instructor: "Open and Arthroscopic Surgery: Current Concepts and Techniques #420." American Academy of Orthopaedic Surgeons, Rosemont IL, Dec 5-7 1997.*
14. *Course Instructor: "One-day Shoulder 'Course within a Course' #422." American Academy of Orthopaedic Surgeons, Rosemont IL, Dec 6 1997.*
15. *Course Instructor: "Complex Instability of the Sports Knee: An In-Depth Look at Treatment Alternatives." American Academy of Orthopaedic Surgeons, Rosemont IL, Aug 7-9 1998.*
16. *Course Instructor. "Current Techniques in Open and Arthroscopic Shoulder Surgery." American Academy of Orthopaedic Surgeons, Rosemont, IL, Nov 13-15 1998.*
17. *Course Instructor. "Management of Acromioclavicle Injuries Course Within a Course." American Academy of Orthopaedic Surgeons, Rosemont, IL, Nov 14, 1998.*
18. *Course Instructor. "Rehabilitation Sports Medicine XI Case Studies in Sports Medicine." Chicago, IL, Dec 11-12, 1998.*

19. *Lab Instructor.* "Open and Arthroscopic Shoulder Surgeries Approach for the New Millennium." *American Academy of Orthopaedic Surgeons*, J.P. Warner, Michael Wirth; Course Chairmen, Rosemont, IL, July 9-11 1999.
20. *Lab Instructor.* "Open and Arthroscopic Shoulder Surgery: Approach for the New Millennium." *American Academy of Orthopaedic Surgeon*, Rosemont, IL December 10-12, 1999.
21. *Lab Instructor.* "Techniques in Shoulder Surgery." 20<sup>th</sup> Annual Summer Institute, *American Academy of Orthopaedic Surgeon*, Toronto, Canada Sept. 8-10, 2000.
22. *Lab Leader.* " Arthroscopic knot tying." *American Academy of Orthopaedic Surgeon AAOS/EEEXOT.* Shoulder and knee arthroscopy course. Orthopaedic Learning Center, Rosemont, IL, Oct. 20, 2000.
23. *Lab Instructor.* "Reconstructive Surgery of the Elbow: Techniques, Trauma, Management and Fixation." *American Academy of Orthopaedic Surgeons*, Orthopaedic Learning Center, Rosemont, IL, November 3-5, 2000. Bernard F. Morrey and Shawn W. O'Driscall/Chairman.
24. *Lab Instructor.* "The Shoulder in 2001; An Open and Arthroscopic Surgical Odyssey." *American Academy of Orthopaedic Surgeons*, Orthopaedic Learning Center, Rosemont IL, July 13-15, 2001. Michael A. Wirth & Peter McConn, *course chairmen*.
25. *Course and Lab Instructor.* "Techniques in Shoulder Surgery" Summer Institute. *American Academy of Orthopaedic Surgeons.* September 6-9, 2001.
26. *Course and Lab Instructor.* "Comprehensive Surgery for the Athletes Shoulder." *American Orthopaedic Society for Sports Medicine.* Rosemont, IL, September 28-30, 2001.
27. *Course Instructor.* "Shoulder Review and Update." *American Academy of Orthopaedic Surgeons.* Rosemont, IL, November 10, 2001.
28. *Course Chairman.* "Shoulder Review and Update." *American Academy of Orthopaedic Surgeons.* Rosemont, IL, July 20, 2002.
29. *Course Chairman.* "Advanced Arthroscopic and Open Shoulder Surgery." *American Academy of Orthopaedic Surgeons.* Rosemont, IL, July 20, 2002.
30. *Course Chairman.* "Elbow Arthroscopy, Fractures, Instability and Stiffness." *American Academy of Orthopaedic Surgeons.* Rosemont, IL, December 6-7, 2002.
31. *Lab Instructor.* "La Spalla 1° Corso Di Artoscopia E Chirurgia Su Cadavere." *Orthopaedic Learning Center.* Rosemont, IL, April 6-9, 2003.

32. *Lab Instructor. "Anatomy of the Shoulder Cadaver Lab." Seventh Annual Big Sky Sports Medicine Conference. Butte, Montana, June 14-15, 2003.*
33. *Lab Instructor. "Arthroscopic and Open Techniques in Shoulder Surgery", Feb. 6-8, 2004 American Academy of Orthopaedic Surgery, Rosemont, IL Anthony Minieka , Andrew Rokito (course chairman)*
34. *Course Director – The Shoulder: Advanced Management Options from Open and Arthroscopic, American Academy of Orthopaedic Surgeon, July 16 – 18, 2004 Rosemont, IL.*
35. *Course Instructor- AAOS/ASES Open and Arthroscopic Techniques in Shoulder Surgery. Jan 20-22, 2006. William Levine and John E. Kuhn, Course Directors. Rosemont, IL. Moderator: Humerus Fractures.*
36. *Course Instructor- The Shoulder: An Arthroscopic Odyssey #3011. American Academy of Orthopaedic Surgeons. Orthopaedic Learning Center. Rosemont, IL. July 28-29, 2006. Lab Leader- Arthroscopic Rotator Cuff Repair.*
37. *Course Instructor – AAOS/ASES Arthroscopic Shoulder: Advanced Techniques #3113. American Academy of Orthopaedic Surgeons. Orthopaedic Learning Center. Rosemont, IL. July 27-28, 2007. Lab Leader: Arthroscopic Bankart and Capsular Plication Lab Leader: Superior labral Repair, Biceps Tendonesis.*
38. *Course Instructor- AAOS/ASES Open and Arthroscopic Techniques in Shoulder Surgery #3201, Orthopaedic Learning Center, Rosemont, Illinois. January 18 -19, 2008.*
39. *Course Instructor- Knee Injury in Athletes: Getting patients Back in the game : Cutting Edge Techniques for Restoring Function and Avoiding Complications #3203 AAOS Orthopaedic Learning Center, April 3-5, 2008 Rosemont, IL.*
40. *Course Instructor - AAOS/ASES Arthroscopic Management of Rotator Cuff Disease and Instability #3206, Orthopaedic Learning Center, Rosemont, Illinois, July 18-19, 08. Lab leader: Arthroscopic Superior Labral Repair, Biceps Tendonesis.*
41. *Course Instructor and Lab Leader- AAOS/ASES Management of the Unstable Shoulder: Arthroscopic and Open Repair #308, Rosemont, Illinois, October 3-4, 2008.*
41. *Course Instructor- Sports Medicine and The NFL: A Sideline Perspective., American Orthopaedic Society for Sports Medicine., The Palace Hotel, San Francisco, California May 7-9, 2009.*
42. *Course Instructor- AAOS/ASES Arthroscopic Management of Rotator Cuff Disease and Instability # 3319, Rosemont, Il. July 24-25, 2009*

## GRANTS

1. Dr. L. Q. Zheng, Co-PI; **Dr. Gordon Nuber**, Co-PI: “Neuromechanics of Knee Extensor Mechanism/Malalignment,” NIH R01 Grant (P.I.), \$588,664, 12/1/1998-11/30/2003.
2. Co-investigator: “Neuromuscular Compensation and Joint Dynamics Studies of Normal, ACL Injured, and Reconstructed Human Knee Joints,” *The Whitaker Foundation Grant*, \$180,000, 1993-1996.
3. Co-investigator: “Selective and Differential Strengthening: A New Rehabilitation Treatment Post ACL Reconstruction,” *Northwestern Memorial Foundation Grant*, \$20,000, 1994-1996.