

CURRICULUM VITAE

Michael G. Ehrlich, M.D.

PERSONAL INFORMATION

Administrative Address: Rhode Island Hospital
Department of Orthopaedics
2 Dudley Street
COOP Building
Providence, Rhode Island 02903

Administrative phone (401) 444-5895
Fax (401) 444-6518
Email MEhrlich@Lifespan.org
Michael_Ehrlich@Brown.edu

EDUCATION

1959 Dartmouth College
Hanover, New Hampshire
Degree: A.B.
Honors: Summa cum Laude
Phi Beta Kappa
Thesis Award

1963 Columbia University College of Physicians & Surgeons
New York, New York
Degree: M.D.
Honors: Alpha Omega Alpha

POSTDOCTORAL TRAINING

1963-64 ***Mixed Medical Internship***
Bellevue Hospital
First Medical Division/Columbia
New York, New York

1964-65 ***Assistant Medical Resident***
Bellevue Hospital
First Medical Division/Columbia
New York, New York

1965-67 ***Clinical Instructor***
Preventive Medicine
Ohio State University
Columbus, Ohio

1967-69 ***Assistant Resident***
Department of Orthopaedic Surgery
Mt. Sinai Hospital
New York, New York

1969-70 ***Chief Resident***
Department of Orthopaedic Surgery
Mt. Sinai Hospital
New York, New York

1970-72 ***Research/Pediatric Fellow***
Department of Orthopaedics
Hospital for Joint Diseases
New York, New York

ACADEMIC APPOINTMENTS

1965-67 ***Clinical Instructor***
Preventive Medicine
Ohio State University, Columbus, Ohio

1970-72 ***Clinical Instructor***
Department of Orthopaedics
Mt. Sinai Hospital, New York, New York

1972-75 ***Instructor***
Department of Orthopaedics
Harvard Medical School, Boston, Massachusetts

1975-78 ***Assistant Professor***
Department of Orthopaedics
Harvard Medical School, Boston, Massachusetts

1978-90 ***Associate Professor***
Department of Orthopaedics
Harvard Medical School, Boston, Massachusetts

1990-present ***Professor and Chairman***
Department of Orthopaedics
Brown Medical School, Providence, Rhode Island

1998-present ***Vincent Zecchino, M.D. Professor of Orthopaedics***
Department of Orthopaedics
Brown Medical School, Providence, Rhode Island

HOSPITAL APPOINTMENTS

1970-72 ***Assistant Adjunct Orthopaedic Surgeon***
Hospital for Joint Diseases, New York, New York

1970-72 ***Assistant Attending Orthopaedic Surgeon***
Mt. Sinai Hospital, New York, New York

1970-72 ***Assistant Attending Orthopaedic Surgeon***
City Hospital Center at Elmhurst, Elmhurst, New York

1972-89 ***Chief, Pediatric Orthopaedic Service***
Massachusetts General Hospital, Boston, Massachusetts

1974-89 ***Consultant in Orthopaedics***
Department of Medicine, McLean Hospital, Belmont,
Massachusetts

1978-82 ***Associate Orthopaedic Surgeon***
Massachusetts General Hospital, Boston, Massachusetts

1990-present ***Consultant Staff***
Women and Infant's Hospital, Providence, Rhode Island

1990-present ***Surgeon-in-Chief, Department of Orthopaedics***
Rhode Island Hospital, Providence, Rhode Island

1993-present ***Chairman, Department of Rehabilitation Medicine***
Rhode Island Hospital, Providence, Rhode Island

1998-present ***Surgeon-in-Chief, Department of Orthopaedics***
Miriam Hospital, Providence, Rhode Island

AWARDS, HONORS, MAJOR NATIONAL APPOINTMENTS

| | |
|----------------|---|
| 1974-79 | Examination Writing Committee Orthopaedic In-Training Examination American Academy of Orthopaedic Surgeons, Chicago, IL |
| 1976-79 | Secretary-Treasurer Orthopaedic Research Society, Chicago, IL |
| 1977-81 | Permanent Member-Study Section in Orthopaedics & Applied Physiology National Institutes of Health, Washington, DC |
| 1979-83 | Examination Writing Committee Orthopaedic Board Examination American Board of Orthopaedic Surgery, Chicago, IL |
| 1980-81 | President Orthopaedic Research Society, Chicago, IL |
| 1984 | Elizabeth Winston Lenier Award Kappa Delta Society (<i>Best Orthopaedic Research in U.S.</i>) American Academy of Orthopaedic Surgeons, Chicago, IL |
| 1986-89 | Chairman Research Advisory Committee Pediatric Orthopaedic Society of North America, Chicago, IL |
| 1989 | Wood Lovell Award-Co-Recipient (Orthopaedic Research) Pediatric Orthopaedic Society of North America, Rosemont, IL |
| 1990 | Member-Special Task Force on Rehabilitation National Institutes of Health, Washington, DC |
| 1991-92 | Member- Rehabilitation Study Section National Institute of Health, Washington, DC |
| 1991-92 | Chairman Committee on Research Academic Orthopaedic Society, Chicago, IL |
| 1992 | Reviewer National Science Foundation |
| 1992 | Excellence in Research Award American Orthopaedic Society for Sports Medicine San Diego, California |
| 1992-93 | Member, Council on Research American Academy of Orthopaedic Surgeons |
| 1993 | M.A. ad eundem Brown University School of Medicine, Providence, RI |
| 1994 – present | Board of Trustees Lifespan Health System Holding Company Miriam Hospital/Rhode Island Hospital Merger, Providence, RI |
| 1991-95 | Permanent Member Study Section on Orthopaedics & Musculoskeletal Disease National Institutes of Health, Musculoskeletal and Orthopaedic Study Section, Washington, DC |
| 1983-present | Oral Examination Committee American Board of Orthopaedic Surgery, Chicago, Illinois |
| 1993-98 | Designated Chair Committee on Research American Academy of Orthopaedic Surgeons, Chicago, IL |
| 1993-present | Re-Designated Chair Committee on Research Academic Orthopaedic Society, Chicago, IL |

- 1995-98 **Secretary/Treasurer**
Academic Orthopaedic Society, Chicago, IL
- 1998 **2nd President Elect**
Academic Orthopaedic Society, Chicago, IL
- 1998 **Arthur H. Huene Memorial Award**
Pediatric Orthopaedic Society of North America
Finding a Physiologic Base for Pediatric Orthopaedic Diseases
Ad Hoc Committee
American Orthopaedic Association
Representing Academic Orthopaedic Society
Co-Recipient of Aircast Award for Basic Science Research
American Orthopaedic Society for Sports Medicine
- 1999 **President**
Academic Orthopaedic Society, Chicago, IL
- 1999-present **Lifespan Finance Committee**
Board Member
- 2000 **Award for Appreciation for Outstanding Leadership as President**
- 2000 Bristol-Myers Squibb/Zimmer Selection Committee for the
Bristol-Myers Squibb/Zimmer Distinguished Achievement
Award in Orthopaedic Research
Academic Orthopaedic Society, Chicago, IL
- 2000 Nominated to Serve as Chair on the Panel Dealing with Genetic,
Developmental and Childhood Diseases
Research Committee of the American Academy of Orthopaedic
Surgeons
- 2001-present **AAMC Representative Appointment**
American Orthopaedic Association, Rosemont, IL
- 2004 America's Top Doctors, 4th Addition, Castle Connolly
Publishing
- 2005 Lifespan Investment Committee
Member
- 2005 Milton W. Hamolsky, MD
Outstanding Physician of the Year

OTHER APPOINTMENT, CONSULTANT

- 2001 **Consultant to Internal Review Committee**
Review Orthopaedic Residency Training Program
University of Connecticut School of Medicine
- 2005 **Board of Appeals Hearing**
Orthopaedic Surgery Residency Program
Union Memorial Hospital
- 2005 **First Circuit Judicial Conference**
Newport, RI
Panel Discussion
- 2005 **Consultant for the GMEC Review**
Review Orthopaedic Residency Training Program
University of Connecticut School of Medicine

MEMBERSHIP IN PROFESSIONAL SOCIETIES

| | |
|--------------|--|
| 1970-1975 | New York County Medical Society |
| 1973-1992 | Massachusetts Medical Society |
| 1975-1996 | American College of Orthopaedic Surgeons |
| 1970-present | American Medical Association |
| 1970-present | New York State Medical Society |
| 1972-present | Orthopaedic Research Society |
| 1975-present | American Academy of Orthopaedic Surgeons |
| 1978-present | Pediatric Orthopaedic Society of North America |
| 1985-present | American Orthopaedic Association |
| 1990-present | Academic Orthopaedic Society |

EDITORIAL BOARDS

| | |
|--------------|---|
| 1980-1986 | Consulting Editor (Research) Journal of Bone & Joint Surgery |
| 1986 | Guest Editor Symposium on Osteoarthritis in Clinical Orthopaedics & Related Research |
| 1986-1992 | Associate Editor Journal of Orthopaedic Research |
| 1992 | Associate Editor (Orthopaedic Section) Oxford Textbook of Surgery |
| 1992 | Associate Editor (Orthopaedic Section) Principles and Practice of Rehabilitation Medicine |
| 1992 | Associate Editor Advances in Orthopaedics, Vol. I, Vol. II and Vol. III |
| 1998 | Section Editor Skeletal Growth and Development: Clinical Issues and Basic Science Advance |
| 1984-present | Reviewer New England Journal of Medicine |
| 1984-present | Reviewer Journal of Arthritis and Rheumatism |
| 1986-present | Reviewer Clinical Orthopaedics and Related Research |
| 1986-present | Reviewer Journal of Bone & Joint Surgery |
| 1986-present | Reviewer Journal of Clinical Investigation |
| 1988-present | Reviewer Journal of Pediatric Orthopaedics |
| 1997-present | Editorial Board Journal of Pediatric Orthopaedics |

TEACHING EXPERIENCE

| | |
|-----------|--|
| 1972-1990 | CORE Clerkship in Orthopaedics (monthly) Harvard Medical School students |
| 1972-1990 | Lectures to local hospitals in conjunction with CME office Massachusetts General Hospital |

| | |
|--------------|--|
| 1972-1990 | Pediatric Post-Graduate Course lectures Harvard Medical School |
| 1972-1990 | Pediatric Orthopaedic Rounds (weekly) Massachusetts General Hospital |
| 1979-1990 | Lecture-Basic Science Committee Harvard Medical School |
| 1972-present | Lectures to New England Pediatric Society Boston, Massachusetts |
| 1990-present | Pediatric Orthopaedic Lectures (daily) Rhode Island Hospital |
| 1990-present | Supporting Structures Course (BIOMED 282) Brown Medical School/Rhode Island Hospital |
| 1990-present | Morning Lectures to Orthopaedic Residents 4 days per week Brown Medical School/Rhode Island Hospital |
| 1990-present | Afternoon Lectures as part of Pediatric Orthopaedic Syllabus Brown Medical School/Rhode Island Hospital |
| 1998-present | Course Leader-Outpatient Orthopaedics (BIOMED 400) Brown Medical School |

MAJOR RESEARCH INTERESTS

Neutral proteoglycan degrading enzymes in the epiphyseal plate.
Proteoglycan degradation and enzyme inhibitors in osteoarthritis.
Collagenase in arthritis and allografts.
Experimental models of osteoarthritis.
Growth plate transplantation.
Neuromuscular disorders in children.
Limb lengthening physiology.

GRANT SUPPORT

| | |
|-----------|---|
| 1973-1975 | Orthopaedic Research and Education Foundation <i>Collagenase in articular cartilage</i> (\$12,000) |
| 1975-1988 | Co-Investigator in NIADDKD #16262 Co-Investigator in NIAMS - #AM11382, #AM16265, #AM21896 - <i>Cartilage metabolism</i> (over \$2,000,000) |
| 1995-1997 | Orthopaedic Research and Education Foundation-Co-investigator <i>Bone response to implants covalently grafted with integrin-specific attachment peptides</i> (\$100,000) |
| 2004-2009 | VA Grant-A3772C, Rebuilding, Regenerating & Restoring Function after Limb Loss (\$7,500,000) Distraction Osteogenesis Project: \$300,000 |
| 2005-2007 | Biomimetics Corporation, PDGF Stimulation of Healing, \$83,359. |

EXTRAMURAL FUNDING

DePuy SIS in Segmental Bone Defects - \$34,641.95
PI: Moore DC. Co-Invest: JJ Crisco, MG Ehrlich. DePuy Orthopaedics, Warsaw, IN (12/1/99-3/1/01)

Intraarticular Injection of Capsaicin for Long-Term Pain Relief - \$173,318.02
PIs: Moore DC, Ehrlich MG. AlgoRx, Inc. (9/1/02-12/31/03)

VISITING PROFESSORSHIPS/NAMED LECTURES

1. *Pediatric Trauma*. Hunt Memorial Hospital, Harvard Medical School Continuing Education, Danvers, MA, May 1977.
2. *Osteomyelitis and Septic Arthritis in Infants and Children*. Hunt Memorial Hospital, Harvard Medical School Continuing Education, Danvers, MA, 1977.
3. *Pediatric Orthopaedic Update*. Mercy Hospital, Harvard Medical School Continuing Education, Long Island, NY, November 1977. Harvard Mercy Visiting Professorship
4. *What's New in Orthopaedics*. Clinical Congress of the American College of Surgeons, Chicago, Illinois, 1979.
5. *Articular Cartilage: Normal and Abnormal*. Harvard Medical School, Basic Science Committee, Boston, September, 1979.
6. *Neuromuscular Diseases in Children*. State University of New York at Stony Brook, Office of Continuing Medical Education, March, 1979. Special Pediatric Visiting Professorship
7. *Hip and Back Problems in Children*. Burbank Hospital, Harvard Medical School Continuing Education, Fitchburg MA, November, 1979.
8. *Common Foot Problems in Children*. Hunt Memorial Hospital, Danvers, MA, March, 1980.
9. *Pediatric Orthopaedic Problems*. Lectures to Pediatricians, Emerson Hospital, Concord MA, May, 1980.
10. *Skeletal Muscle and Neuromuscular Control*. Harvard Medical School, Basic Science Committee, Boston, January 1980.
11. *Pediatric Orthopaedic Problems and Pitfalls*. Harvard Medical School Continuing Education, Boston, MA, April, 1980.
12. *Common Musculoskeletal Problems*. Harvard Medical School Continuing Education, Boston, MA, April, 1980.
13. *Role of Cartilage Enzymes in Osteoarthritis*. American British Canadian Traveling Fellows, May, 1980.
14. *Degradative Enzyme Systems in Cartilage*. Gordon Research Conference, Meriden, NH, August, 1980.
15. *Lecture to the Neurofibromatosis Foundation-Massachusetts Chapter*, January, 1981.
16. *Pediatric Orthopaedics-Common Musculoskeletal Problems*. Harvard Medical School Continuing Education, Boston, MA, April, 1981.
17. *Trauma in Children*. Hunt Memorial Hospital, Danvers, MA, May, 1981.
18. *Gallium Scanning in Disc Space Infection*. Atlanta Academy of Medicine, Atlanta, GA, April, 1982. Atlanta Visiting Professorship
19. *Osteomyelitis in Children*. Addison Gilbert Hospital, Gloucester, MA, May, 1982.
20. *Osteomyelitis in Children*. Waltham Hospital, Waltham, MA, May, 1982.
21. *Foot Problems*. Hunt Memorial Hospital, Danvers, MA, 1982.
22. *Scoliosis Support Group*. Social Service Department, Massachusetts General Hospital, October, 1982.
23. *Orthopaedic Aspects of Spina Bifida in the Infant*. Massachusetts Spina Bifida Assoc., Boston, MA, November, 1982.
24. *Septic Thrombophlebitis*. New England Pediatric Society, Boston, MA, December, 1982.
25. *Osteomyelitis in Children*. Baystate Medical Center, Springfield, MA, February, 1983.
26. *Growth Plate*. Basic Science Lecture, Massachusetts General Hospital, Boston, MA, October, 1983.
27. *Trauma in Children*. Nashoba Hospital, Nashoba, MA, November, 1983.
28. *Cavus Foot*. Boston University School of Medicine, Boston, MA, November, 1983.
29. *The Problem Foot and Ankle*. Boston University School of Medicine, Boston, MA, November, 1983.
30. *Hip Problems in Children*. Massachusetts General Hospital, Radiology Grand Rounds, Boston, MA, March, 1984.
31. *Pediatric Hip Problems*. Musculoskeletal Course, Harvard Medical School Continuing Education, March, 1984.
32. *Osteoarthritis Workshop*. Paris, France, April, 1984.
33. *Pediatric Plain of Unknown Origin*. Lecture of North American Traveling Fellows, Massachusetts General Hospital, Boston, MA, May, 1984.
34. *Management of Cerebral Palsy*. Pediatric Orthopaedic Club Visiting Professor, of New York, New York, NY, May, 1984.
35. *Management of Cerebral Palsy*. Massachusetts General Hospital, Boston, MA, October, 1984.

36. *Pediatric Pain of Unknown Origin*. North American Traveling Fellows. Massachusetts General Hospital, Boston, MA, February, 1985.
37. *Management of Myelodysplasia*. Massachusetts General Hospital, Boston, MA, March, 1985.
38. *Repair of Articular Surfaces*. American Arthroscopy Association, Boston, MA, April, 1985.
39. *Osteomyelitis: Hip Problems*. Primary Care Orthopaedics, Harvard Medical School Continuing Education, Boston, MA, April, 1985.
40. *Danger Signs in Pediatric Injuries*. Emergency Care: An Extended Workshop, Massachusetts General Hospital, June, September, 1985.
41. *Sprengel's Deformity*. Northwestern University's and Children's Memorial Hospital, Chicago, IL, September, 1985. Children's Memorial Visiting Professorship
42. *Cerebral Palsy*. Northwestern University's and Children's Memorial Hospital, Chicago, IL, September, 1985.
43. *Growth Plate Physiology*. Northwestern University's and Children's Memorial Hospital, Chicago, IL, September, 1985.
44. *Biology of Growth Plate Transfers*. Grice Lecture, Harvard Combined Orthopaedic Program, Boston, MA, November, 1985.
45. Core Clinical Workshop in Pediatrics and Orthotics. Harvard Medical School, Boston, MA, December, 1985.
46. *Epiphyseal Plate Physiology*. Orthopaedic Grand Rounds, Brown University, Prov., RI, January, 1986.
47. *Pediatric Orthopaedic Emergencies*. Emergency Care: An Extended Workshop, Massachusetts General Hospital, September, 1986.
48. *Cervical Spine Injuries in Children*. American Academy of Orthopaedic Surgeons Course on Pediatric Trauma, Santa Barbara, CA, May, 1986.
49. *Osteomyelitis in Children*. American Academy of Orthopaedic Surgeons Course on Pediatric Trauma, Santa Barbara, CA, May, 1986.
50. *Biology of Joint Healing*. American Academy of Orthopaedic Surgeons Course on Pediatric Trauma, Santa Barbara, CA, May, 1986.
51. *Enzymatic Degradation in the Growth Plate*. Grice Lecture Series, Children's Hospital, Boston, MA, November, 1986.
52. *Management of Cerebral Palsy*. Shriner's Hospital, Springfield, MA, February, 1987.
53. *Growth Plate Transfers*. Austrian, Swiss and German Traveling Fellows, Massachusetts General Hospital, February, 1987.
54. *The Relationship between Epiphyseal Plate Physiology and Pediatric Orthopaedics*. Boston University School of Medicine, Boston, MA, September, 1987.\
55. *Hip Problems in Children*. Massachusetts General Hospital, Department of Pediatrics, Boston, MA, November, 1987.
56. *What's New in Pediatric Orthopaedics*. Melrose-Wakefield Hospital, November, 1987.
57. *A New View of Chondrolysis: A Combined National Clinical Study and Basic Science Analysis*. German Traveling Fellows, Massachusetts General Hospital, Boston, MA, February, 1988.
58. *Pediatric Orthopaedics and the Physis*. University of Massachusetts Medical Center, Worcester, MA, February, 1988.
59. *Diagnosis and Treatment of Congenital Intraspinial Lipoma*. Neurosurgical Grand Rounds, Brown University, Providence, RI, April, 1988.
60. *Anomalies and Injuries of the Cervical Spine in Children*. Neurosurgical Grand Rounds, Brown University, Providence, RI, April, 1988.
61. *Leg Lengthening*. Massachusetts General Hospital, Physiotherapy Department, Boston, MA, August, 1988.
62. *Growth Plate Physiology and Its Relationship to Problems in Pediatric Orthopaedics*. Tufts University, Department of Orthopaedics, Boston, MA, September, 1988.
63. *Growth Plate Physiology and Its Relationship to Problems in Pediatric Orthopaedics*. New England Baptist Hospital, Boston, MA, November, 1988.
64. *Chondrodiastasis, an Experimental Model*. Grice Lectureship Program, Children's Hospital Medical Center, Boston, MA, November, 1988.
65. *Basic Science of the Growth Plate*. Combined Harvard Orthopaedic Program Core Lecture Series, Massachusetts General Hospital, Boston, MA, January, 1989.

66. *Pediatric Orthopaedics and the Growth Plate*. Pediatric Grand Rounds, Massachusetts General Hospital, Boston, MA, January, 1989.
67. *Shoulder Problems in Children*. Brigham and Women's Hospital, Children's Hospital, Beth Israel, Boston, MA, January, 1989.
68. *Chondrolysis and Slipped Epiphysis, Clinical and Biochemical Study*. Osgood Day Presentation, Massachusetts General Hospital, Boston, MA, May, 1989.
69. *Biochemical Analysis of Septic Arthritis Treatment*. Grice Lecture Series, Children's Hospital Medical Center, Boston, MA, November, 1989.
70. *New Concepts in the Treatment of Club Foot*. President's Guest Speaker, Society of Military Orthopaedic Surgeons, San Antonio, TX, December, 1989.
71. *Growth Plate Transfers*. Seminar for Bioengineering, Brown University, Providence, RI, March, 1990.
70. *Muscular Dystrophies*. Combined Harvard Orthopaedic Residency, Massachusetts General Hospital, Boston, MA, April, 1990.
71. *Bone Dysplasia*. Combined Harvard Orthopaedic Residency, Massachusetts General Hospital, Boston, MA, April, 1990.
72. *Pediatric Trauma*. Memorial Hospital, Pawtucket, RI, May, 1990.
73. *Pediatric Orthopaedic Exam*. Newport Hospital, Newport, RI, May, 1990.
74. *Trauma in Children*. American Academy of Family Physicians, Rhode Island Chapter, Newport, RI, March, 1991.
75. *New Approach to Cerebral Palsy*. Alfred I. duPont Institute of the Nemours Foundation, Wilmington, Delaware, April, 1991. Dupont Spring Visiting Professorship
76. *Growth Plate Physiology*. Alfred I. duPont Institute of the Nemours Foundation, Wilmington, DE, April 1991.
77. *New Concepts in Club Foot Management*. President's Guest Speaker, Western Orthopaedic Association, Los Angeles, CA, April, 1991.
78. *Interleukin-1, Synovectomy and Septic Arthritis*. Pediatric Orthopaedic Society, Dallas, Texas, May, 1991.
79. Visiting Professor, Connecticut State Medical Society, Mystic, CT, May, 1991.
80. *Pediatric Orthopaedic Exam*. Brown University/Colby College Lecture in Pediatrics, June, 1991
81. *Cerebral Palsy*. Keynote Address Sponsored by the Department of Health of Puerto Rico, San Juan, PR, and June 1991.
82. *Common Sports Injuries in the Adolescent*. Brown University/Colby College Lecture in Pediatrics, June, 1991.
83. *Chronic Synovitis*. Hemophilia Center of Rhode Island. Newport, RI, March, 1992.
84. *Growth Plate Physiology*. University of Massachusetts Medical Center, Worcester, MA, May, 1992.
85. *Growth Plate Physiology*. Leslie Meyer Professorship, Shriner's Hospital, Greenville, S. Carolina, June, 1992.
86. *Cerebral Palsy*. Leslie Meyer Professorship, Shriner's Hospital, Greenville, S. Carolina, June, 1992.
87. *Pediatric Trauma*. Rheumatology Grand Rounds, Roger Williams Medical Center, Providence, RI, September, 1992.
88. *Shoulder Problems in Children*. Mt. Sinai Medical Center, New York, NY, March, 1993.
89. *Pediatric Trauma*. Emergency Medicine, Rhode Island Hospital, Providence, RI, March, 1993.
90. *Shoulder Problems in Children*. Allegheny General Hospital, Pittsburgh, PA, April, 1993.
91. *Principles of Treatment of the Spastic and Myelo Foot*. Henry Ford Hospital, Detroit, MI, May, 1994.
92. *Hip Surgery in Myelodysplasia*. Henry Ford Hospital, Detroit, MI, May, 1994.
93. *Comparison Between Different Leg Lengthening systems in an Experimental Model*. Henry Ford Hospital, Detroit, MI, May, 1994.
94. *Paralytic Hip and Paralytic Foot*. Yale University School of Medicine, New Haven, CT, May, 1994.
95. *Growth Plate Physiology in Relation to Pediatric Orthopaedics*, College of Physicians & Surgeons of Columbia University, New York, New York, September, 1994.
96. *Growth Plate Transplantation & Enzymology*, College of Physicians & Surgeons of Columbia University, New York, New York, September, 1994.
97. *Biochemistry of Osteoarthritis and Rehabilitation of the Completely Stiff Pediatric Knee*, The St. Joseph Center for Rehabilitation and Arthritis Foundation, Rhode Island Convention Center, Providence, Rhode Island, September, 1994.
98. *Orthopedics for the Pediatrician*, Pediatric Grand Rounds, Rhode Island Hospital, Providence, RI, October, 1994.
- 99.

100. *Relationship of Growth Plate Physiology to Pediatric Orthopaedics*. University of Pittsburgh Medical Center, Pittsburgh, PA, December, 1994.
101. *Orthopaedic Treatment in CP*, Neurology Grand Rounds, Rhode Island Hospital, Providence, RI, March, 1995.
102. *Growth Plate Physiology and Its Impact in Pediatric Orthopaedics*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995. St. Justine Visiting Professorship
103. *The Hip in Spina Bifida*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
104. *The Foot in Spina Bifida*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
105. *Cavus Foot*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995. 109. *The New Approach to Club Feet*. University of Massachusetts, Worcester, MA, May, 1995.
106. *The Foot in Spina Bifida*, 9th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1996.
107. *The Hip in Spina Bifida-Reduce or not?* 9th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1996.
108. *The Growth Plate as Applied to Pediatric Problems*. 9th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1996.
109. Guest speaker for 44th Annual Humanitarian Awards Dinner, National Conference for Christians and Jews, Rhode Island Convention Center, May, 1996.
110. *Is Ilizarov Lengthening the Real Thing?* Harvard Medical School, Massachusetts General Hospital, Boston, MA, May, 1996.
111. *The Physiology of Osteoarthritis*. Rhode Island Hospital, Medical Grand Rounds, October, 1996.
112. *Ilizarov vs Orthofix: An Experimental Study and Clinical Analysis*. University of Massachusetts, Worcester, MA. December, 1996.
113. *New Thoughts About the Management of Clubfeet*. 25th Annual Paediatric Orthopaedic Seminar, and Townsend Lecture, Alberta Children's Hospital, Calgary, Alberta, October, 1997.
114. *Growth Plate Physiology and Its Relationship to Paediatric Orthopaedics*. 25th Annual Paediatric Orthopaedic Seminar, Alberta Children's Hospital, Calgary, Alberta, October, 1997.
115. *Orthofix s Ilizarov-A Comparison of Healing*. 25th Annual Paediatric Orthopaedic Seminar, Alberta Children's Hospital, Calgary, Alberta, October, 1997.
116. *The Physiology of Ilizarov Lengthening*. Mt. Sinai Medical School, New York, February, 1998.
117. *The Physiologic Basis for Leg Lengthening*. Harvard Medical School Children's Hospital, Boston, MA, April, 1998.
118. *The Physiology of Leg Lengthening*, Clinique D'Orthopedie Infantile DeQuebec, Canada, October, 1998. Distinguished Visiting Professorship
119. *New Concepts in the Management of ClubFoot*, Clinique D'Orthopedie Infantile DeQuebec, Canada, October, 1998.
120. *The Philosophy of Muscle Balancing in CP*, Clinique D'Orthopedie Infantile DeQuebec, Canada, October, 1998.
121. *The Physiological Basis of Leg Lengthening*, Boston Medical Center, Grand Rounds, Boston, MA, September, 1998.
122. Howard H. Steel Conference on Pediatric Orthopaedics, Guest Panelist, The Shriners Hospital for Children, December 1998.
123. *Orthopaedic Management of Cerebral Palsy, Clubfoot, Biology of Distraction of Histogenesis*, Thirty-First Annual Louis-Colton Pediatric Orthopaedic Symposium, Phoenix, AZ, April 1999.
124. *Physiologic Leg Lengthening*, Boston Medical Center, Grand Rounds, Boston, MA, November 1999.
125. *The Role of the Physician in Health Care Policy*, Orthopaedic Grand Rounds, Brown Medical School, January 2000.
126. *Management of Cavus Foot, Orthopaedic Management of Cerebral Palsy, Sprengel's Deformity*, Ste-Justine Paediatric Orthopaedic Review Course, Montreal, Canada, April 2000.
127. *Cavus Foot/Ilizarov*, Mercy Hospital, Grand Rounds, San Diego, CA, May 2000.
128. *Club Foot*, Orthopaedic Grand Rounds, Brown Medical School, Providence, RI, September, 2000.
129. *New Concepts of Clubfeet*, Brown Medical School, Providence, RI, October, 2000.

130. Musculoskeletal Institute, Brown School of Medicine Board of Directors, Providence, RI, November 2000.
131. The Cavus Foot, Orthopaedic Grand Rounds, Brown Medical School, Providence, RI, February 2001.
132. Physiology of Distraction of Osteogenesis, Yale University School of Medicine, New Haven, CT, May 2001.
133. New Concepts in the Management of Club Foot, The University of Vermont, John W. Frymoyer Professorship, Burlington, Vermont, September 2001.
134. Physiology of Leg Lengthening, The University of Vermont, John W. Frymoyer Professorship, Burlington, Vermont, September 2001.
135. Cavus Foot Deformity, The University of Vermont, John W. Frymoyer Professorship, Burlington, Vermont, September 2001.
136. Physiology of Leg Lengthening, Orthopaedic Grand Rounds, Brown Medical School, November, 2001.
137. Physiology of Leg Lengthening, New England Medical Center, Boston, MA, December 2001.
138. Pitfalls in Office Orthopaedics for Pediatricians, American Academy of Pediatrics in Rhode Island, Prov., RI, October 2002.
139. Enhancing Spinal Fusion with rhBMP-6 Exposed Osteoprogenitor Cells, Leon Kruger Lecture, Shriners Hospital for Children, Springfield, MA, May 2003
140. Physiology of Leg Lengthening, Orthopaedic Grand Rounds, Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire, October, 2003.
141. Physiology of Leg Lengthening, Management of Cavus Foot Deformities, Is There a Role for Club Foot Surgery? University of Washington, Guest Professor-Resident Research Day, Seattle, WA, May 2004
142. The Physiology of Limb Lengthening, University of Illinois at Chicago, Visiting Professor – Senior Thesis Day, Chicago, Illinois, June 2004.
143. University of Massachusetts, Worcester Memorial Medical Center, Grand Rounds Speaker, Worcester, MA, April 2005.
144. Physiology of Leg Lengthening, Visiting Professor, University of Massachusetts, Worcester, MA. April 2005.
145. Physiology of Leg Lengthening, Visiting Professor, University of Pittsburg, Pittsburg, PA, October 2005.
146. Physiology of Leg Lengthening, Guest Lecturer, Yale University School of Medicine, New Haven CT. December 2005.

COURSE LECTURES /SYMPOSIUMS - INTERNATIONAL, NATIONAL & LOCAL

1. American Academy of Orthopaedic Surgeons, Course on Differential Diagnoses in Orthopaedics, Boston, MA., 1972
2. Resident Review Course (Orthopaedics), Augusta, Maine
3. *Biochemical Confirmation of an Experimental Osteoarthritic Model.* Heberden Society Symposium on the Aetiopathogenesis of Osteoarthritis. Welsh National School of Medicine, Cardiff, Wales. May, 1977.
4. *Biochemistry of Human Osteoarthritis.* Heberden Society Symposium on Aetiopathogenesis of Osteoarthritis. Welsh National School of Medicine, Cardiff, Wales. May, 1977.
5. *Differential Diagnosis of Foot Disorders in Children.* AAOS Course on Differential Diagnoses in Orthopaedics. Boston, MA, 1972.
6. Post-Graduate Pediatric Course, Harvard Medical School of Continuing Education, Boston, MA 1975-1985
7. Newport Orthopaedic Review Course in conjunction with Harvard Medical School Newport, Rhode Island, 1975 – present
8. *Muscular Dystrophies.* Maine Orthopaedic Review Course. Augusta, Maine. July, 1974, 1975, 1976, 1977, 1978.
9. *Orthopaedic Dangers in the Growing Child.* Post-Graduate Course. Harvard Medical School Continuing Education, 1975-1978.
10. *Hips, Legs and Feet: An Orthopaedist's Delight.* Pediatric Post-Graduate Course. Harvard Medical School of Continuing Education, May, 1980.
11. Workshop on Orthopaedics. Harvard Medical School Continuing Education, Post-Graduate Course in Primary Care Pediatrics, Boston, MA., 1978-1987

12. *Endochondral Sequences*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, July, 1980.
13. *Infection: Diagnosis and Surgical Treatment*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, July, 1980.
14. *Orthopaedics in Pediatric Practice-Treat or Refer*. Pediatric Post-Graduate Course, Harvard Medical School Continuing Education, Boston, MA, May, 1981.
15. *Bone: Endochondral Sequence*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1981.
16. *Infection: Diagnosis and Surgical Treatment*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1981.
17. *Epiphyseal Plate: Normal and Abnormal*. Harvard Medical School, Basic Science Committee, Boston, MA, October, 1981.
18. *Orthopaedic Update*. Pediatric Post-Graduate Course, Harvard Medical School Continuing Education, Boston, MA, May, 1982.
19. *Endochondral Sequence*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1982.
20. *Osteomyelitis and Septic Arthritis: Detection and Surgical Management*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1982.
21. *Muscular Disorders. Demyelinating Diseases, Vascular Dystrophies*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, 1982.
22. *Controversies in Orthopaedics*. Pediatric Post-Graduate Course, Harvard Medical School Continuing Education, Massachusetts General Hospital, Boston, MA, December, 1982.
23. *Danger Signs in Pediatric Injuries*. Emergency Care: An Extended Workshop, Massachusetts General Hospital, Boston, MA, October, 1983.
24. *Experimental Osteoarthritis*. American Academy of Orthopaedic Surgeons, Instructional Course Lecture, February, 1983.
25. *Hip Problems*. Harvard Medical School, Boston, MA, March, 1983.
26. *Infections*. Harvard Medical School, Boston, MA, March, 1983.
27. *Musculoskeletal Problems*. Harvard Medical School, Boston, MA, March, 1983.
28. *Problem Foot*. Clinic Lecture. Massachusetts General Hospital, March, 1983.
29. *Orthopaedic Update*. Pediatric Post-Graduate Course. Harvard Medical School Continuing Education, May, 1983.
30. *Back Injuries in Children*. Pediatric Post-Graduate Course, Harvard Medical School Continuing Education, Boston, MA, December, 1983.
31. Instructional Course Lectures, American Academy of Orthopaedic Surgeons, 1983-1985
32. *How to Write a Grant*. American Academy of Orthopaedic Surgeons Instructional Course Lecture, February, 1984.
33. *Scoliosis*. Pediatric Orthopaedic Nursing Workshop, Massachusetts General Hospital, Department of Nursing, Boston, MA, February, 1984.
34. *Infections in the Pediatric Age Group*. Musculoskeletal Course, Harvard Medical School Continuing Education, Boston, MA, March, 1984.
35. *Danger Signs in Pediatric Injuries*. Emergency Care: An Extended Workshop, Massachusetts General Hospital Post-Graduate Course, Boston, MA, January, May, 1984.
36. *Comprehensive Management of Myelodysplasia*. Pediatric Post-Graduate Course, Harvard Medical School Continuing Education, Boston, MA, 1984.
37. *Epiphyseal Plate*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June 1984.
38. *Patterns of Growth and Growth Disorders*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1984.
39. *Neuromuscular Disorders of Childhood*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1984.
40. *Orthopaedics-Treat or Refer*. Post-Graduate Course in Pediatrics, Harvard Medical School Continuing Education, Boston, MA, December, 1984.

41. *How to Write a Grant*. American Academy of Orthopaedic Surgeons, Instructional Course Lecture, Las Vegas, Nevada, January, 1985.
42. *Danger Signs in Pediatric Injuries*. Emergency Care: An Extended Workshop, Massachusetts General Hospital Post-graduate Course, Boston, MA, January, 1985.
43. *Scoliosis*. Pediatric Orthopaedic Nursing Workshop, Massachusetts General Hospital, Boston, MA, February, 1985.
44. *Osteomyelitis*. Pediatric Orthopaedic Nursing Workshop, Massachusetts General Hospital, Boston, MA, February, 1985.
45. *Biochemistry of Osteoarthritis*. American Academy of Orthopaedic Surgeons, Instructional Course Lecture, Chicago, April, 1985.
46. *Scoliosis*. Harvard Medical School, Pediatric Post-Graduate Course, Boston, MA, May, December, 1985.
47. *Muscular Dystrophy's*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1985.
48. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1985.
49. *Epiphyseal Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1985.
50. *Orthopaedic Management of Cerebral Palsy*. Department of Neurology, Rehabilitation Course, Massachusetts General Hospital, Boston, MA, October, 1985.
51. *Cervical Spine Anomalies*. American Society for Pediatric Neurosurgery, Annual Review Course, Boston, MA, October, 1985.
52. *Fractured Long Bones and Bone Fever in Children*. American Academy of Orthopaedic Surgeons Course on Trauma, Boston, MA, 1985.
53. *Supracondylar Fractures-Osteotomy*. American Academy of Orthopaedic Surgeons Course on Trauma, Boston, MA, 1985.
54. *Pediatric Orthopaedic Trauma*. Massachusetts General Hospital, Emergency Room Physician's Course, November, 1986.
55. *Common Hip Problems in Children*. Harvard Course: Orthopaedics for the Non-Orthopaedist, Boston, MA, April, 1987.
56. *Osteomyelitis and Septic Arthritis*. Harvard Course: Orthopaedics for the Non-Orthopaedist, Boston, MA, April, 1987.
57. *Hip and Knee Problems in Children*. Harvard Pediatric Course, Massachusetts Eye and Ear Infirmary, May, 1987.
58. *Cavus Foot*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
59. *Leg Lengthening*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
60. *Epiphyseal Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
61. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
62. *Myelodysplasia*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
63. *Muscular Dystrophy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
64. *Flat Foot Deformities*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1987.
65. *The Management of Cerebral Palsy*. Harvard Rehabilitation Course, Massachusetts Eye and Ear Infirmary, September, 1987.
66. *Principles of Pediatric Rehabilitation*. Harvard Rehabilitation Course, Massachusetts Eye and Ear Infirmary, September, 1987.
67. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.

68. *Myelodysplasia*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
69. *Muscular Dystrophy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
70. *Equalization of Leg Length Inequalities*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
71. *Cavus Foot*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
72. *Flat Foot Deformities*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
73. *Growth Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1988.
74. *Congenital Intraspinous Lipoma*. Harvard Neurosurgical Course, Boston, MA, November, 1988.
75. *Foot Disorders in Children*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
76. *Epiphyseal Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
77. *Leg Length Problems*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
78. *Muscular Dystrophies*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
79. *Myelodysplasia*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
80. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1989.
81. *Surgical Management of Rehabilitation in Children*. Harvard Rehabilitation Course, Boston, MA, September, 1989.
82. *Growth Plate Physiology*. Brown University Musculoskeletal Course, Providence, RI, March, 1990.
83. *Leg Length Discrepancies*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
84. *Growth Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
85. *Muscular Dystrophies*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
86. *Cavus Foot*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
87. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
88. *Club Foot*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
89. *Flat Feet*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
90. *Myelodysplasia*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1990.
91. *Epiphyseal Plate*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1991.
92. *Muscular Dystrophy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1991.
93. *Cerebral Palsy*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1991.
94. *Review of Growth Problems/Pediatric Foot*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1991.
95. *Principles of Pediatric Rehabilitation*. Principles and Practice of Rehabilitation Medicine, Harvard Course, Boston, MA, September, 1991.

96. *Growth Plate Physiology*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, Newport, RI, June, 1992.
97. *Principles and Treatment of the Spastic and Myelo Foot*. 6th St. Justine and Shriner's Hospital Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1993.
98. *Practical Approach to Growth Plate Disorders*. 6th St. Justine and Shriner's Hospital Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1993.
99. *Hip Surgery in Myelodysplasia*. 6th St. Justine and Shriner's Hospital Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1993.
100. *Cerebral Palsy-State of the Art*. 9th Annual Eric Denhoff Memorial Symposium, Rhode Island Hospital, Providence, RI, April 1993.
101. Panelist, 10th Annual Pediatric Orthopaedic Seminar, Shriner's Hospitals for Crippled Children, Philadelphia Unit, 1993
102. *Slipped Capital Femoral Epiphysis*. Annual Pediatric Orthopaedic Surgery Symposium, Joe DiMaggio Children's Hospital at Memorial, Hollywood, FL, January, 1994.
103. *Metabolic Problems/Arthritis*. Annual Pediatric Orthopaedic Surgery Symposium, Joe DiMaggio Children's Hospital at Memorial, Hollywood, FL, January, 1994.
104. *Bone and Joint Infections*. Annual Pediatric Orthopaedic Surgery Symposium, Joe DiMaggio Children's Hospital at Memorial, Hollywood, FL, January, 1994.
105. *The Adolescent Knee*. 7th Annual Sports Medicine Symposium, Brown University, Rhode Island Hospital, March, 1994.
106. *Osteoarthritis, Supporting Structures Pathophysiology Course*, Brown University School of Medicine, Providence, RI, March, 1994.
107. *Epiphyseal Plate*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1994.
108. *Neuromuscular Disease*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1994.
109. *Developmental Dislocation of the Hip*, 5th Annual Pediatric Symposium, Memorial Hospital, Hollywood, FL, November, 1994.
110. *Developmental/Rotational Problems of the Lower Limb & Foot*, 5th Annual Pediatric Symposium, Memorial Hospital, Hollywood, FL, November, 1994.
111. *Bone Dysplasias*, 5th Annual Pediatric Symposium, Memorial Hospital, Hollywood, FL, November, 1994.
112. *Ehrlich on Sports*, 5th Annual Pediatric Symposium, Memorial Hospital, Hollywood FL, November, 1994.
113. *The Child's Hip*, Round Table Discussion, 5th Annual Pediatric Symposium, Memorial Hospital, Hollywood, FL, November, 1994.
114. *Osteoarthritis, Supporting Structures Pathophysiology Course*, Brown University School of Medicine, Providence, RI, March, 1995.
115. *Growth Plate Physiology and Its Impact in Pediatric Orthopaedics*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
116. *The Hip in Spina Bifida*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
117. *The Foot in Spina Bifida*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
118. *Cavus Foot*, 8th Annual St. Justine Pediatric Orthopaedic Review Course, Montreal, Canada, April, 1995.
119. *Epiphyseal Plate*, Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1995.
120. *Neuromuscular Disease*, Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1995.
121. *Myelodysplasia*, Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1995.
122. *Cerebral Palsy*, Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1995.
123. *Epiphyseal Plate*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1996.
124. *Myopathies/CP*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1996.
125. *Epiphyseal Plate*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1997.
126. *Myopathies/CP*. Harvard Combined Orthopaedic Program, Newport Orthopaedic Review Course, June, 1997.
127. Orthopaedic Management of Cerebral Palsy, Clubfoot, Biology of Distraction of Histogenesis, 31st Annual Louis Colton Pediatric Orthopaedic Symposium, Phoenix, Arizona, April 1999.

128. Pitfalls in Pediatric Orthopaedic Problems, Rhode Island Academy of Family Physicians, Groton, CT, May 2003.
129. American Board of Orthopaedic Surgeons, Review for the Boards, Chicago, Ill., July 2003.
130. Ehrlich, MG, Lee M, Chen, Q, Ebersson, C, Bier A. Feasibility of Biologic Epiphysiodesis. Pediatric Orthopaedic Society of North America, May 2006.

PUBLICATIONS.

1. Ehrlich MG, Goldstein M, Heinemann HO. Hypocalcemia, Hypoparathyroidism and Osteoblastic Metastases. *Met.* 12:515, 1963
2. Ehrlich MG, Mankin HJ, Treadwell BV. Biochemical and Physiological Events During Closure of the Stapled Distal Femoral Epiphyseal Plate in Rats. *JBJS*, Mar;54(2):309-322, 1972.
3. Siffert RS, Ehrlich MG, Katz RF. Management of Congenital Dislocation of the Hip. *Clinical Orthop.* Jul-Aug;86:28-33,1972.
4. Ehrlich MG, Weiss C, Mankin HJ, Treadwell BV, Sanzone C. Histochemical, Metabolic and Ultrastructural Studies of the Maturation Zone of the Rachitic Rat Epiphyseal Plate. *JBJS.* Jun;55(4):785—794, 1973.
5. Ehrlich MG, Mankin HJ, Treadwell BV: Acid Hydrolases Activity in Osteoarthritic and Normal Human Cartilage. *JBJS.* Jul;55(5): 1068-1076, 1973.
6. Mitchell C, Ehrlich MG, Siffert RS: Comparative Bacteriology of Late and Early Orthopaedic Infection. *Clin. Orthop.* Oct;96: 277-287, 1973.
7. Ehrlich MG, Chaglassian JH: Unicameral Bone Cyst in the Scapula. *Clin Orthop.* (103):80-81, 1975.
8. Ehrlich MG, Mankin HJ, Jones H, and Grossman A, Crispen C, Ancona D: Biochemical Confirmation of an Experimental Osteoarthritis Model. *JBJS* Apr;57(3): 392-396, 1975.
9. Southmayd W, Ehrlich, MG: Idiopathic Subluxation of the Radial Head. *Clin. Orthop.* Nov-Dec;(121):271-274, 1976.
10. Ehrlich MG, Mankin HJ, Jones H, Wright R, Crispen C, Vigliani G: Collagenase and Collagenase Inhibitors in Osteoarthritic and Normal Human Cartilage. *J Clin. Invest.* Feb;59(2): 226-233, 1977.
11. Zaleske DJ, Ehrlich MG, Huddleston JI Jr: Combined Biochemical and Clinical Investigation of Chemonucleolysis Failures. *Clin. Orthop.* Jul-Aug;(126): 121-126,1977.
12. Radin EL, Ehrlich MG, Chernack R, Abernethy P, Paul IL, Rose RM: Effect of Repetitive Impulsive Loading on the Knee Joints of Rabbits. *Clin Orthop.* Mar-Apr(131):288-293, 1978.
13. Norris S, Ehrlich MG, Keim D, Guiterman H, McKusick KA: Early Diagnosis of Disc Space Infection Using Gallium 67. *J. Nucl. Med.* Apr;19(4): 384-386, 1978.
14. Ehrlich MG, Broudy AG: Compression Plate Fixation of Subtrochanteric Osteotomies in Children. *Bull. Hosp. Joint Dis.* Apr.39(1): 83-85, 1978.
15. Ehrlich MG, Houle PA, Vigliani G, Mankin HJ: Correlation Between Articular Cartilage Collagenase Activity and Osteoarthritis. *Arthritis Rheum.* Sep-Oct;21(7):761-766, 1078.
16. Ehrlich MG, Strain RE Jr. Epiphyseal Injuries About the Knee. *Orthop. Clinical North Am.* Jan;10(1):91-103, 1979.
17. Ray RL, Ehrlich MG: Lateral Hamstring Transfer and Gait Improvement in the Cerebral Palsy Patient. *JBJS.* Jul;61(5): 719-723, 1979.
18. Norris S, Ehrlich MG, McKusick K: Early Diagnosis of Disk Space Infection with 67Ga in an Experimental Model. *Clin. Orthop.* Oct.(144): 293-298, 1979.
19. Zaleske DJ, Ehrlich MG, Hall JE: Association of Glycosaminoglycan Depletion and Degradative Enzyme Activity in Scoliosis. *Clin. Orthop.* May(148): 177-181, 1980.
20. Trippel SB, Ehrlich MG, Lippiello L, Mankin HJ: Characterization of Chondrocytes from Bovine Articular Cartilage: I. Metabolic and Morphological Experimental Studies. *J Bone Joint Surg Am,* Jul;62(5):816-820,1980.
21. Zaleske DJ. Ehrlich MG, Piliero C, May JW Jr, Mankin HJ: Growth Plate Behavior in Whole Joint Replantation in the Rabbit. *JBJS.* Feb; 64(2):249-258, 1982.
22. Scheinberg RD, Ehrlich MG, Lippiello L, Mankin HJ: Degradative Enzyme Activity in Isolated Chondrocyte Populations. *Clinical Orthop.* Apr;(164):279-285, 1982.

23. Ray RL, Ehrlich MG, Mankin HJ: Isolation of Proliferating Chondrocytes from Bovine Growth Plate Cartilage by Rate-Zonal Centrifugation in a Ficoll Density Gradient. *JBJS*. Oct;64(8):1221-1224, 1982.
24. Jupiter JB, Ehrlich MG, Novelline RA, Leeds HC, Keim D: The Association of Septic Thrombophlebitis with Subperiosteal Abscesses in Children. *J Pediatric Nov*;101(5):690-695, 1982.
25. Ehrlich MG, Armstrong AL, Neuman RG, Davis MW, Mankin HJ: Patterns of Proteoglycan Degradation by a Neutral Protease from Human Growth Plate Epiphyseal Cartilage. *JBJS*. Dec;64(9):1350-1354, 1982.
26. Amadio PC, Ehrlich MG, Mankin HJ: Matrix Synthesis in High Density Cultures of Bovine Epiphyseal Plate Chondrocytes. *Connect Tissue Res*. 11(1):11-19, 1983.
27. Tebor GB, Ehrlich MG, Herrin J. Slippage of the Distal Tibial Epiphysis. *J. Pediatric Orthop*. May;3(2):211-215, 1983.
28. Clark SA, Ehrlich MG, Mankin HJ, Ryan HJ, Doppelt SH: Hematoma-Induced Febrile Response in the Pediatric Patient. *J. Pediatric Orthop*. Jul;3(3):333-340, 1983.
29. Herring JA, Ehrlich MG: Valgus Knee Deformity-Etiology and Treatment. *J Pediatric Orthop*. Sep;3(4):527-530, 1983.
30. Zaleske DJ, Ehrlich MG, Kushner D, Cleveland R, and McCarten K: Transaxial Tomography: An Alternative to Computerized Tomography in Pediatric Orthopaedic Problems. *J. Pediatric Orthop*. Nov; 3(5)616-619, 1983.
31. Ehrlich MG, Armstrong AL, Mankin HJ: Partial Purification and Characterization of a Proteoglycan-Degrading Neutral Protease from Bovine Epiphyseal Cartilage. *J. Orthop. Res*. 2(2):126-133, 1984.
32. Hahn PF, Rosenthal DI, Ehrlich MG: Case Report 286: Gas Within a Solitary Bone Cyst of the Proximal End of the Left Humerus. *Skeletal Radiol*. 12:(3)214-217, 1984.
33. Leeds HC, Ehrlich MG: Instability of the Distal Tibiofibular Syndesmosis after Bimalleolar and Trimalleolar Ankle Fracture. *JBJS*. Apr;66(4):490-503, 1984.
34. Creasman C, Zaleske DJ, Ehrlich MG: Analyzing Forearm Fractures in Children. The More Subtle Signs of Impending Problems. *Clinical Orthop*. Sept;(188):40-53, 1984.
35. Ehrlich MG, Tebor GB, Armstrong AL, Mankin HJ: Comparative Study of Neutral Proteoglycanase Activity by Growth Plate Zone. *J. Orthop. Res*. 3-3:269-276, 1985.
36. Ehrlich MG: Degradative Enzyme Systems in Osteoarthritic Cartilage. *J Orthop. Res*. 3(2):170-184, 1985.
37. Kushner DC, Cleveland RH, Ehrlich MG, Zaleske DJ, DeLuca SA, Herman TE, Webster EW. Evaluation of Anteversion of the Femur During Childhood. *Invest Radiol*. Dec;20(9):978-982, 1985.
38. Ehrlich MG and Zaleske DJ: Pediatric Orthopedic Pain of Unknown Origin. *J. Pediatric. Orthop*. Jul-Aug;6(4):460-468, 1986.
39. Kushner DC, Cleveland RH, Herman TE, Zaleske DJ, Ehrlich MG, Correia JA: Radiation Dose Reduction in the Evaluation of Scoliosis: An Application of Digital Radiography. *Radiology*. Oct;161(1):175-181, 1986.
40. Kawabe N, Ehrlich MG, Mankin HJ: In Vivo Degradation Systems of the Epiphyseal Cartilage. *Clin. Orthop*. Oct;(211):244-251, 1986.
41. Ehrlich MG, Armstrong AL, Treadwell BV, Mankin HJ: Degradative Enzyme Systems in Cartilage. *Clin. Orthop*. Dec;(213): 62-68, 1986.
42. Mercier P, Ehrlich MG, Armstrong AL, Mankin HJ. Elaboration of Neutral Proteoglycanase by Growth-Plate Tissue Cultures. *JBJS*. Jan;69(1):76-82, 1987.
43. Buckwalter JA, Ehrlich MG, Armstrong AL, Mankin HJ. Electron Microscopic Analysis of Articular Cartilage Proteoglycan Degradation by Growth Plate Enzymes. *J. Orthop. Res*. 5(1):128-132, 1987.
44. Ehrlich MG, Armstrong AL, Treadwell BV, Mankin HJ. The Role of Proteases in the Pathogenesis Osteoarthritis. *J. Rheumatol*. May;14Spec No;30-32, 1987.
45. Kawabe N, Ehrlich MG, Mankin HJ: Growth Plate Reconstruction Using Chondrocyte Allograft Transplants. *J Pediatric Orthop*. Jul-Aug;7(4):381-388, 1987.
46. Lhowe D, Ehrlich MG, Chapman PH, Zaleske DJ. Congenital Intraspinial Lipomas: Clinical Presentation and Response to Treatment. *J Pediatric Orthop*. Sep-Oct;7(5):531-537.1987.
47. Zaleske DJ, Floyd WE 3rd, Hallett J, Kushner, D, Jupiter J, Trahan C, Ehrlich MG, Mankin HJ. Epiphyseal Replacement Using Developing Tissue Donors in a Murine Model: A Combined Histologic and Radiologic Study. *J Orthop. Res*. 6(2):155-165, 1988.
48. Bell DF, Ehrlich MG, Zaleske DJ. Brace Treatment for Symptomatic Spondylolisthesis. *Clinical Orthop*. Nov;(236):192-198, 1988.

49. Ishizue KK, Ehrlich MG, Mankin HJ. Drug Induced Inhibition of Proteoglycanase Activity in the Hulth-Telhag Model. *J. Orthop. Res.* 7(6):806-811, 1989.
50. Diao E, Zaleske DJ, Avella D, Trahan C, Armstrong AL, Ehrlich MG, Mankin HJ: Kinetic and Biochemical Heterogeneity in Vertebrate Chondroepiphyseal Regions During Development. *J. Orthop. Res.* 7(4):502-510, 1989.
51. Ehrlich MG, Stefanich R, Ishizue KK, Armstrong AL, Mankin HJ. In Vitro and In Vivo Effects of Metal Chelators on Cartilage Metabolism. *J. Orthop. Res.* Jan;8(1):72-77, 1990.
52. Leibovic SJ, Ehrlich MG, Zaleske DJ: Sprengel Deformity. *JBJS.* Feb;72(2):192-197, 1990.
53. Lalanadnham T, Ehrlich MG, Zaleske DJ, Deeney VF, Mankin HJ: Viability and Metabolism of Cartilage Transplanted to Physeal Regions. *J Pediatric Orthop.* Jul-Aug;10(4): 450-458. 1990.
54. Cundy PJ, Jofe M, Zaleske DJ, Ehrlich MG, Mankin HJ. Physeal Reconstruction Using Tissue Donated from Early Postnatal Limbs in a Murine Model. *J. Orthop. Res.* May;9(3):360-366, 1991.
55. Elmer EB, Ehrlich MG, Zaleske DJ, Polsky C, Mankin HJ. Chondrodiastasis in Rabbits: A Study of the Effect of Transphyseal Bone Lengthening on Cell Division, Synthetic Function, and Microcirculation in the Growth Plate. *J. Pedi. Orthop.* Mar-Apr;12(2):181-190, 1992.
56. Boskey AL, Maresca M, Armstrong AL, Ehrlich MG. Treatment of Proteoglycan Aggregates with Physeal Enzymes Reduces Their Ability to Inhibit Hydroxyapatite Proliferation in a Gelatin Gel. *J. Orthop. Res.* May;10(3):313-319, 1992.
57. Ehrlich MG, Hulstyn M, d'Amato C. Sports Injuries in Children and the Clumsy Child. *Pediatric. Clin. North Am.* Jun; 39(3)433-449, 1992.
58. Sternlicht AL, Ehrlich MG, Armstrong AL, Zaleske DJ. Role of Pin Protrusion in the Etiology of Chondrolysis: A Surgical Model with Radiographic, Histologic, and Biochemical Analysis. *J Pediatric Orthop.* Jul-Aug;12(4)428-433. 1992.
59. Lefkoe TP, Trafton PG, Ehrlich MG, Walsh WR, Dennehy DT, Barrach HJ, Akelman E. An Experimental Model of Femoral Condylar Defect Leading to Osteoarthritis. *J. Orthop. Trauma* 7(5):458-467, 1993.
60. Wiggins ME, Fadale PD, Barrach H, Ehrlich MG, Walsh WR. Healing Characteristics of a Type I Collagenous Structure Treated with Corticosteroids. *Am J Sports Med,* Mar-Apr;22(2):279-288, 1994.
61. Hamdy RC, Ehrlich MG. Subtrochanteric Derotation Osteotomy of the Femur Using Three or Four Wires. A Technical Note. *Clinical Orthop.* May; 302:111-114, 1994.
62. Sachar K, Akelman E, Ehrlich MG. Radioulnar Synostosis. *Hand Clin.* Aug;10(3)399-404, 1994.
63. Walsh WR, Hamdy RC, Ehrlich MG. Biomechanical and Physical Properties of Lengthened Bone in a Canine Model. *Clinical Orthop.* Sept; (306) 230-238, 1994.
64. Nord KD, Dore DD, Deeney VF, Armstrong AL, Cundy PJ, Ehrlich MG. Evaluation of Treatment Modalities for Septic Arthritis with Histologic Grading and Analysis of Levels of Uronic Acid, Neutral Protease and Interleukin-1. *JBJS,* Feb;77 (2):258-265, 1995.
65. Hamdy RC, Walsh W, Olmedo M, Wallach M, Ehrlich MG: Correlation Between Ultrasound Imaging and Mechanical and Physical Properties of Lengthened Bone: An Experimental Study in a Canine Model. *J Pediatric Orthop.* Mar-Apr;15(2)206-211, 1995.
66. Lefkoe TP, Walsh WR, Anastasatos J, Ehrlich MG, Barrach HJ. Remodeling of Articular Step-Offs: Is Osteoarthritis Dependent on Defect Size? *Clinical Orthop.* May; (314):253-265, 1995.
67. Walsh WR, Wiggins ME, Fadale PD, Ehrlich MG. The Effects of a Delayed Steroid Injection on Ligament Healing Using a Rabbit Medial Collateral Ligament Model. *Biomaterials.* Aug; 16(12):905-910, 1995.
68. Siu-Caldera ML, Zou L, Ehrlich MG, Schwartz, ER, Ishizuka S, Reddy GS. Human Osteoblasts in Culture Metabolize Both 1 Alpha, 25-Dihydroxyvitamin D3 and its Precursor 25-Hydroxyvitamin D3 Into Respective Lactones. *Endrinology,* Oct.;136 (10):4195-4203, 1995.
69. Wiggins ME, Fadale PD, Ehrlich MG, Walsh WR. Effects of Local Injection of Corticosteroids of the Healing of Ligaments. A Follow-up Report. *JBJS.* Nov;77 (11):1682-1691, 1995.
70. Williams JS Jr, Hulstyn MJ, Fadale PD, Lindy PB, Ehrlich MG, Cronan J, Dorfman G. Incidence of Deep Vein Thrombosis after Arthroscopic Knee Surgery: A Prospective Study. *Arthroscopy.* Dec;11(6):701-705. 1995.
71. Cole PA, Ehrlich MG. Management of the Completely Stiff Pediatric Knee. *J Pediatric Orthop.* Jan-Feb;17(1):67-73 1997.

72. Ehrlich MG, Armstrong AL. Aggregate Degradation by Growth Plate Proteases. *Clinical Orthop.* Jan; (334):298-304, 1997.
73. Walsh WR, Sherman P, Howlett CR, Sonnabend DH, Ehrlich MG. Fracture Healing in a Rat Osteopenia Model. *Clinical Orthop.* Sept;(342):218-227, 1997.
74. DaSilva MF, Williams JS, Fadale PD, Hulstyn MJ, Ehrlich MG. Pediatric Throwing Injuries About the Elbow. *American J Orthop.* Feb;27(2):90-96,1998.
75. Barnum, MJ, Ehrlich MG, Zaleske DJ. Long-Term Patient-Oriented Outcome Study of a Modified Evans Procedure. *J Pediatric Orthop.* Nov.-Dec.;18(6):783-788, 1998.
76. DiGiovanni CW, Ehrlich MG. Treatment of Congenital Pseudarthrosis of the Fibula with Interposition Allograft. *Orthopedics.* Nov;21(11):1225-1228, 1998.
77. Lockhart GR, Longobard, YL, Ehrlich, MG: Transient Synovitis: Lack of Serologic Evidence for Acute Parvovirus B-19 or Human Herpesvirus-6 Infection. *Journal of Pediatric Orthop.*, Mar-Apr;19(2):185-187, 1999.
78. Ebersson CP, Pacicca DM, Ehrlich MG. The Role of Ketorolac in Decreasing Length of Stay and Narcotic Complications in the Postoperative Pediatric Orthopaedic Patient. *J Pediatric Orthop.*Sept.-Oct;19(5):688-692, 1999.
79. Ferris DM, Moodie GD, Dimond PM, Gioranni CW, Ehrlich MG. Valentini RF: RGD-Coated Titanium Implants Stimulate Increased Bone Formation in Vivo, *Biomaterials.* Dec;20(23-24):2323-31, 1999.
80. Babat LB, Ehrlich MG: A Paradigm for the Age-Related Treatment of Knee Dislocations in Larson's Syndrome. *J Pediatric Orthop.* May-Jun;20(3):396-401, 2000.
81. Radomisli TE, Moore DC, Barrach HJ, Keeping HS, Ehrlich MG. Weight-Bearing Alters the Expression of Collagen Types I and II, BMP, 2/4 and Osteocalcin in the Early Stages of Distraction Osteogenesis. *J Orthop. Res.* Nov;19(6):1049-56, 2001.
82. Armstrong, AL, Barrach HJ, Ehrlich, MG. Identification of the Metalloproteinase Stromelysin in the Physis. *Journal of Orthop. Res.* Mar;20(2):289-94, 2002.
83. Pacicca DM, Moore DC, Ehrlich MG. Physiologic Weight-Bearing and Consolidation of New Bone in a Rat Model of Distraction Osteogenesis. *J Pediatric Orthop.* Sept-Oct.;22(5):652-659, 2002.
84. Ebersson CP, Hogan KA, Moore DC, Ehrlich MG. Effect of Low-Intensity Ultrasound Stimulation on Consolidation of the Regenerate Zone in a Rat Model of Distraction Osteogenesis. *J Pediatric Orthop.* Jan-Feb;23(1):46-51,2003.
85. Moore DC, LeBlanc CW, Müller R, Crisco JJ 3rd, Ehrlich MG. Physiologic Weight-Bearing Increases New Vessel Formation During Distraction Osteogenesis: A micro-Tomographic Imaging Study. *J Orthop. Res.* May;21(3):489-496, 2003.
86. Landam PR, Alford JW, Ehrlich, MG. The Risks of Overly Effective Postoperative Epidural Analgesia, *Am J Orthop.* Jul;32(7):353-5, 2003.
87. Valdes M, Palumbo M, Appel J, McAllister S, Ehrlich MG. Posterolateral Intertransverse Lumbar Arthrodesis in the New Zealand White Rabbit Model: II. Operative Technique. *The Spine Journal* Aug;pp.293-299, 2003.
87. Jofe, MH, Lehman, WB, Ehrlich MG: Chondrolysis Following Slipped Capital Femoral Epiphysis, *Journal of Pediatric Orthopaedics.* Jan;13(1):29-31, 2004.
88. Moore DC, Pedrozzo HA, Crisco JJ, Ehrlich MG: Preformed Grafts of Porcine Small Intestine Submucosa (SIS) for Bridging Segmental Bone Defects. *J. Biomed Mater Res.* May 1;69A(2):259-66, 2004.
89. Belanger MJ, Moore DC, Fadale PD, Hulstyn MJ, Crisco JJ, Ehrlich MG: Knee Laxity Does Not Vary With the Menstrual Cycle, Before or After Exercise. *American Journal of Sports Medicine,* Jul.Aug;32,(5):1150-1157. 2004. Winner of the 1999 Aircast Award.
89. Posterolateral Spine Fusion with rhBMP-6 Exposed Osteoprogenitor Cells, ORS, Submitted
90. Aaron R, Herr H, Ciombor D, Hochberg L, Donoghue J, Briant C, Morgan J, Ehrlich MG. Horizons in Prosthetic Development for the Restoration of Limb Function. *Journal of the American Academy of Orthopaedic Surgeons, Volume 14, (Supplement) 2006.*

IN PRESS

91. Crawford, DC, Frenzon S, Ehrlich MG: Arthroeresis as an Adjunct Procedure for Pathologic Planovalgus, *British Journal of Bone and Joint Surgery*. In Press.
92. Alford JW, Bradley MP, Moore D, Crisco JJ, Fadale PD, Ehrlich MG. Resorbable Fillers Reduce Stress Risers from Empty Screw Holes, *J Trauma*, In Press. 2006

INVITED ARTICLES

92. Schwartz ER, Ehrlich MG. Recent Developments in Biochemistry with Relevance to Orthopaedic Surgery. *Current Opinion in Orthopaedics*, 2:684-690, 1992.
93. Ehrlich MG. Editorial Comment on Osteoarthritis Symposium. *Clin. Orthop. Rel. Res.* 213:2-3, 1986.
94. Ehrlich MG. Consultant Orthopaedist in Distal Tibial Fracture in a Child. *Orthopaedic Consultation*. 7: 10, 1986.
95. Ehrlich MG. What's New in Orthopaedic Surgery, *Ortho. Rev.* 9(8):23-25, August, 1980.
96. Ehrlich MG. Foot Disorders in Infants and Children: A Monograph. *Current Problems in Pediatrics*. 4:7, 1974.
97. Ehrlich MG, Putschar WGJ. Recurrent Swelling of the Knee in an Eighteen Year Old Girl. *New Eng. J. Med.* 26:1414, 1973.

ABSTRACTS - PRESENTED AT NATIONAL MEETINGS

1. Ehrlich MG, Mankin HJ, and Treadwell BV: Metabolic Changes in Rachitic Maturation Zone. *JBJS*. 54A:1126, 1972.
2. Ehrlich MG, Mankin HJ, and Treadwell BV: Acid Hydrolases in Arthritic Cartilage. *JBJS*. 54A:1128, 1972.
3. Ehrlich MG, Mankin HJ, Treadwell BV and Jones H: Uridine Diphosphate Stimulation of Protein Polysaccharide Synthesis. *JBJS*. 56A:129, 1974.
4. Ehrlich MG, Lippiello L, Mankin HJ, Higgins D, Knox O. Prolonged Stimulation of Proteoglycan Synthesis in Cartilage by Uridine Diphosphate. *Arth. Rheum.* 18:396, 1975.
5. Ehrlich MG, Lippiello L, Mankin HJ, Higgins D, and Ferguson K: Stimulation of Proteoglycan Synthesis with Uridine Diphosphate. Studies on the Mechanisms of Action. *Trans. Ortho. Res. Soc.*, 1: 227, 1976.
6. Zaleske DJ, Ehrlich MG, and Huddleston J: Combined Biochemical and Clinical Investigation of Chymopapain Failures. *Trans. Orth. Res. Soc.*, 1: 140, 1976
7. Ehrlich MG, Lippiello L, Mankin HJ, Higgins D, and Knox O: Prolonged Stimulation of Proteoglycan Synthesis in Cartilage by Uridine Diphosphate. *Trans. Orth. Res. Soc.*, 1: 216, 1976.
8. Ehrlich MG, Vigliani G, and Mankin HJ: Correlation of Trypsin-activated Articular Cartilage Collagenase Activity with the Severity of Osteoarthritis. *Trans. Orth. Res. Soc.*, 2: 6, 1977.
9. Ehrlich MG, Mankin HJ, Bilotta R, Cantley K, and Schiller A.: Degradative Enzyme Systems in Chondrosarcoma. *Trans. Orth. Res. Soc.*, 2: 147, 1977.
10. Ehrlich MG, Mankin HJ, Vigliani G, Wright R, and Crispin C: Pattern of Proteoglycan Subunit Breakdown by Human Degradative Enzymes at Neutral Ph. *Trans. Orth. Res. Soc.*, 2: 7, 1977.
11. Radin E, Ehrlich MG, Chernack R, Paul I, Rose R: Effect of Repetitive Impulsive Loading on the Metabolism of Rabbit Articular Cartilage and its Relationship to Bone Stiffness. *Trans. Ortho. Res. Soc.*, 2: 74, 1977.
12. Trippel S, Ehrlich MG, Mankin HJ, Lippiello L: Metabolic Activity of Isolated Chondrocyte Populations. *Trans. Orth. Res. Soc.*, 3: 76, 1978.
13. Scheinberg R, Ehrlich MG, Mankin HJ, Lippiello L: Lysosomal Enzyme Activity in Isolated Chondrocyte Population. *Trans. Orth. Res. Soc.*, 3: 77, 1978.
14. Norris S, Ehrlich MG, and McKusick K: Gallium and TC⁹⁹ Diphosphonate Scanning in an Experimental Model of Disc Space Infection. *Trans. Orth. Res. Soc.*, 3: 157, 1978.
15. Ehrlich MG, Mankin HJ, Bilotta, R.: Degradative Enzyme Systems in Chondrosarcoma, *Trans. Orth. Res. Soc.*, 1978.
16. Ehrlich MG, Davis M, Mankin HJ: Human Growth Plate Neutral Proteoglycanase and their Pattern of Breakdown. *Trans. Orth. Res. Soc.*, 4: 139, 1979.

17. Ray R, Ehrlich MG, Mankin HJ: Separation of Growth Plate Chondrocytes by Density Gradient Techniques. *Trans. Orth. Res. Soc.*, 4: 105, 1979.
18. Zaleske DJ, Ehrlich MG, Hall J: Glycosaminoglycan Depletion and Degradative Enzyme Activity in Scoliosis. *Trans. Orth. Res. Soc.*, 4: 49, 1979.
19. Lahey P, Ehrlich MG, Treadwell BV, Mankin HJ: Neutral Proteoglycanase Activity versus Severity of Osteoarthritis. *Trans. Orth. Res. Soc.*, 4: 46, 1979.
20. Ehrlich MG, Neuman RG, Davis MW, and Mankin HJ: Human Epiphyseal Plate Proteoglycanases and Degradation Patterns. *Trans. Orth. Res. Soc.*, 4: 139, 1979.
21. Band RL, Ehrlich MG, Johnson M, Mankin HJ: The Effect of Gradual Physiologic Increases of Pressure on Articular Cartilage in vivo. *Trans. Orth. Res. Soc.*, 5: 2, 1980.
22. Zaleske DJ, Ehrlich MG, Piliero C, May J: A Rabbit Model for Free Vascularized Growth Plate Transplantation. *Trans. Orth. Res. Soc.*, 5: 143, 1980.
23. Amadio P, Ehrlich MG, and Mankin HJ: Matrix Synthesis in High Density Cultures of Bovine Epiphyseal Plate Chondrocytes. *Trans. Orth. Res. Soc.*, 6: 69, 1981.
24. Amadio P, Ehrlich MG, Mankin HJ, Pomerantz G: Matrix Synthesis and Degradation as a Result of In Vivo Pressure Changes. *Trans. Orth. Res. Soc.*, 6: 47, 1981.
25. Ehrlich MG, Armstrong, A, Mankin HJ: Isolation and Partial Purification and Characterization of Growth Plate Neutral Proteoglycanase. *Trans. Orth. Res. Soc.*, 6: 109, 1981.
26. Eriksson AI, Ehrlich MG, Johnson K, Mankin HJ: Collagenase Activities in Malignant Neoplasms: A Preliminary Report. *Trans. Orth. Res. Soc.*, 6: 29, 1981.
27. Tebor GB, Ehrlich MG, Armstrong A, Mankin HJ: A Comparative Study of Neutral Proteoglycanase Activity by Growth Plate Zone. *Trans. Orth. Res. Soc.* 7: 1982.
28. Ehrlich MG, Lorenz J, Tomford W, and Mankin HJ: Collagenase Activity in Banked Bone. *Trans. Ortho. Res. Soc.*, 8: 1983.
29. Ehrlich MG, Stefanich R, Armstrong A, Mankin HJ: The Role of Metal Chelators in the Management of Arthritis. *Trans. Orth. Res. Soc.*, 8: 1983.
30. Lev-El A, Ehrlich MG, Connor JF, Mankin HJ: Chondrocyte Differentiation by Intracellular Proteoglycan Determination. *Trans. Orth. Res. Soc.*, 8: 1983.
31. Kawabe N, Ehrlich MG, and Mankin HJ: In Vivo Degradation Systems of the Epiphyseal Plate. *Trans. Orth. Res. Soc.*, 9: 1984.
32. Kawabe N, Ehrlich MG: Growth Plate Reconstruction using Chondrocyte Allograft Transplants. *Trans. Orth. Res. Soc.*, 9: 1984.
33. Ishizue K, Ehrlich MG, and Mankin HJ: The In Vivo Effects of EDTA and Vitamin E on Proteoglycan Degradation. *Trans. Orth. Res. Soc.*, 9: 1984.
34. Ishizue K, Ehrlich MG, and Mankin HJ: Drug Induced Inhibition of Proteoglycanase Activity in the Hulth Telhag Model. *Trans. Orth. Res. Soc.*, 9: 1984.
35. Mercier P, Ehrlich MG, Armstrong AA, and Mankin HJ: Is Degradative Enzyme Production an Environmental Response? *Ortho. Trans.* 9:242, 1985.
36. Buckwalter JA, Ehrlich MG, Armstrong A, Mankin HJ: Electron Microscopic Analysis of Proteoglycan Degradation by Growth Plate Enzymes. *Orth. Trans.* 9:291, 1985.
37. Mercier P, Ehrlich MG, Armstrong AA, Mankin HJ: Is Degradative Enzyme Production an Environmental Response? *Trans. Orth. Res. Soc.*, 10: 65, 1985.
38. Buckwalter JA, Ehrlich MG, Armstrong A, Mankin HJ: Electron Microscopic Analysis of Proteoglycan Degradation by Growth Plate Enzymes. *Trans. Orth. Res. Soc.*, 11: 1985.
39. Lalandandham T and Ehrlich MG: The Biology of Success and Failure of Growth Plate Transfers. *Trans. Orth. Res. Soc.*, 11: 157, 1986.
40. Ehrlich MG, Armstrong AA, Mankin HJ: Disaggregation and Reaggregation in the Growth Plate and the Role of Growth Plate Proteases. *Trans. Orth. Res. Soc.*, 11:154, 1986.
41. Floyd WE, Zaleske DJ, Jupiter JB, Trahan CA, Ehrlich MG, and Mankin HJ: Successful Replacement of Absent Limb Segments Utilizing Primitive Tissue Donors. *Trans. Orth. Res. Soc.*, 11:173, 1986.
42. Floyd WE, Zaleske DJ, Jupiter JB, Trahan CA, Ehrlich MG, Mankin HJ: Successful Replacement of Absent Limb Segments Utilizing Primitive Tissue Donors. *Orthop. Trans.* 10:375, 1986.

43. Awbrey BJ, Matsuno T, Ehrlich MG, Treadwell BV, Mankin HJ: Intracellular Proteoglycan Content of Normal and Osteoarthritic Human Chondrocytes: Use of a Flow Cytometric Probe. *Trans. Ortho. Res. Soc.*, 12: 302, 1987.
44. Riley PO, Hodge WA, Gould AL, Ehrlich MG, Harris WH, Mann RW: The Influence of Posture on Balance in Cerebral Palsied Children. *Trans. Orth. Res. Soc.*, 12:502, 1987.
45. Wolohan M, Zaleske DJ, Ehrlich MG, Mankin HJ: Epiphyseal Reconstruction Using Tissue Donors from Developing Limbs. *Trans. Orth. Res. Soc.*, 13:293, 1988.
46. Marsh JS, Ehrlich MG, Kushner DS, Zaleske DJ: Quantitative Assessment of the Effects of Weight Bearing on the Bone Density in the Immature Skeleton. *Trans. Orth. Res. Soc.*, 13:373, 1988.
47. Ehrlich MG, Zaleske DJ, Armstrong AA, Mankin HJ: Discovery and Characterization of Physéal Stromelysin. *Trans. Orth. Res. Soc.*, 14:111, 1989.
48. Elmer E, Ehrlich MG, Zaleske DJ, Polsky C, Mankin HJ: The Mechanism for Growth Plate Hypertrophy in Chondrodiastasis. Microvascular, Autoradiographic and Histologic Studies. *Trans. Orth. Res. Soc.*, 14:169, 1989.
49. Heddon D, Ehrlich MG, Zaleske DJ, Mankin HJ: The Effect of Varying Oxygen Tension on Physéal Maturation and Protease Production. *Trans. Orth. Res. Soc.*, 14:135, 1989.
50. Zaleske DJ, Ehrlich MG, Mankin HJ: Identification of Cell Populations from Different Chondroepiphyses. *Trans. Orth. Res. Soc.* 14:1989.
51. Heddon D, Treadwell BV, Ehrlich MG, Mankin HJ: The Effects of IL-1 on the Growth Plate Chondrocyte. *Trans. Orth. Res. Soc.*, 14:519, 1989.
52. Boskey MG, Maresca M, Armstrong AL, Ehrlich MG: Effects of Neutral Metalloprotease Treated Proteoglycans on Hydroxyapatite Formation in a Collagen Gel. *Proceedings of Israeli Meeting on Mechanisms of Bone Formation*, 1989.
53. Boskey AL, Maresca M, Armstrong A, Mankin HJ, Ehrlich MG: Proteoglycans Treated with Physéal Proteases are Less Effective Inhibitors of Mineralization than Intact Proteoglycans. *Trans Orth. Res. Soc.*, 15(2):301, 1990.
54. Deeney VF, Ehrlich MG, Dore DD, Zaleske DJ, Nord K, Cundy P, Rowan F, Armstrong AL, Mankin HJ: Biochemical and Histologic Analysis of Various Treatment Regimens for Septic Arthritis. *Trans. Orth. Res. Soc.*, 15(1):294, 1990.
55. Cundy PJ, Jofe M, Zaleske DJ, Ehrlich MG, Mankin HJ: Physéal Reconstruction Using Tissue Donated from Early Postnatal Limbs in a Murine Model. *Trans. Orth. Res. Soc.*, 1990.
56. Benaroya A, Ganey T, Mesgarzadeh M, Barrach H-J, Ogden J, Ehrlich MG: Early and Late Effects of Cryosurgery on Growth Cartilage and Subchondral Bone. *Society for Cryobiology*, Ithaca, NY, 1992.
57. Walsh WR, Lefkoe TP, Armstrong AL, Palafox A, Ehrlich MG: The Role of Streaming Potentials in Osteoarthritis. *Trans. Orth. Res. Soc.*, 17:236, 1992.
58. Lefkoe TP, Trafton PG, Dennehy DT, Ehrlich MG, Akelman E: A New Model of Arthritis Step-off for the Study of Post Traumatic Arthritis. *Trans Orth. Res. Soc.*, 17:207, 1992.
59. Zou L, Gruppuso PA, Froehlich J, Limbird R, Ehrlich MG, Schwartz ER: Cell Division Induced by Platelet Derived Growth Factor is Preceded by Tyrosine Phosphatase Activation in Human Osteoblasts. *Arthritis & Rheumatism*. 35(5):R46, 1992.
60. Wiggins ME, Fadale PD, Barrach H, Saskaen H, Judge DC, Ehrlich MG, Walsh W: Biomechanical Properties of an Injured Ligament Treated with Corticosteroids. *J. Biomechanics* 26(3):286, 1993.
61. Wiggins MJ, Fadale P, Barrach HJ, Judge D, Ehrlich MG, Walsh WR: Long Term Effects of Corticosteroid Treatment on a Healing Rabbit Medial Collateral Ligament. *Trans. Orth. Res. Soc.*, 18:59, 1993.
62. Olmedo ML, Weiss APC, Walsh W, Ehrlich MG: In Vitro Growth Potential of Human Bone Derived Cells on PTFE Grafts. *Trans. Materials Res. Soc.*, 1993.
63. Russell M, Zou L, Keeping H, Ehrlich MG, Walsh WR: Human Osteoblast Expression of Osteonectin on Different Charged Substrata. *Trans. Materials Res. Soc.*, 331:133-139, 1993.
64. Olmedo ML, Weiss APC, Walsh WR, Zou L, Ehrlich MG: The In Vitro Growth Potential of Human Bone Derived Cells on Polytetrafluoroethylene Grafts. *Trans. Materials Res. Soc.*, San Francisco, CA, 1993.
65. Hamdy RC, Walsh WR, Wallach MT, Barrach HJ, Ehrlich MG: Ultrasound Imaging and Mechanical Properties of lengthened Bone. AOA, Coronado, CA, 1993.
66. Zou L, Walsh WR, Keeping H, Howlett CR, Steele J, McFarland C, Russell M, Ehrlich MG: Osteoblast Orthopaedic Biomaterial Response. *Materials Res. Soc.*, 331:127-131, 1993.

67. Walsh WR, Asprinio D, Sherman P, Staebler M, Trafton PG, Ehrlich MG: Tensile Properties of a Healing Rat Fresh Fracture. *Soc. of Biomaterials*, 1993.
68. Williams JS, Hulstyn MJ, Lindy P, Fadale PD, Ehrlich MG: DVT after Arthroscopic and ACL Reconstructive Surgery: A Prospective Study. *AAOS*, 1994.
69. Walsh WR, Howlett CR, Russell M, Keeping HS, Ehrlich MG, Zou L, Kim HD: Osteoblast Morphology during Initial Attachment to Metal and Plastic Surfaces. *Australian Soc for Biomaterials*, 4:88-90, 1994.
70. Keeping HS, Carreiro MP, Halpet GK, Stein BS, Russell M, Ehrlich MG: Differential Expression of Bone Morphogenetic Proteins in Metastatic Prostate Cancer Cells. *Am Assoc of Cancer Research* (Abstract 1625), 1994.
71. Valentini RF, Zou L, Barino G, Ehrlich MG: Enhanced Osteoblast Attachment to Amine-and RGD-Immobilized Fluoropolymer Surface. *Trans. Orth. Res. Soc.*, 1995.
72. Armstrong A, Ehrlich MG: Physeal Secretion of an Active Stromelysin. *Trans. Orth. Res. Soc.*, 1995.
73. Keeping HS, Chang G, Angert L, Chang E, Ehrlich MG, Glantz L, Narayan P, Dahiya R: Interleukin Modulation of Prosthetic Bone Morphogenetic Protein Expression in Primary Tumors and Bone Metastases. *Trans. Orth. Res. Soc.*, 1995.
74. Zou L, Siu-Caldera ML, Reddy G, Russell M, Ehrlich MG: Involvement of 24,25(OH)₂D₃ on 1,25(OH)₂D₃ Metabolism and Osteocalcin Synthesis in Cultured Human Osteoblasts. *Trans. Orth. Res. Soc.*, 1995.
75. Kim HD, Ehrlich MG, Valentini RF: Effects of Sequential and Concurrent Delivery of PDGF and TGFβ on Human Osteoblasts *In-Vitro*. *Trans. Orth. Res. Soc.*, 1995.
76. Walsh WR, Gubelsu N, Ehrlich MG: Scanning Electron Microscope Analysis of the Failure Surface of Cortical Bone Following Ion Treatments. *Trans. Orth. Res. Soc.*, 1995.
77. Siu-Caldera ML, Zou L, Ehrlich MG, Reddy GS: Effect of 24(R),25(OH)₂D₃ on 1,25(OH)₂D₃ *Mineral Research*, 1995.
78. Zou L, Siu-Caldera ML, Keeping H, Reddy GS, Ehrlich MG: Expression and Regulation of 24-Hydroxylase Messenger Ribonucleic Acid by 24(R),25-DI-Hydroxyvitamin D₃ in Cultured Human Osteoblasts. *American Society for Bone and Mineral Research*, 1995.
79. Hamdy CR, Walsh WR, Ehrlich MG, Mortimer ES: Comparison between Ilizarov and Orthofix Lengthening: An experimental model. *Trans. Orth. Res. Soc.*, 20:568, 1995.
80. Mortimer ES, Ehrlich MG, Barrach HJ, Keeping H, Labrador DA: Localization of Osteocalcin and Bone Morphogenetic Proteins 2, 4, and 6 in the Regenerate Region of a Canine Limb Lengthening Model. *2nd Combined Meeting of the Orthopaedic Research Societies*, San Diego, CA, 1995.
81. Zou L, Siu-Calder ML, Keeping H, Reddy GS: Regulation of 24-Hydroxylase Messenger Ribonucleic Acid by Vitamin D₃ Metabolites in Cultured Human Osteoblasts. *Trans. Orth. Res. Soc.*, 1996. (Abstract 342)
82. Keeping HS, Angert L, Armstrong AL, Ehrlich MG: Differential Expression of Stromelysin-1 in Bovine Physeal Cartilage. *Trans. Orth. Res. Soc.*, 1996. (Abstract 325)
83. Griggs, S, Barrach H, Fadale P, Sargent D, Saracen M, Ehrlich MG: Monoclonal Antibody Elisa Quantification of Synovial Fluid Collagen Peptides: Correlation with Arthroscopic Findings in the Injured and Degenerative Knee. *American Orthopaedic Soc. for Sports Medicine*, 1996.
84. Valentini RF, Ferris D, DiGiovanni C, Dimont P, Shering M, Moodie G, Crisco JJ, Labrador D, Ehrlich MG: Increased Bone Formation and Pullout Strength with RGD-Coated vs. Uncoated Implants. *The 22nd Annual Society for Biomaterials*, May, 1996.
85. Keeping HS, Lo S, Akerley WL, Drozdoff V, Dinh Q, Zou L, Ehrlich MG: Differential Uptake and Retention of Strontium-89 in Human Osteoblast and Bone Metastatic Prostate Cancer Cell Lines. *7th Prouts Neck Meeting on Prostate Cancer: Mechanisms of Bone Metastasis*, 1996. (Abstract 15).
86. Ehrlich MG, Armstrong AL: Evidence for Stromelysin-Induced Cleavage of Growth Plate Aggrecan. *Trans. Orth. Res. Soc.*, 1997.
87. DiGiovanni CW, Dimond PM, Limbird RS, Ehrlich MG: RGD-Coated Implants Show Enhanced Bone Formation in Vivo. *Trans. Orth. Res. Soc.*, 1997.
88. Keeping HS, Medina MM, Ehrlich MG, Loop S, Ostenson R: Alpha-5 Integrin Expression is Increased in Prostatic Cell Lines Derived from Bone Metastases. *Trans Ortho. Res. Soc.*, 1997. (Abstract 555)
89. Radomisli TE, Ehrlich MG, Moore DC, Keeping HS, Barrach HJ, Medince MM, Labrador DP: Earliest Molecular Biologic and Immunohistochemical Manifestations of Bone Formation Under the Effect of Weight-Bearing in Distraction Osteogenesis: A Preliminary Report. *Trans. Orth. Res. Soc.*, 1997.

90. Valentini RF, Zou LZ, Keeping H, Sherline M, Moodie G, Ehrlich MG: Increased and Differential Gene Expression of Cultured Osteoblasts to RGD- and REG-Containing Peptides. *Trans. Orth. Res. Soc.*, 1997. (Abstract 582)
91. Lockhart G, Longobardi Y, Ehrlich MG: A Virological Investigation of Transient Synovitis. *SAEM Annual Meeting, APA/SPR*, Washington, DC, May 1997.
92. Zou L, Siu-Caldera ML, Reddy GS, Keeping HS, Ehrlich MG: Differential Effects of 1,25(OH)₂D₃ and 1,25(OH)₂epid-D₃ on mRNA Expression of Osteonectin and 24-Hydroxylase in Cultured Human Osteoblasts. *Tenth Workshop on Vitamin D-Strasbourg*, France. May, 1997.
93. Belanger MJ, McGovern RD, Fadale PD, Hulstyn MJ, Crisco JJ, Natarajan RJ, Moore DC, Ehrlich MG: Effects of Menstrual Cycle and Exercise on Knee Laxity in Female Athletes. *Trans. Orth. Res. Soc.*, 1998. (Abstract 1030)
94. Keeping HS, Lo S, Zou L, Ehrlich MG, Akerley WL: Prolonged Strontium-89 Retention by Human Osteoblasts is Associated with Both Intracellular and Extracellular Matrix Accumulation. *Trans. Orth. Res. Soc.*, 1998. (Abstract 523)
95. Zou L, Moore GD, Sherling MG, Keeping HS, Ehrlich MG, Valentini RF: Immobilized RGD Peptide Accelerates Bone Matrix Protein and Modulates Integrin Gene Expression of Cultured Primary Rat Osteoblasts. *Trans. Orth. Res. Soc.* 1998. (Abstract 18)
96. Ebersson CP, Pacicca DM, Reinert SE, Ehrlich MG: The Role of Ketorolac Tromethamine in Decreasing Length of Stay and Limiting Narcotic Complications in the Post-Operative Pediatric Orthopaedic Patient. *POSNA*, 1998.
97. Barrach HJ, Ehrlich, MG, Sargent DA, Chichester CO, Labrador D, Griggs S, Gatel J: Quantification of Collagen Type II Peptides in Synovial Fluid from Rabbits with Induced Osteoarthritis. *Trans. Ortho. Res. Soc.*, 23:874, 1998.
98. Belanger MJ, McGovern RD, Fadale PD, Hulstyn MJ, Crisco JJ, Natarajan RJ, Moore DC, Ehrlich MG; Effects of Menstrual Cycle and Exercise on Knee Laxity in Female Athletes, Orthopaedic Research Society, New Orleans, Louisiana, 1998
99. Pacicca DM, Moore DC, McGovern RD, Crisco JJ, Ehrlich MG: The Effect of Weight-Bearing on Consolidation of the Regenerate Zone in a Rat Model of Distraction Osteogenesis. Annual Meeting, Pediatric Orthopaedic Society of North America, Cleveland, OH, 1998
100. Pacicca DM, Moore DC, McGovern RD, Crisco JJ, Ehrlich MG. The Effect of Weight-Bearing on Consolidation of the Regenerate Zone in a Rat Model of Distraction Osteogenesis. 45th Annual Meeting, Orthopaedic Research Society, Anaheim, CA, 1999
101. MJ Belanger, RD McGovern, PD Fadale, MJ Hulstyn, JJ Crisco, DC Moore, MG Ehrlich. Menstrual Cycle, Exercise, and Knee Laxity. Annual Meeting of the American Orthopaedic Society for Sports Medicine, Traverse City, Michigan, June 1999
102. Moore DC, Crisco JJ, Ehrlich MG. Bridging Segmental Defects in Long Bones with Intramedullary Tubes and Periosteal Sleeves Made from Small Intestine Submucosa. 3rd SIS Symposium, Orlando, FL, November, 2000
103. Moore, DC, Leblanc CW, Muller, R, Crisco JJ, