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PERSONAL

Born August 22, 1951
Married, five children
U.S. citizen

EDUCATION

M.S. 1978, **Northwestern University**, Evanston, IL.
Major: **Theoretical and Applied Mechanics**
Thesis Topic: A Mathematical Model for the Analysis of Ligament
Mechanics in Knees With/Without a Total Joint Prosthesis
(Advisor: Jack L. Lewis)
Honors: Walter P. Murphy Fellowship (1973-75)

B.S. 1973, **Clarkson College of Technology**, Potsdam, NY.
Major: **Mechanical Engineering**
Honors: Pi Tau Sigma, Tau Beta Pi, Phi Kappa Phi

EXPERIENCE

1998 to present **Instructor, University of Minnesota**, Department of Orthopaedic
Surgery, Minneapolis, MN

1995 to present **Assistant Director and Senior Scientist, Midwest Orthopaedic
Research Foundation**, Orthopaedic Biomechanics Laboratory,
Minneapolis, MN

1993 to present **Consultant, The Final Word - Medical/Technical Writing and Editing**,
726 Decorah Lane, Mendota Heights, MN

1986 to 1995 **Research Fellow, University of Minnesota**, Department of Orthopaedic
Surgery, Biomechanics Research Laboratory, Minneapolis, MN

1985 to 1986 **Co-Director of Prosthetics and Orthotics Research, Hines
Veterans Administration Hospital**, Prosthetics and Orthotics Research
Laboratory, Rehabilitation Research and Development Center, Hines, IL

1975 to 1985 **Research Engineer, Northwestern University**, Rehabilitation Engineering Program, Department of Orthopaedic Surgery, Biomechanics Unit, Chicago, IL

SOCIETIES American Society of Mechanical Engineers - member since 1974
Orthopaedic Research Society - member since 1987

RESEARCH INTERESTS

Total joint replacement (implant design, instrumentation development, soft tissue balancing, functional outcome, ligament-design geometry interactions), orthopaedic trauma, musculoskeletal sepsis, force analysis of human joints, technical/medical writing and editing, biomechanics of knee ligaments and their surgical reconstruction, shoulder biomechanics, patellofemoral biomechanics, ankle biomechanics, spine biomechanics, development of anthropometric scaling techniques, design of knee orthoses and orthotic joints, techniques in complementary and alternative medicine.

HONORS

First Prize - 1982 Residents' Trauma Paper Competition, Chicago Chapter of American College of Surgeons. Jasty M, **Lew WD**, Lewis JL, Schafer MF: Ligament Function in the Normal Knee.

1983 Excellence in Research Award - Clinical Science, American Orthopaedic Society for Sports Medicine. Jasty M, **Lew WD**, Lewis JL, Hill JA: Ligament Function in the Normal Knee.

1990 Excellence in Research Award - Young Investigator, American Orthopaedic Society for Sports Medicine. **Lew WD**, Lewis JL, Engebretsen L, Hunter RE: Graft Force-Setting Technique in Reconstruction of the Anterior Cruciate Ligament.

PATENTS

Lewis JL, Patruchak CM, **Lew WD**, Shybut GT: Knee Orthosis and Joint Construction Therefor. United States Letters Patent Number 4,361,142, allowed November 30, 1982.

Lewis JL, **Lew WD**, Kowalczyk CW, Hunter RE: Ligament Graft Apparatus and Method. United States Letters Patent Number 4,950,271, allowed August 21, 1990.

Gustilo RB, Hammett RS, **Lew WD**, Bechtold JE: Arthroplasty Trial Prosthesis, Alignment Devices and Associated Methods. United States Letters Patent Number 5,733,292, allowed March 31, 1998.

Gustilo RB, **Lew WD**: Device and Method for Distal Femur Cutting and Prosthesis Measuring. United States Letters Patent Number 5,925,049, allowed July 20, 1999.

Chow S, Gustilo RB, **Lew WD**: Rotating Track Cutting Guide System. United States Letters Patent Number 6,858,032, allowed February 22, 2005.

