



**THOMAS M. GAVIN, CO, LO**  
**PERSONAL DATA**

**Phone:** (630) 936-0731

**E-mail:** [tomgavin@me.com](mailto:tomgavin@me.com)

13360 South 104<sup>th</sup> Ave  
Palos Park, Illinois 60464

**Research Interests**

Spinal orthotics, clinical and biomechanical aspects of nonoperative treatment of spinal deformity, spinal injury and low back pain.

**Teaching Interests**

Spinal Orthotic treatment, Spinal Biomechanics

**Education**

**1988**

**Certification in the Discipline of Orthotics.**

American Board for Certification in Orthotics and Prosthetics

**1986**

**Certificate in the discipline of Orthotics.**

Northwestern University Medical School  
Chicago, Illinois

**1987**

**Associate in Arts and Sciences.**

Richard J. Daley College

Chicago, Illinois

**Specialized Courses**

**2000**

**Short Course for Journal Editors**

Council of Science Editors, Inc.

San Antonio, Texas

**1995**

**Clinical Research Methodology.**

Loyola University of Chicago/Veterans Administration Hines

Hines, Illinois

**1983**

**Advances in Orthotics for Spinal Deformities**

American Academy of Orthopaedic Surgeons

Chicago, Illinois

**1978**

**Orthotic Fitters Certification Course.**

Camp Institute of Applied Technology

Chicago, Illinois

## **Professional Experience**

### **National Orthotic Spinal Specialist**

National Orthotic Program  
Hanger Clinics  
100 Tower Drive, Suite 101  
Burr Ridge, Illinois  
June 2011-December 2016

### **Teaching Associate**

Loyola University Medical Center  
Department of Orthopaedic Surgery  
Stritch School of Medicine  
2160 South First Avenue,  
Maywood, Illinois  
August 1994-December 2015

### **President, Director of Clinical Services**

BioConcepts, inc.  
Orthotic-Prosthetic Center  
100 Tower Drive, Suite 101  
Burr Ridge, Illinois  
January 1993-May 2011

### **Director of Clinical Services**

Research Design inc.  
8177 South Cass Avenue  
Darien, Illinois  
September 1988 to January 1993

### **Director of Spinal Orthotics**

Orthotics and Prosthetics West, Ltd.  
370 Summit Elgin, Illinois  
July 1988 to September 1988

### **Research Orthotist**

Veterans Administration Hospital  
Hines, Illinois  
Orthopaedic Biomechanics Laboratory  
Rehabilitation Research and Development Center  
July 1988 to **Present**

**Director of Orthotics**

Universal Orthopedic Laboratories, inc.  
2200 Roosevelt Road  
Broadview, Illinois 60153  
August 1984 to July 1988

**Consulting Faculty**

Northwestern University Medical School  
Prosthetic- Orthotic Center  
Chicago, Illinois 60611  
January 1987 to 2006

**Director of Spinal Orthotics**

Woodfield Orthopedic Services, ltd.  
870 East Higgins Road  
Schaumburg, Illinois 60173  
August 1984 to July 1988

**Director of Orthotics**

Ballert Orthopedics, inc.  
2245 West Peterson Avenue  
Chicago, Illinois 60659  
January 1984 to August 1984

**Staff Orthotist**

Universal Orthopedic Laboratories, inc.  
2160 S. First Avenue  
Maywood, Illinois  
June 1982 to January 1984

**Staff Orthotist**

Ortho- Fab Laboratories, inc.  
10147 South Western Avenue  
Chicago, Illinois 60643  
April 1980 to April 1981

**Staff Orthotic Technician**

Ortho- Fab Laboratories, inc.  
2141 West 95th Street  
Chicago, Illinois 60643  
July 1975 to October 1978

## Awards and Honors

### **Tamarack Award for Research**

American Academy of Orthotists and Prosthetists  
Orlando, Florida February 2013

**3rd Annual Thranhardt Award** for presentation: **Gavin TM: Orthotic Treatment Of Neuromuscular Scoliosis: A Biomechanical Approach**. Presented at the national assembly of the American Orthotic and Prosthetic Association, Chicago, Illinois, September 1998.

**2nd Place, Article of the year 1996.** For article by Patwardhan AG, Gavin TM, Bunch WH, Dvonch VM, Meade KP, Vanderby R and Sartori, M.: entitled A Biomechanical Comparison of the Milwaukee Brace and TLSO. *J. Prosthetics and Orthotics*, Vol. 8, No. 4, pp 115-122. Fall 1996.

**1st Annual Thranhardt Award** for study: Patwardhan AG, Venkatraman A, **Gavin TM**, Bueche M, Meade KP, Bielski R, and Ibrahim KN: entitled Geometric Analysis of Decomensation in Idiopathic Scoliosis. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Orlando, Florida. March 1996. American Academy of Orthotists and Prosthetists.

**1st Place, Article of the Year 1993.** For article by: Gavin TM, Boscardin JB, Patwardhan AG, Bunch WH, Zindrick MR, Lorenz MA and Vrbos LA: Preliminary Results of Orthotic Treatment for Chronic Low Back Pain. *J. Prosthetics and Orthotics*, Vol. 5, No. 1, pp 5-9. January 1993.

### **Technical Award for Research.**

American Academy of Orthotists and Prosthetists.  
Las Vegas, Nevada. April 1993.

**Membership In Societies**

Council of Science Editors  
**2000-2005**

Spinal Society of  
American Academy of Orthotists and Prosthetists  
**1993-Present**

North American Spine Society.  
**1993-Present**

Scoliosis Research Society.  
**1991-Present**

Illinois Society of Orthotics and Prosthetics.  
**1991-1994**

International Society for Prosthetics and Orthotics.  
**1989 -Present**

American Orthotic and Prosthetic Association (Facility Membership).  
**1988-2011**

American Academy of Orthotists and Prosthetists.  
**1988-Present**

American Board for Certification in Orthotics and Prosthetics.  
**1988-Present**

## **Publications**

### **Book Chapters**

#### **In Print**

**Gavin TM**, Bunch WH, Patwardhan AG, Meade KP and Shurr DG: Orthotic Treatment for Spinal Disorders. In Weinstein SL, Ed., *The Pediatric Spine, 2<sup>nd</sup> Edition*, Chapter 52. Lippincott-Williams and Wilkins. Pp. 895-919. Baltimore, Maryland. 2001.