PUBLICATIONS

Book Chapters

Lewis JL, **Lew WD**, Shybut GT, Jasty M, Hill JA: Chapter 12 - Biomechanical Function of Knee ligaments. In: **American Academy of Orthopaedic Surgeons Symposium on Sports Medicine: The Knee**, edited by G Finerman, The CV Mosby Co, pp. 152-168, 1985.

Lewis JL, **Lew WD**: Chapter 40 - Bioengineering of Total Joint Replacement. In: **Handbook of Bioengineering**, edited by R Skalak and S Chien, McGraw-Hill Book Co, pp. 40.1-40.25, 1987.

Lewis JL, **Lew WD**: Chapter 18 - Measurement of Force in Cruciate Ligament Reconstructions. In: **Biology and Biomechanics of the Traumatized Synovial Joint: the Knee as a Model**, edited by G Finerman and FR Noyes, American Academy of Orthopaedic Surgeons, pp. 333-361, 1992.

Lewis JL, **Lew WD**, Markolf K: Chapter 8 - The Measurement of Anterior Cruciate Ligament Loads: Direct Methods. In: **The Anterior Cruciate Ligament: Current and Future Concepts**, edited by DW Jackson, Raven Press, pp. 95-100, 1993.

Lew WD, Lewis JL, Craig EV: Chapter 3 - Stabilization by Capsule, Ligaments and Labrum: Stability at the Extremes of Motion. In: **The Shoulder: A Balance of Mobility and Stability**, edited by FA Matsen, FH Fu, and RJ Hawkins, American Academy of Orthopaedic Surgeons, pp. 69-89, 1993.

Computer Manuals

Hamner RS, **Lew WD**: A Manual Describing LIG - Ligament Interactive Graphics. Northwestern University Rehabilitation Engineering Program Report, Chicago IL, 50 pages, 1982.

General Articles

Lew WD, Lew RL: Let's Invest Ourselves and Our Time, Not Our Tax Dollars. **SunCurrent Newspaper**, Editorial, Vol. 21, No. 47, November 10, 1993.

Lew WD: "In Vivo" Testing in the Musculoskeletal System. **TEST Engineering & Management**, The Mattingley Publishing Co., Inc., Oakland, pp. 6-9, August/September 1994.

Lew WD: Turbulent Versus Laminar Research. **American Society of Biomechanics Newsletter**, Guest Columnist, Vol. 11, No. 2, p. 6, December 1998.

Refereed Journal Articles

Lew WD, Lewis JL: An Anthropometric Scaling Method With Application to the Knee Joint. **Journal of Biomechanics**, Vol. 10, No. 3, pp. 171-181, 1977.

Lewis JL, **Lew WD**: A Note on the Description of Articulating Joint Motion. **Journal of Biomechanics**, Vol. 10, No. 10, pp. 675-678, 1977.

Lewis JL, **Lew WD**: A Method for Locating an Optimal "Fixed" Axis of Rotation for the Human Knee Joint. **Journal of Biomechanical Engineering**, Vol. 100, No. 4, pp. 187-193, 1978.

Lew WD, Lewis JL: A Technique for Calculating In Vivo Ligament Lengths With Application to the Human Knee Joint. **Journal of Biomechanics**, Vol. 11, No. 8/9, pp. 365-377, 1978.

Lewis JL, **Lew WD**, Zimmerman JR: A Nonhomogeneous Anthropometric Scaling Method Based on Finite-Element Principles. **Journal of Biomechanics**, Vol. 13, No. 10, pp. 815-824, 1980.

Lewis JL, **Lew WD**, Schmidt J: A Note on the Application and Evaluation of the Buckle Transducer for Knee Ligament Force Measurement. **Journal of Biomechanical Engineering**, Vol. 104, No. 2, pp. 125-128, 1982.

Lew WD, Lewis JL: The Effect of Knee Prosthesis Geometry on Cruciate Ligament Mechanics During Flexion. **Journal of Bone and Joint Surgery [Am]**, Vol. 64, No. 5, pp. 734-739, 1982.

Lew WD, Patrnochak CM, Lewis JL, Schmidt J: A Comparison of Pistoning Forces in Orthotic Knee Joints. **Orthotics and Prosthetics**, Vol. 36, No. 2, pp. 85-95, 1982.

Cheverud JM, Lewis JL, Bachrach W, **Lew WD**: The Measurement of Form and Variation in Form: An Application of Three-dimensional Quantitative Morphology by Finite-Element Methods. **American Journal of Physical Anthropology**, Vol. 62, pp. 151-165, 1983.

Lewis JL, **Lew WD**, Patrnochak CM, Shybut GT: A New Concept in Orthotics Joint Design - The Northwestern University Knee Orthosis System. **Orthotics and Prosthetics**, Vol. 37, No. 4, pp. 15-23, 1983.

Lewis JL, **Lew WD**, Stulberg SD, Patrnochak CM, Shybut GT: A New Concept in Orthotics - The Northwestern University Knee Orthosis System - Part II: Complete Orthosis. **Orthotics and Prosthetics**, Vol. 38, No. 1, pp. 13-28, 1984.

Lewis JL, **Lew WD**, Schmidt J: Description and Error Evaluation of an In Vitro Knee Joint Testing System. **Journal of Biomechanical Engineering**, Vol. 110, No. 3, pp. 238-248, 1988.

Lewis JL, **Lew WD**, Hill JA, Hanley P, Ohland K, Kirstukas S, Hunter RE: Knee Joint Motion and Ligament Forces Before and After ACL Reconstruction. **Journal of Biomechanical Engineering**, Vol. 111, No. 2, pp. 97-106, 1989.

Hanley P, **Lew WD**, Lewis JL, Hunter RE, Kirstukas S, Kowalczyk C: Load Sharing and Graft Forces in ACL Reconstructions With the LAD. **American Journal of Sports Medicine**, Vol. 17, No. 3, pp. 414-422, 1989.

Hunter RE, **Lew WD**, Lewis JL, Kowalczyk C, Settle W: Graft Force-Setting Technique in Reconstruction of the ACL. **American Journal of Sports Medicine**, Vol. 18, No. 1, pp. 12-19, 1990.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE: The Effect of an Iliotibial Tenodesis on Intraarticular Graft Forces and Knee Joint Motion. **American Journal of Sports Medicine**, Vol. 18, No. 2, pp. 169-176, 1990.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE: Knee Mechanics After Repair of the Anterior Cruciate Ligament - A Cadaver Study of Ligament Augmentation. **Acta Orthopaedica Scandinavica**, Vol. 60, No. 6, pp. 703-709, 1989.

Lew WD, Engebretsen L, Kowalczyk C, Lewis JL, Hunter RE: Method for Setting Total Graft Force and Load Sharing in Augmented ACL Grafts. **Journal of Orthopaedic Research**, Vol. 8, No. 5, pp. 702-711, 1990.

Lewis JL, **Lew WD**, Engebretsen L, Hunter RE, Kowalczyk C: Factors Effecting Graft Force in Surgical Reconstruction of the Anterior Cruciate Ligament. **Journal of Orthopaedic Research**, Vol. 8, No. 4, pp. 514-521, 1990.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE, Benum P: Anterolateral Rotatory Instability of the Knee: Cadaver Study of Extraarticular Patellar Tendon Transposition. **Acta Orthopaedica Scandinavica**, Vol. 61, No. 3, pp. 225-230, 1990.

Engebretsen L, **Lew WD**: Injuries to the Posterior Cruciate Ligament and Posterolateral Structures of the Knee - A Review Article. **Scandinavian Journal of Medicine and Science in Sports**, Vol. 2, pp. 50-61, 1992.

Chao TTH, **Lew WD**, Lewis JL, Lindquist C, Hong B, Arendt E: Biomechanical Effect of Distributed Femoral Attachment Site and Maximum Unloaded Length on an Augmented ACL Graft. **Journal of Orthopaedic Research**, Vol. 10, No. 6, pp. 868-877, 1992.

Stewart N, Engebretsen L, Lewis JL, Lindquist C, **Lew WD**: Maintenance of Set Force in Anterior Cruciate Ligament Grafts. **Journal of Orthopaedic Research**, Vol. 11, No. 1, pp. 149-153, 1993.

Gertel TH, **Lew WD**, Lewis JL, Stewart NJ, Hunter RE: Effect of Anterior Cruciate Graft Tensioning Direction, Magnitude and Flexion Angle on Knee Biomechanics. **American Journal of Sports Medicine**, Vol. 21, No. 4, pp. 572-579, 1993.

Lewis JL, Poff BC, Smith JJ, Lindquist CM, Engebretsen L, **Lew WD**: A Method for Establishing and Measuring In Vivo Forces in an Anterior Cruciate Ligament Composite Graft: Response of Differing Levels of Load Sharing in a Goat Model. **Journal of Orthopaedic Research**, Vol. 12, No. 6, pp. 780-788, 1994.

Smith JJ, Lewis JL, Mente PL, Lindquist CM, Poff BC, **Lew WD**: Intraoperative Force-Setting did not Improve the Mechanical Properties of an Augmented Bone-Tendon-Bone Anterior Cruciate Ligament Graft in a Goat Model. **Journal of Orthopaedic Research**, Vol. 14, No. 2, pp. 209-215, 1996.

Lundberg WR, Lewis JL, Smith JJ, Lindquist C, Meglitsch T, **Lew WD**, Poff BC: In Vivo Forces During Remodeling of a Two-Segment Anterior Cruciate Ligament Graft in a Goat Model. **Journal of Orthopaedic Research**, Vol. 15, No. 5, pp. 645-651, 1997.

Bahr R, Pena F, Shine J, **Lew WD**, Lindquist C, Tyrdal S, Engebretsen L: Mechanics of the Anterior Drawer and Talar Tilt Tests - A Cadaveric Study of Lateral Ligament Injuries of the Ankle. **Acta Orthopaedica Scandinavica**, Vol. 68, No. 5, pp. 435-441, 1997.

Bahr R, Pena F, Shine J, **Lew WD**, Tyrdal S, Engebretsen L: Biomechanics of Ankle Ligament Reconstruction - In Vitro Comparison of the Brostrom Repair, Watson-Jones Reconstruction and a New Anatomical Reconstruction Technique. **American Journal of Sports Medicine**, Vol. 25, No. 4, pp. 424-432, 1997.

Bahr R, Pena F, Shine J, **Lew WD**, Engebretsen L: Ligament Force and Joint Motion in the Intact Ankle - A Cadaveric Study. **Knee Surgery Sports Traumatology Arthroscopy**, Vol. 6, pp. 115-121, 1998.

Southwell DG, Bechtold JE, **Lew WD**, Schmidt AH: Improving the Detection of Acetabular Osteolysis Through Oblique Radiographs. **Journal of Bone and Joint Surgery [Br]**, Vol. 81, No. 2, pp. 289-295, 1999.

Matsueda M, Gengerke TR, Murphy M, **Lew WD**, Gustilo RB: Soft Tissue Release in Total Knee Arthroplasty - Cadaver Study Using Knees Without Deformities. **Clinical Orthopaedics and Related Research**, Vol. 366, pp. 264-273, 1999.

Chareancholvanich K, Bourgeault CA, Schmidt AH, Gustilo RB, **Lew WD**: In Vitro Stability of Cemented and Cementless Femoral Stems With Compaction. **Clinical Orthopaedics and Related Research**, Vol. 394, pp. 290-302, 2002.

Chen X, Kidder LS, **Lew WD**: Osteogenic Protein-1 Induced Bone Formation in an Infected Segmental Defect in the Rat Femur. **Journal of Orthopaedic Research**, Vol. 20, No. 1, pp. 142-150, 2002.

Polga DJ, Beaubien BP, Kallemeier PM, Schellhas KP, **Lew WD**, Buttermann GR, Wood KB. Measurement of *In Vivo* Intradiscal Pressure in Healthy Thoracic Intervertebral Discs. **Spine**, Vol. 29, No. 12, pp. 1320-1324, 2004.

Chen X, Kidder LS, Schmidt AH, **Lew WD**: Osteogenic Protein-1 Induces Bone Formation in the Presence of Bacterial Infection in a Rat Intramuscular Osteoinduction Model. **Journal of Orthopaedic Trauma**, Vol. 18, No. 7, pp. 436-442, 2004.

Beaubien BP, Mehbod AA, Kallemeier PM, **Lew WD**, Buttermann GR, Transfeldt EE, Wood KB: Posterior Augmentation of an Anterior Lumbar Interbody Fusion: Minimally Invasive Fixation Versus Pedicle Screws *In Vitro*. **Spine**, Vol. 29, No. 19, pp. E406-E412, 2004.

Chen X, Tsukayama DT, Kidder LS, Bourgeault CA, Schmidt AH, **Lew WD**: Characterization of a Chronic Infection in an Internally Stabilized Segmental Defect in the Rat Femur. **Journal of Orthopaedic Research**, Vol. 23, No. 4, pp. 816-823, 2005.

Beaubien BP, Derincek A, **Lew WD**, Wood KB: *In Vitro*, Biomechanical Comparison of an Anterior Lumbar Interbody Fusion with an Anteriorly Placed, Low-Profile Lumbar Plate and Posteriorly Placed Pedicle Screws or Translaminar Screws. **Spine**, Vol. 30, No. 16, pp. 1846-

1851, 2005.

Kallemeier PM, Buttermann GR, Beaubien BP, Chen X, Polga DJ, **Lew WD**, Wood KB: Validation, Reliability, and Complications of a Tethering Scoliosis Model in the Rabbit. **European Spine Journal**, Vol. 15, No. 4, pp. 449-456, 2006.

Kyle RF, Bourgeault CA, **Lew WD**, Bechtold JE: Precooling an Acetabular Liner Makes its Insertion into a Metal Shell Easier. **Journal of Arthroplasty**, Vol. 21, No. 2, pp. 249-254, 2006.

Chen X, Schmidt AH, Tsukayama DT, Bourgeault CA, **Lew WD**: Recombinant Human Osteogenic Protein-1 Induces Bone Formation in a Chronically Infected, Internally Stabilized Segmental Defect in the Rat Femur. **Journal of Bone and Joint Surgery [Am]**, Vol. 88, No. 7, pp. 1510-1523-295, 2006.

Refereed Abstracts, Short Papers

Lewis JL, **Lew WD**: A Method for Predicting In Vivo Ligament Lengths for the Knee. **Proceedings of the Fourth New England Bioengineering Conference**, edited by S Saha, pp. 73-76, 1976.

Lewis JL, **Lew WD**: Effect of Prosthesis Placement on Ligament Lengths of the Knee Joint. **1976 Advances in Bioengineering**, edited by RE Mates and CR Smith, American Society of Mechanical Engineers, pp. 3-4, 1976.

Lewis JL, **Lew WD**: A Theoretical Study of Ligament Length Patterns for a Geomedic Type Prosthesis. **Transactions of the 23rd Annual Meeting of the Orthopaedic Research Society**, Vol. 2, p. 53, 1977.

Lew WD, Lewis JL: Comparison of Ligament Length Patterns and Stability of Geomedic and Total Condylar Prostheses. **Transactions of the 24th Annual Meeting of the Orthopaedic Research Society**, Vol. 3, p. 154, 1978.

Lewis JL, Wixson R, Jasty M, **Lew WD**: Functioning of the Anterior Cruciate in a Surface Replacement Total Knee Prosthesis. **Transactions of the 26th Annual Meeting of the Orthopaedic Research Society**, Vol. 5, p. 306, 1980.

Jasty M, **Lew WD**, Lewis JL: In Vitro Ligament Forces in the Normal Knee Using Buckle Transducers. **Transactions of the 28th Annual Meeting of the Orthopaedic Research Society**, Vol. 7, p. 241, 1982.

Cheverud JM, Lewis JL, **Lew WD**, Bachrach W: The Measurement of Form Change: A Quantification of D'Arcy Thompson Transformations Based on Continuum Mechanics and Nonhomogeneous Scaling. **American Journal of Physical Anthropology**, Vol. 57, p. 176, 1982.

Lew WD, Lewis JL, Askew MJ, Steege J: Interaction of Knee Ligaments With the Geometry of Total Knee Replacements. **Bulletin of Prosthetics Research**, Vol. 19, pp. 83-84, 1982.

Lewis JL, Cheverud JM, Bachrach W, **Lew WD**: A Finite Element Based Anthropomorphic Scaling Technique Applied to Rhesus Macaque Skulls. **1983 Biomechanics Symposium**, edited by SLY Woo and RE Mates, American Society of Mechanical Engineers, pp. 209-211, 1983.

Hill JA, **Lew WD**, Lewis JL, Li Y: The Biomechanics of Anterior Cruciate Ligament Surgical Reconstruction: Preliminary Study. **Proceedings of 40th Annual Sessions of Forum on Fundamental Surgical Problems - 70th Clinical Congress - American College of Surgeons**, Vol. 35, pp. 537-539, 1984.

Lewis JL, **Lew WD**, Hill JA: Forces in Ligaments About the Normal and Repaired Knee. **1984 Advances in Bioengineering**, edited by RL Spilker, American Society of Mechanical Engineers, pp. 61-62, 1984.

Lewis JL, Hill JA, Ohland KJ, **Lew WD**: Knee Joint Laxity and Ligament Force Changes With ACL Repairs. **Transactions of the 33rd Annual Meeting of the Orthopaedic Research Society**, Vol. 12, p. 270, 1987.

Lewis JL, Margolis M, Loch D, **Lew WD**: Error Analysis for a Knee Motion Goniometer. **1987 Biomechanics Symposium**, edited by DL Butler and PA Torzilli, American Society of Mechanical Engineers, pp. 133-136, 1987.

Lewis JL, **Lew WD**, Hanley P, Kirstukas S, Hunter RE, Kowalczyk C: Variability and Load Sharing in ACL Repairs. **Transactions of the 34th Annual Meeting of the Orthopaedic Research Society**, Vol. 13, p. 127, 1988.

Hunter RE, Lewis JL, **Lew WD**, Kowalczyk C, Settle W: Biomechanics of ACL Reconstructions: Effect of Initial Graft Length. **The 14th Annual Meeting of the American Orthopaedic Society for Sports Medicine - Book of Abstracts**, pp. 10-11, 1988.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE: Knee Joint Motion and Ligament Force in Nonaugmented and Augmented Primary Repairs of Anterior Cruciate Ligament Ruptures. **Transactions of 35th Annual Meeting of the Orthopaedic Research Society**, Vol. 14, p. 512, 1989.

Lewis JL, **Lew WD**, Hunter RE, Kowalczyk C, Engebretsen L: Effect of Initial Graft Length and Femoral Hole Location on ACL Mechanics. **Transactions of 35th Annual Meeting of the Orthopaedic Research Society**, Vol. 14, p. 217, 1989.

Lew WD, Engebretsen L, Lewis JL, Hunter RE, Kowalczyk C: Method for Setting Load Sharing in Augmented ACL Composite Grafts. **Transactions of 35th Annual Meeting of the Orthopaedic Research Society**, Vol. 14, p. 516, 1989.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE: The Effect of an Iliotibial Band Tenodesis on Intraarticular Graft Forces and Knee Joint Motion. **American Orthopaedic Society for Sports Medicine Specialty Day - Book of Abstracts**, Paper #11, 1989.

Engebretsen L, **Lew WD**, Lewis JL, Hunter RE, Benum P: Anterolateral Rotatory Instability of the Knee: Effect of Transposition of Lateral One-Third of Patellar Tendon on Knee Joint Motion and Ligament Forces. **Transactions of 36th Annual Meeting of the Orthopaedic Research Society**, Vol. 15, Section 1, p.56, 1990.

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Gertel TH, **Lew WD**, Lewis JL, Stewart N, Hunter RE: Effect of ACL Graft Pretension Direction, Magnitude and Flexion Angle on Knee Biomechanics. **Program - Combined Congress of the International Arthroscopy Association and the International Society of the Knee**, Paper #110, 1991.

Janevic JT, Craig EV, Hsu K-C, Engebretsen L, **Lew WD**: Biomechanics of Repair of Anterior Glenohumeral Instability. **Transactions of 38th Annual Meeting of the Orthopaedic Research Society**, Vol. 17, Section 2, p. 495, 1992.

Lewis JL, Poff B, Smith JJ, **Lew WD**: In Vivo Forces in ACL Grafts in the Goat. **1993 Biomechanics Symposium**, American Society of Mechanical Engineers, BED-Vol. 24, pp. 584-587, 1993.

Lew WD, Smith JJ, Poff BC, Lindquist C, Engebretsen L, Lewis JL: In Vivo Forces in a Two-Segment Anterior Cruciate Ligament Graft in a Goat Model. **Transactions of 40th Annual Meeting of the Orthopaedic Research Society**, Vol. 19, Section 1, p. 38, 1994.

Seme SJ, Shine JD, Arendt EA, **Lew WD**: Biomechanics of Patellofemoral and Patellotibial Ligaments in Realignment Procedures. **Transactions of 41st Annual Meeting of the Orthopaedic Research Society**, Vol. 20, Section 2, p. 697, 1995.

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Engebretsen L, Bahr R, Pena F, Shine J, Lindquist C, **Lew WD**: Ligament Force and Joint Motion in the Intact Ankle - A Cadaveric Study. **Transactions of 42nd Annual Meeting of the Orthopaedic Research Society**, Vol. 21, Section 2, p. 390, 1996.

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Engebretsen L, Bahr R, Pena F, Shine J, Lindquist C, **Lew WD**: Biomechanics of Ankle Ligament Reconstruction - Comparison of the Brostrom Repair, Watson-Jones Reconstruction and a New Anatomical Reconstruction Technique. A Cadaveric Study. Second World Congress on Sports Trauma - 22nd Annual Meeting of the American Orthopaedic Society for Sports Medicine, Lake Buena Vista, Florida, June 16-20, 1996.

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Bahr R, Pena F, Shine J, **Lew WD**, Lindquist C, Engebretsen L: Ligament Force and Joint Motion in the Intact Ankle - A Cadaveric Study. 7th Congress of the European Society of Sports Traumatology, Knee Surgery and Arthroscopy, Budapest, May 10, 1996.

Bahr R, Pena F, Shine J, **Lew WD**, Lindquist C, Tyrdal S, Engebretsen L: Endringer i ligamenttensjon og bevegelser i tibiotalar - og subtalarleddet etter ligamentrekonstruksjon i humane ankelpreparater. Hostmotet, Norsk Kirurgisk Forening, October 1996.

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Chareancholvanich K, Seki T, Bourgeault CA, **Lew WD**, Bechtold JE, Gustilo RB: Stability of Revision Impaction Allografting in a Central Cavitory Defect of the Tibia. **Transactions of 43rd Annual Meeting of the Orthopaedic Research Society**, Vol. 22, Section 2, p. 641, 1997.

Chareancholvanich K, Bourgeault CA, Loch DA, Greer N, **Lew WD**, Bechtold JE, Gustilo RB: Stability of Primary Cemented Femoral Implants with Compaction of Existing Cancellous Bone. **Transactions of 43rd Annual Meeting of the Orthopaedic Research Society**, Vol. 22, Section 1, p. 316, 1997.

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Southwell D, Bechtold JE, **Lew W**, Schmidt A, Gustilo RB: Improving the Detection of Acetabular Osteolysis Through Oblique Radiographs. **Transactions of 44th Annual Meeting of the Orthopaedic Research Society**, Vol. 23, Section 2, p. 767, 1998.

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