Flanagan PF, **Gavin TM**, Gavin DQ and Patwardhan AG: Spinal Orthotics. In Lusardi and Nielson Eds. *Orthotics and Prosthetics in Rehabilitation*. Butterworth-Heinemann Publishers, Pp. 231-252. Newton, Massachusetts. 2000.

**Gavin TM**, Patwardhan AG, Bunch WH, Gavin D, Levine P and Fenwick L.: Principles and Components of Spinal Orthoses. In Atlas of Orthoses and Assistive Devices; 3rd Edition. American Academy of Orthopaedic Surgeons, Chapter 8, Pp 155-194. Mosby-Yearbook inc. St. Louis, Missouri. January 1997.

**Gavin TM**, Shurr D and Patwardhan A.G.: Orthotic Treatment of Spinal Disorders. In Weinstein, S.L. Ed., *The Pediatric Spine*, Vol. 2, Chapter 85. Pp 1795-1828. Raven Press, 1993.

Patwardhan AG, **Gavin TM**, Slosar P and Lorenz MA: Stabilization of Fractures of the Thoracolumbar Spine. In MA Lorenz and Akbarnia, B. Eds. *Spine; State of the Art Reviews*, Vol 7 no. 2. Pp. 203-222. May 1993.

Patwardhan AG, Bunch WH, Dvonch VM, **Gavin TM** and Goel VK: Biomechanics of Adolescent Idiopathic Scoliosis- Natural History and Treatment. In *Biomechanics of the Spine- Clinical and Surgical Perspective*. V.K. Goel and J.N. Weinstein Eds, CRC Press, PP. 97-156, 1990.

**Gavin TM**: Fabrication and Fitting of Orthoses. In WH Bunch and AG Patwardhan Eds: *Scoliosis-Making Clinical Decisions*. The CV Mosby Company, St. Louis, 1989.



## **Journal Articles**

### **In Print**

**Gavin TM**, Carandang G, Havey R, Flanagan P, Ghanayem A, and Patwardhan AG. Biomechanical analysis of cervical orthoses in flexion and extension: A comparison of cervical collars and cervical thoracic orthoses. *J Rehab Research and Development, VA.* 40(6); 527-538. Nov/Dec 2003

**Gavin TM.** The etiology and natural history of Scheuermann's kyphosis. *J Prosthet Orthot.* 15:4(Suppl), S11-S16. 2003.

Patwardhan AG, Havey RM, Carandang G, Simonds J, Voronov LI, Ghanayem AJ, Meade KP, **Gavin TM** and Paxinos O. Effect of compressive follower preload on the flexion-extension response of the human lumbar spine. *J Orthop Res.* 21(3): 540-6, May 2003.

Gomez M, Flanagan P and **Gavin T**: An Alternative Bracing Approach to Scheuermann's Disease: A Case Study. *J Prosthet Orthot*, Vol. 14, No. 3, pp 109-112. Fall 2002.

Havey R, **Gavin TM**, Patwardhan AG, Pawelczak SB, Ibrahim KN, Andersson GBJ, and Lavender S: A Reliable And Accurate Method Of Measuring Orthosis Wearing Time. *Spine*, 27(2), January, 2002

Patwardhan AG, **Gavin TM**, Bunch WH, Dvonch VM, Meade KP, Vanderby R and Sartori, M.: A Biomechanical Comparison of the Milwaukee Brace TLSO. *J Prosthet Orthot*, Vol. 8, No. 4, pp 115-122. Fall 1996.

Patwardhan AG, Rimkus A, **Gavin TM**, Bueche M, Meade KP, Bielski R and Ibrahim KN: Geometric Analysis of Decompensation in Idiopathic Scoliosis. *Spine*, Scoliosis Research Society edition, 21(10), 1192-1200. May 1996.

**Gavin TM**: Methodology-Measurements, Part I: Principles and Theory. In Research Forum, Ed T Lunsford: *J Prosthet Orthot*, Vol. 8, No. 2, pp 45-49. Spring 1996.

Havey RM, **Gavin TM**, Patwardhan AG and Meade KP: Methodology-Measurements, Part II: Instrumentation and Apparatus. In Research Forum, Ed T Lunsford: *J Prosthet Orthot*, Vol. 8, No. 2, pp 50-64. Spring 1996.

Meade KP, Patwardhan AG and **Gavin T**: Predictions of a Viscoelastic Model For Scoliosis. Proceedings of the 1995 Bioengineering Conference, Beaver Creek, Colorado, June 28-July 2, 1995, ASME BED -Vol 29, pp. 531-532, 1995.

**Gavin TM** and Patwardhan AG: Getting Started in Prosthetic-Orthotic Research. In Research Forum, Ed T Lunsford: *J Prosthet Orthot*, Vol. 5, No. 4, pp 112-114. Autumn 1993.

**Gavin TM**, Boscardin JB, Patwardhan AG, Bunch WH, Zindrick MR, Lorenz Ma and Vrbos LA: Preliminary Results of Orthotic Treatment for Chronic Low Back Pain. *J Prosthet Orthot*, Vol. 5, No. 1, pp 5-9. January 1993.

Patwardhan AG, Li S, **Gavin TM**, Lorenz MA, Meade KP and Zindrick MR: Orthotic Stabilization of Thoracolumbar Injuries-A Biomechanical Analysis of the Jewett Hyperextension Orthosis. *Spine*, North American Spine Society Edition, 15(7): 654-661, July 1990.

Patwardhan AG, Dvonch VM, Bunch WH, **Gavin TM**, Meade KP, Vanderby R and Sartori M: Orthotic Stabilization of Idiopathic Scoliotic Curves-A Biomechanical Comparison of Low Profile and Milwaukee Braces. *Advances in Bioengineering*, 1987.

**Gavin TM**, Bunch WH and Dvonch VM: The Rosenberger Scoliosis Orthosis. *J Association of Children's Prosthetic-Orthotic Clinics*, 21(3-5), Autumn-Winter 1986.

Pinzur MS, **Gavin TM**: An Improved Ankle-Foot Orthosis for the Correction of Equinus. *Orthopedics*, 7 (2): 263-264, February 1984.

### **Abstracts And Presentations**

Gavin TM, Carandang, G, Havey R, Flanagan P, Ghanayem A and Patwardhan AG: Biomechanical Analysis Of The Efficacy Of Cervical Orthoses. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists, Thranhardt Series Lectures. San Diego, California. March 2003.

Havey R, Gavin TM, Patwardhan AG, Pawelczak SB and Ibrahim KN: A Reliable And Accurate Method of Measuring Orthosis-Wearing Compliance. Presented at the Annual

Meeting of the American Academy of Orthotists and Prosthetists, Thranhardt Series Lectures. Dallas, Texas. March 2001.

Havey R, Gavin TM, Patwardhan AG, Pawelczak SB and Ibrahim KN: A Reliable And Accurate Method of Measuring Orthosis-Wearing Compliance. Presented at the 27<sup>th</sup> Annual Meeting of the International Society for the Studies of the Lumbar Spine. Adelaide, Australia. April 2000.

Havey RM, Gavin TM, Patwardhan AG, Pawelczak S and Ibrahim K: A Reliable and Accurate Method of Measuring Orthosis-Wearing Time. Presented at the American Society of Mechanical Engineers, International Mechanical Engineering Congress. Nashville, Tennessee. November 1999.

Havey R, Gavin TM, Patwardhan AG, Pawelczak SB and Ibrahim KN: A Reliable and Accurate Method of Measuring Orthosis-Wearing Time. Presented at the 14<sup>th</sup> Annual Meeting of the North American Spine Society. Chicago, Illinois. October 1999.

Patwardhan AG, Havey R, Diener H, Ghanayem A, Meade KP, Lim TH, Gavin TM and Zindrick MR: Follower Load Stabilizes the Lumbar Spine without Compromising Sagittal Mobility. Poster Presentation at the 14<sup>th</sup> Annual Meeting of the North American Spine Society. Chicago, Illinois. October 1999.

Gavin TM, Patwardhan AG and Meade KP: Preventing Coronal Plane Decompensation In Idiopathic Scoliosis: A Geometric Analysis of Orthotic Correction of Right Thoracic, Left Lumbar Curves. Presented at the 1999 Summer Bioengineering Conference of the American Society of Mechanical Engineers. Big Sky, Montana. June 1999.

Gavin TM: Biomechanics of Spinal Orthoses. Presented at the XIV Interbor World Congress. Boston, Massachusetts. July 1999.

Gavin TM, Patwardhan AG, Galinski A, Kascar S and Meade KP: Geometric Analysis Of Post-Correction Decompensation In Orthoses For The Treatment Of Idiopathic Scoliosis. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Chicago, Illinois. September 1998.

Patwardhan AG, Lee B, Meade KP, Havey R and Gavin TM: The Spinal Follower Load: Effect of Spinal Orthoses. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Chicago, Illinois. September 1998.

Gavin TM: Orthotic Treatment Of Neuromuscular Scoliosis: A Biomechanical Approach. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Chicago, Illinois. September 1998.

Patwardhan AG, Lee B, Meade KP, Havey R and Gavin TM: The Spinal Follower Load: Effect of Spinal Orthoses. Presented at the Continuing Education Conference 3-98 of the American Academy of Orthotists and Prosthetists. Reno, Nevada. June 1998.

Patwardhan AG, Lee B, Meade KP, Havey R and Gavin TM: Clinical Principles of the Follower Load. Presented at the Continuing Education Conference 2-98 of the American Academy of Orthotists and Prosthetists. Bloomingdale, Illinois. May 1998.

Patwardhan AG, Lee B, Meade KP, Havey R and Gavin TM: The Follower Load Path Is The Path of Spinal Stability: Lumbar Spine Stability and Implications to Muscle Co-activation. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Miami, Florida. April 1998.

Gavin TM, Patwardhan AG, Galinski A and Meade KP: Analysis of Geometric Outcome of Orthotic Treatment of Idiopathic Scoliosis. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Miami, Florida. April 1998.

Gavin TM and Gavin D: Orthotic Treatment of the Neuromuscular Spine. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Miami, Florida. April 1998.

Gavin TM: Indications for Spinal Orthoses. Presented at the Continuing Education Conference 2-97 of the American Academy of Orthotists and Prosthetists. St. Louis, Missouri. April 1997

Meade KP, Patwardhan AG and Gavin, T: A Viscoelastic Model for the Natural History of Adolescent Idiopathic Scoliosis. Poster presentation at the 1996 117<sup>th</sup> Winter Annual Meeting of the American Society of Mechanical Engineers. November 1996.

Patwardhan AG, Venkatraman A, Gavin TM, Bueche M, Meade KP, Bielski R, and Ibrahim KN: Geometric Analysis of Decomensation in Idiopathic Scoliosis. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Orlando, Florida. March 1996.

Gavin TM: Current Indications for Spinal Orthoses and Incongruities in Their Use. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Orlando, Florida. March 1996.

Meade KP, Patwardhan AG and Gavin T: Predictions of a Viscoelastic Model for Scoliosis. Presented at the 1995 American Society of Mechanical Engineers Summer Bioengineering Conference. Beaver Creek, Colorado. July 1995.

Meade KP, Patwardhan AG and Gavin T: Biomechanics of Scoliosis. Colloquium presented at the Illinois Institute of Technology. March 1995.

Patwardhan AG, Venkatraman A, Gavin TM, Bueche M., Meade KP, Bielski R, and Ibrahim KN: Geometric Analysis of Decompensation in Idiopathic Scoliosis. Presented at the 30th Annual Meeting of the Scoliosis Research Society. Asheville, North Carolina. September 1995.

Gavin TM: Current Indications for Spinal Orthoses and Incongruities in Their Use. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 3-95. Hartford, Connecticut. August 1995

Gavin TM and Patwardhan AG: Current and Future Trends in Spinal Orthotic Research. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. New Orleans, Louisiana. March 1995.

Gavin TM and Patwardhan AG: Research Methodology for Orthotics and Prosthetics. Presented at the Minnesota Chapter of the American Academy of Orthotists and Prosthetists. White Bear Lake, Minnesota. June 1994.

Gavin TM: Orthotic Treatment for Spinal Injuries; Non-Operative and Post-Operative. Presented at the 1994 Combined Meeting of the American Academy of Orthotists and Prosthetists and the American Orthotic and Prosthetic Association. Springfield, Massachusetts. April 1994.

Gavin TM: Principles of Orthotic Treatment for Spinal Deformity and Injury. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 3-93. Columbus, Ohio. October 1993.

Gilbertson L, Goel VK, Patwardhan AG, Havey R, Morris T and Gavin TM: A Biomechanical Study of Spinal Hyperextension Orthoses. Presented at the Seventh World Congress of the International Society for Prosthetics and Orthotics. Chicago, Illinois. July 1992.

Gavin TM, Boscardin JB, Patwardhan AG, Bunch WH, Zindrick MR, Lorenz MA and Vrbos LA: Orthotic Treatment for Chronic Low Back Pain, Results in 36 Patients. Presented at the Nineteenth World Congress of the International Society for Prosthetics and Orthotics. Chicago, Illinois. July 1992.

Gavin TM, Boscardin JB, Patwardhan AG, Zindrick MR, Lorenz MA and Vrbos LA: Orthotic Treatment for Chronic Low Back Pain; A Prospective Study. Presented at the Annual Meeting of the International Society for the Studies of the Lumbar Spine. Chicago, Illinois. May 1992.

Gavin TM: Current Concepts of Orthotic Treatment for Scoliosis; Methods and Expectations. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-92. Albany, New York. May 1992.

Patwardhan AG, Li S, Gavin TM, Bunch WH and Meade KP: A Biomechanical Analysis of Surgical Spontaneous Correction in Combined Thoracic and Lumbar Idiopathic Scoliosis. Presented at the Annual Spring meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Rosemont, Illinois. March 1992.

Gavin TM, Boscardin JB, Patwardhan AG, Zindrick MR, Lorenz MA and Vrbos LA: Preliminary Results of Orthotic Treatment for Chronic Low Back Pain. Presented at the Annual Spring Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Rosemont, Illinois. March 1992.

Gilbertson L, Goel VK, Patwardhan AG, Havey R, Morris T and Gavin TM: The Biomechanical Function of "Three Point" Hyperextension Orthoses. Presented at the 112th Winter Annual Meeting of the American Society of Mechanical Engineers. Atlanta, Georgia. December 1991.

Gavin TM, Boscardin JB, Patwardhan AG, Zindrick MR, Lorenz MA and Vrbos LA: Orthotic Treatment For Chronic Low Back Pain; Methods and Initial Results. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference, 3-91. St. Paul, Minnesota. October 1991.

Patwardhan AG, Li S, Gavin TM, Bunch WH and Meade K: The Concept of Spontaneous Correction of Lumbar Compensatory Curves in Idiopathic Scoliosis. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference, 3-91. St. Paul, Minnesota. October 1991.

Gavin TM, Boscardin JB, Patwardhan AG, Zindrick MR, Lorenz MA and Vrbos LA: Preliminary Results of Orthotic Treatment for Chronic Low Back Pain. Presented at the Sixth Annual Meeting of the North American Spine Society. Keystone, Colorado. June 1991.

Patwardhan AG, Li S, Gavin TM, Bunch WH and Hollyfield R: A Biomechanical Analysis of Surgical Correction in Combined Thoracic and Lumbar Idiopathic Scoliosis. Presented at the 37th Annual Meeting of the Orthopaedic Research Society. Anaheim, California. March 1991.

Patwardhan AG, Li S, Hollyfield R and Gavin TM: A Biomechanical Analysis of Surgical Correction in Combined Thoracic and Lumbar Idiopathic Scoliosis. Presented at the 111<sup>th</sup> Annual Winter Meeting of the American Society of Mechanical Engineers. Dallas, Texas. November 1990.

Gavin TM and Boscardin JB: Preliminary Results of the Usage of Willner's Instrument for Spinal Stabilization: A report of 28 Cases. Presented at the Annual Summer Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Grand Rapids, Michigan. June 1990.

Patwardhan AG, Li S, Gavin TM, Lorenz MA and Meade KP: Effectiveness of Three-Point Hyperextension Orthoses on Thoracolumbar Injuries. 13th Annual Conference of the Rehabilitation Engineering Society of North America. Washington D.C. June 1990.

Gavin TM and Patwardhan AG: The Role of the Computer Model in the Analysis of Spinal Orthoses. Presented at the American Academy of Orthotists and Prosthetists, Continuing Education Conference 2-90. Niagara Falls, New York. May 1990.

Gavin TM and Patwardhan AG: Orthotic Treatment of Thoracolumbar Fractures; Theoretical and Clinical Aspects. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-90. Niagara Falls, New York. May 1990.

Gavin TM and Boscardin JB: W.I.S.S. Device: Usage for the Treatment of Low Back Pain. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-90. Niagara Falls, New York. May 1990.

Gavin TM, Bunch WH and Pawelczak SB: The Rosenberger Scoliosis Orthosis; Technical and Theoretical Overview. Presented at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-90. Niagara Falls, New York. May 1990.

Patwardhan AG, Li S, Gavin TM, Lorenz MA and Meade KP: A Biomechanical Analysis of the Jewett Hyperextension Orthosis. Presented at the specialty day, 57th Annual Meeting of the American Academy of Orthopaedic Surgeons. New Orleans, Louisiana. February 1990.

Gavin TM and Boscardin JB: Preliminary Results in 21 Patients Treated with the W.I.S.S. for Low Back Pain. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Phoenix, Arizona. January 1990.

Patwardhan AG, Li S, Gavin TM, Lorenz MA, Meade KP and Zindrick MR: Orthotic Stabilization of Thoracolumbar Injuries. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Phoenix, Arizona. January 1990.

Gavin TM and Fisk JR and Patwardhan AG: Orthotic Treatment of Scoliosis in the High Thoracic Spine. Presented at the Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists. Phoenix Arizona. January 1990.

Gavin TM, Bunch WH and Pawelczak SB: The Rosenberger Scoliosis Orthosis; Practical Applications. Presented at the Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists. Phoenix, Arizona. January 1990.

Patwardhan AG, Li S, Gavin TM, Lorenz MA, Meade KP and Zindrick MR: Effect of Injury and Orthotic Support on Segmental Motion of the Thoracolumbar Spine. Presented at the Winter Annual Meeting of the American Society of Mechanical Engineers. San Francisco, California. December 1989.

Patwardhan AG, Li S, Gavin TM, Lorenz MA and Meade KP: Orthotic Stabilization of Thoracolumbar Injuries. Presented at the Fourth Annual Meeting of the North American Spine Society. Quebec City, Quebec. July 1989.

Gavin TM and Fisk JR: Orthotic Treatment of High Thoracic Scoliosis. Presented at the Annual Meeting of the Association of Children's Prosthetic Orthotic Clinics. Chicago, Illinois. June 1989.

Gavin TM: C.T.L.S.O. and T.L.S.O. Treatment of High Thoracic Scoliosis. Presented at the Annual Spring Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Lincolnshire, Illinois. April 1989.

Patwardhan AG, Li S, Gavin TM, Meade KP and Lorenz MA: Effect of Injury and Orthotic Support on the Stability of the Spine. Presented at the Annual International Conference of the IEEE-EMBS. New Orleans, Louisiana. November 1988.

Patwardhan AG, Li S, Gavin TM, Meade KP and Lorenz MA: A Biomechanical Study of Orthotic Stabilization in Nonoperative Treatment of Spinal Fractures. Presented at the 23rd Annual Meeting of the Scoliosis Research Society. Baltimore, Maryland. September 1988.

Patwardhan AG, Dvonch VM, Bunch WH, Gavin TM, Meade KP, Vanderby R, Sartori M: Orthotic Stabilization of Idiopathic Scoliotic Curves- A Biomechanical Comparison of Low Profile and Milwaukee Braces. Presented at the 34th Annual Meeting of the Orthopaedic Research Society. Atlanta, Georgia. February 1988.

Gavin TM, Patwardhan AG, Lorenz MA: Orthotics for Traumatic Injury on the Neurologically Intact Adult Spine. Presented at the Annual Winter Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Park Ridge, Illinois. November 1987.

Patwardhan AG, Dvonch VM, Bunch WH, Gavin TM, Meade KP, Vanderby R, Sartori M: A Biomechanical Comparison of Low Profile and Milwaukee Braces in Orthotic Treatment for Idiopathic Scoliosis. Presented at the National Assembly of the American Orthotic and Prosthetic Association. San Francisco, California. September 1987.

Patwardhan AG, Dvonch VM, Bunch WH, Gavin TM, Meade KP, Vanderby R, Sartori M: Orthotic Stabilization of Idiopathic Scoliotic Curves- A Biomechanical Comparison of Low Profile And Milwaukee Braces. Presented at the 22nd Annual Meeting of the Scoliosis Research Society. Vancouver, British Columbia. September 1987.

Dvonch VM, Patwardhan AG, Bunch WH, Gavin TM, Sartori M, Vanderby R, Meade KP: Effect of Decompensation on Orthotic Treatment for Scoliosis. Presented at the Summer Bioengineering Conference of the American Society of Mechanical Engineers. Cincinnati, Ohio. June 1987.



Gavin TM: Clinical Comparison of the Milwaukee and Low Profile Orthoses. Presented at the Annual Summer Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Indianapolis, Indiana. June 1987.

Gavin TM: The Rosenberger Scoliosis Orthosis. Presented at the Annual Autumn Meeting of the Midwest Chapter of the American Academy of Orthotists and Prosthetists. Chicago, Illinois. October 1986.

### **Grand Rounds**

Gavin, TM: Biomechanical and Clinical Parameters of Orthotic Treatment of Adult Spine Disorders. Grand Rounds. Departments of Orthopaedic and Neurosurgery. Loyola University of Chicago. Maywood, Illinois. March 1995.

Gavin, TM: Biomechanical and Clinical Parameters of Orthotic Treatment of Adult Spine Disorders. Grand Rounds. Department of Surgery, Division of Orthopaedics. University of Chicago Medical Center. Chicago, Illinois. April 1994.

Gavin, TM: Biomechanical and Clinical Parameters of Orthotic Treatment of Adult Spine Disorders. Regional Neurosurgical Grand Rounds. University of Illinois Hospitals and Clinics. Chicago, Illinois. June 1994

Gavin, TM: Biomechanical and Clinical Parameters of Orthotic Treatment of Adult Spine Disorders. Grand Rounds. Department of Neurosurgery. University of Illinois Hospitals and Clinics. Chicago, Illinois. June 1994

Gavin, TM: Biomechanics and Clinical Parameters of Scoliosis Orthoses. Grand Rounds. Department of Surgery, Division of Orthopaedics. University of Chicago Medical Center, Chicago, Illinois, March 1993.

### **Invited Symposiums**

Gavin, T.M, Gomez-Torres, J.M., Patwardhan, A.G.: Orthotic Treatment for Spinal Disorders. Sociedad Mexicana de Ortesistas y Protesistas Mexico City, D.F. Mexico. December 2000.

Gavin, T.M: Use of Spinal Orthoses; Principles and Methods. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M: Use of Spinal Orthoses; Biomechanics. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M: HKAFO and Pelvic Obliquity; Principal Design and Componentry. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M and Fisk, J.R: Interaction between Surgery and Orthotics. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M: Joint Properties and Function. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M: Materials Properties. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/TATCOT. Moshi, Tanzania. August 2000.

Gavin, T.M: Use of Spinal Orthoses; Principles and Methods. The International Shortterm Course on Management of Polio. International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin, T.M: Use of Spinal Orthoses; Biomechanics. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin, T.M: HKAFO and Pelvic Obliquity; Principal Design and Componentry. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin, TM and Fisk, J.R: Interaction between Surgery and Orthotics. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin, T.M: Joint Properties and Function. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin, T.M: Materials Properties. The International Shortterm Course on Management of Polio. The International Society for Prosthetics and Orthotics/ World Health Organisation/Mobility India. Bangalore, India. November 1999.

Gavin TM: Orthotic Treatment for Idiopathic Scoliosis. Presented at the Annual Meeting of the Scoliosis Association. Rush-Presbyterian St. Lukes Medical Center. Chicago, Illinois. October 1999.

Patwardhan AG, Gavin TM, Ghanayem AJ: Biomechanics of Implants and Orthoses for Thoracolumbar Injuries. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. New Orleans, LA. March 1999.

Gavin TM: Orthotic Management for Spinal Disorders; Clinical Principles. Presented at Laboratorio Gilete/Rotario Club of Northern Colombia Spine Conference. Bogota, Colombia. November 1998.

Gavin TM: Orthotic Management for Spinal Disorders; Biomechanical Principles. Presented at Laboratorio Gilete/Rotario Club of Northern Colombia Spine Conference. Bogota, Colombia. November 1998.

Gavin TM: The Use of Spinal Orthoses in the Management of Chronic Poliomyelitis: A Review of Literature and a Biomechanical Approach to Orthotic Treatment. Polio Consensus Conference of the World Health Organisation, The Tunisian Ministries of Health and the International Society for Prosthetics and Orthotics. Hammamet, Tunisia, Africa. November 14-24 1997.

Patwardhan AG, Gavin TM and Havey R: Preliminary Results of a Compliance Monitor for Spinal Orthosis Wearing. Presented at the Veterans Administration Orthotic Lab Chiefs Conference. New Orleans, Louisiana. August 1997.

Gavin TM, Patwardhan AG: Orthotic Treatment for Disorders of the Adult Spine. Presented at the Veterans Administration SCI/Prosthetics Meeting. Las Vegas, Nevada. July 1997

Gavin D and Gavin TM: Clinical and Biomechanical Parameters of Orthotic Treatment for Idiopathic Scoliosis. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. San Francisco, California. March 1997.

Gavin TM, Patwardhan AG: Clinical and Biomechanical Parameters of Scoliosis Orthoses. Acromed Corp. Brace Partners Consensus Conference. Montreal, Quebec. March 1997.

Gavin TM, Patwardhan AG, Goel VK: Clinical and Biomechanical Parameters of Spinal Fracture Orthoses. Acromed Corp. Brace Partners Consensus Conference. Key Biscayne, Florida. November 1996.

Gavin, TM: Current Concepts in Spinal Orthotics. Department of Orthotics, University of Wisconsin Medical Center. Madison, Wisconsin. February 1997

Meade KP, Patwardhan AG, Gavin T: A Viscoelastic Model of Scoliosis. Invited Lecture at Rose-Hulman Institute of Technology. March 1996.

Gavin, TM: Biomechanical and Clinical Parameters of Spinal Orthotic Treatment. Physical Therapy Senior Class. Chicago Medical School. North Chicago, Illinois. February 1995.

Gavin, TM: Clinical Research in Spinal Orthotics; Past and Present. Presented at Conference on Prosthetic and Orthotic Research for the Twenty-First Century. National Institute for Medical Rehabilitation Research, National Institutes of Health. Bethesda, Maryland. July 1992.

Gavin, TM, Patwardhan, A.G.: Basic Science Research in Spinal Orthotics; Past and Present. Presented at Conference on Prosthetics and Orthotics Research for the Twenty-First Century. National Institute for Medical Rehabilitation Research, National Institutes of Health. Bethesda, Maryland. July 1992.

### **Instructional Courses**

Meade K, Gavin TM, Patwardhan AG: Biomechanics of Orthotic Treatment for Idiopathic Scoliosis. Presented for the Spinal Certificate Module. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Phoenix Arizona. October 2001.

Flanagan P, Gavin TM and Patwardhan AG: Orthotic Management for Low Back Pain. Presented for the Spinal Certificate Module. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Phoenix Arizona. October 2001.

Gavin TM and Patwardhan AG: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Phoenix Arizona. October 2001.

Gavin TM and Patwardhan AG: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the National Assembly of the American Orthotic and Prosthetic Association. Phoenix Arizona. October 2001.

Meade K, Gavin TM, Patwardhan AG: Orthotic Treatment for Idiopathic Scoliosis. Presented for the Spinal Certificate Module. Presented at the Continuing Education Conference 2, American Academy of Orthotists and Prosthetists. Chicago, Illinois, July 2001.

Carandang G, Flanagan P, Gavin TM and Patwardhan AG: Orthotic Treatment of the Cervical Spine. Presented at the Continuing Education Conference 2, American Academy of Orthotists and Prosthetists. Chicago, Illinois, July 2001.

Gavin TM and Patwardhan AG: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the Continuing Education Conference 2, American Academy of Orthotists and Prosthetists. Chicago, Illinois, July 2001.

Gavin TM and Patwardhan AG: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the Continuing Education Conference 2, American Academy of Orthotists and Prosthetists. Chicago, Illinois, July 2001.

Gavin TM: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Dallas, Texas. March 2001.

Gavin TM: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module. Presented at the Annual Meeting of the American Academy of Orthotists and Prosthetists. Dallas, Texas. March 2001.

Gavin TM: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 3-2000. Las Vegas, Nevada. November 2000.

Gavin TM: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 3-2000. Las Vegas, Nevada. November 2000.

Gavin TM: Orthotic Treatment for Idiopathic Scoliosis. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 3-2000. Las Vegas, Nevada. November 2000.

Gavin TM: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the National Assembly of the American Orthotic-Prosthetic Association. Washington, D.C. October 2000.

Gavin TM: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the National Assembly of the American Orthotic-Prosthetic Association. Washington, D.C. October 2000.

Gavin TM: Orthotic Treatment of the Cervical Spine. Presented for the Spinal Certificate Module, at the National Assembly of the American Orthotic-Prosthetic Association. Washington, D.C. October 2000.

Gavin TM: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-2000. Memphis, Tennessee. September 2000.

Gavin TM: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-2000. Memphis, Tennessee. September 2000.

Gavin TM: Orthotic Treatment of the Cervical Spine. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Continuing Education Conference 2-2000. Memphis, Tennessee. September 2000.

Gavin TM: Principles and Components of Spinal Orthoses. Sponsored by Atlanta International/DeRoyal, inc. Presented at the Summer Annual Meeting of the International Association of Orthotics and Prosthetics. Nassau, Bahamas. June 2000.

Gavin TM: Natural History of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Annual Meeting. San Diego, California. March 2000.

Gavin TM: Biomechanics of Traumatic Thoracolumbar Injuries. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Annual Meeting. San Diego, California. March 2000.

Flanagan P, Gavin TM and Patwardhan AG: Orthotic Management for Low Back Pain. Presented for the Spinal Certificate Module, at the American Academy of Orthotists and Prosthetists Annual Meeting. San Diego, California. March 2000.

Gavin TM: Principles and Components of Spinal Orthoses. Sponsored by Atlanta International inc. Presented at the Summer Annual Meeting of the International Association of Orthotics and Prosthetics. Atlanta, Georgia.

Gavin TM, Patwardhan AG and Meade KP: Biomechanics of Orthoses. Presented at Dale Rowe, M.D. Chairman *Instructional Course on Current Concepts in Bracing*. Scoliosis Research Society Bracing Committee, 30<sup>th</sup> Annual Meeting of the Scoliosis Research Society, New York, New York, September 1998.

Gavin TM: Orthotic Treatment of the Pediatric Patient. Marian Joy Rehabilitation Center. Wheaton, Illinois. November 1990.

Gavin TM: Spinal Orthotics for Spinal Deformity and Injuries. University of Iowa Pediatric Orthopaedic Service, Department of Physical Therapy and American Prosthetics, Iowa City, Iowa. October 1989.

### **Workshop Faculty**

Gavin TM, Shangali HG, Henricksen A, Rechsteiner M, DuBont A: Hands-on Workshop on Lower Limb Orthoses for Poliomyelitis. Moshi, Tanzania. August 2000.

Assistive Technology Research and Development Hands-On Workshop. Sponsored by Illinois Institute of Technology, Pritzker Institute of Medical Engineering and the National Institutes of Health. Glenview, Illinois. June 2000.

Gavin TM, Shangali HG, Henricksen A, Rechsteiner M: Hands-on Workshop on Lower Limb Orthoses for Poliomyelitis. Bangalore, India. November 1999.



## **TEACHING**

### **NORTHWESTERN UNIVERSITY MEDICAL SCHOOL, PROSTHETIC-ORTHOTIC CENTER**

Chicago, Illinois

#### **Orthotics 703:**

Spinal Lower and Upper Limb Course for Physicians and Surgeons.

Gavin TM: Biomechanics of Scoliosis and Orthotic Treatment Parameters.

Gavin TM: Fitting Parameters of Scoliosis Orthoses.

Annually 1988-Present

---

#### **Orthotics 761:**

Spinal Lower and Upper Limb Certificate Course for Orthotists.

CTL SO (Milwaukee Brace) Fabrication

CTL SO (Milwaukee Brace) Fitting

CTL SO (Milwaukee Brace) and TLSO Pad Placement

CTL SO (Milwaukee Brace) and TLSO Pad Loading.

Bi-Annually 1987-1997

---

Gavin TM, Gomez JM: Principles of Orthotic Treatment of Spinal Deformities.

Gavin TM: Principles of Orthotic Treatment of Spinal Trauma.

Gavin TM: Principles of Orthotic Treatment of Chronic Low Back Pain.

Gavin TM: Principles of Post-Operative Orthotic Management.

Gavin TM, Patwardhan AG: Biomechanics of Spinal Deformities.

Gavin TM, Patwardhan AG: Biomechanics of Spinal Instability: Macro-Micro Instabilities.

Gavin TM, Patwardhan AG: Biomechanics of Spinal Treatment: Non-Operative.

Gavin TM, Patwardhan AG: Biomechanics of Spinal Treatment: Operative.

Bi-Annually 1987-Present

---

**Orthotics 731:**

Board Exam Review Course in Orthotics for Orthotists:

Orthotic Treatment for Spinal Deformities: An Overview.

Bi-Annually 1987-1994

**Loyola University Of Chicago, Department Of Orthopaedic Surgery And  
Rehabilitation, Maywood, Illinois**

Basic Science In-Training Lectures for Orthopaedic Surgery Residents.

Gavin TM: Principles of Orthotic Treatment of Spinal Deformities.

Gavin TM: Principles of Orthotic Treatment of Spinal Trauma.

Gavin TM: Principles of Orthotic Treatment of Chronic Low Back Pain.

Gavin TM: Principles of Post-Operative Orthotic Management.

Once Every 24 months. 1987- Present

---

**University Of Illinois, School Of Bioengineering, Chicago, Illinois  
Graduate Course on Spinal Biomechanics for Bioengineers:**

Professor: AG Patwardhan, PhD

Gavin TM: Principles of Orthotic Treatment of Spinal Deformities.

Gavin TM: Principles of Orthotic Treatment of Spinal Trauma.

Gavin TM: Principles of Orthotic Treatment of Chronic Low Back Pain.

Gavin TM: Principles of Post-Operative Orthotic Management.

Yearly. 1994- 1998

---

**VETERANS ADMINISTRATION HOSPITAL,  
Hines, Illinois**

**Course for Physical Medicine and Rehabilitation Residents.**

Gavin TM: Principles of Orthotic Treatment for the Adult Spine.

Annually 1987-1995,  
October 2000.

## **FUNDED RESEARCH**

### **Co-Principal Investigator**

Biomechanical Comparison of Three different Thoracolumbosacral Orthoses.

*DeRoyal. Inc./Atlanta International. Inc.*

September 2003-September 2004

Funding Level: \$70,000.00

### **Co-Principal Investigator**

Biomechanical Comparison of Four Different Cervical Orthoses.

*International Healthcare Devices.*

June 2000-March 2001

Funding Level: \$55,000.00

### **Co-Principal Investigator**

Compliance Monitor to Measure Patient Wearing-Time for Spinal Orthoses

*Veterans Administration*

October 1995-September 1998

Funding Level: \$201,800.00

### **Co-Investigator**

Orthotic Stabilization of Thoracolumbar Injuries

*Veterans Administration*

January 1989 to December 1991

Funding Level: \$383,800.00

## **CURRENT RESEARCH PILOTS**

### **High Fidelity Modeling of the Human Spine on Parallel Computing Platforms.**

Argonne National Laboratories, Department of Mechanical Engineering, Argonne, Illinois.

Illinois Institute of Technology, Department of Mechanical, Materials and Aerospace Engineering, Chicago, Illinois.

Musculoskeletal Biomechanics Laboratory, VA Hines, Hines Illinois.

Loyola University Chicago, Department of Orthopaedic Surgery and Rehabilitation,  
Maywood, Illinois.

BioConcepts, inc. Orthotic-Prosthetic Centers, Burr Ridge, Illinois.

Orthotic Treatment for Osteoporotic Geriatric Patient with Pathologic Spinal Fractures.

BioConcepts, inc. Orthotic-Prosthetic Centers, Burr Ridge, Illinois.

Musculoskeletal Biomechanics Laboratory, VA Hines, Hines Illinois.

Behavior Sciences, Illinois Institute of Technology, Chicago, Illinois.

Hinsdale Orthopaedic Associates, Hinsdale, Illinois.

Loyola University Chicago, Department of Orthopaedic Surgery and Rehabilitation,  
Maywood, Illinois.

University of Chicago Spine Center, Chicago, Illinois.

Parkview Musculoskeletal Institute, Palos Heights, Illinois.

2000- Present

## **Research Collaboration**

Development and Testing of a Spinal Orthosis Compliance Monitor.

Musculoskeletal Biomechanics Laboratory, VA Hines, Hines Illinois.

Loyola University Chicago, Department of Orthopaedic Surgery and Rehabilitation, Maywood, Illinois.

BioConcepts, inc. Orthotic-Prosthetic Centers, Burr Ridge, Illinois.

Rush Presbyterian-St. Luke's Medical Center, Department of Orthopaedic Surgery, Chicago, Illinois.

October 1993-2000.

Outcomes of Orthotic Treatment of Idiopathic Scoliosis with the Rosenberger Scoliosis Orthosis.

BioConcepts, inc. Orthotic-Prosthetic Centers, Burr Ridge, Illinois.

1989-present

## **Orthotic Development**

Design and testing of the Class II Posterior Shell TLSO for the Treatment of Pathological Fractures.

Design and Testing of a new Dacron and elastic lumbosacral orthosis with rigid lumbar extension panel. July 1995-Present

Gavin TM, Boscardin JB, Patwardhan AG: Development of the protocols for the Orthotic Testing and Orthotic Treatment for Chronic Low Back Pain and the introduction of these methods into clinical practice. January 1990-December 1995.

Gavin TM, Bunch WH, Patwardhan AG, Meade KP: Design and Development of the Rosenberger Scoliosis Orthosis. Treatment Protocols and Implementation into Clinical Practice. July 1983- January 1989.

## **Appointments**

**Reviewer:** *Journal of Bone and Joint Surgery*. 2001-2007

**Reviewer:** *The Journal of IEEE*. 1998-2005

**Editor-in-Chief:** *The Journal of Prosthetics and Orthotics*. December 1996-December 2000.

**Chairman:** Spine Society of the *American Academy of Orthotists and Prosthetists*. December 1996-December 1998.

**Editorial Board Member:** *The Journal of Prosthetics and Orthotics*. December 1995-December 1996.

**Specialty Reviewer:** *The Journal of Prosthetics and Orthotics*. December 1992-December 1995.

**Officer, Education Chairman:** Midwest Chapter of the American Academy of Orthotists and Prosthetists, January 1993-August 1994.

**Executive Committee** of the Fox-Desplaines Chapter of the Muscular Dystrophy Association: May 1990-May 1992

**Officer** of the Fox-Desplaines Chapter of the Muscular Dystrophy Association: May 1989-May 1990.

**Clinical Advisory Committee:** Rehabilitation Research and Development Center, Veterans Administration Hospital, Hines Illinois. March 1989-March 1996.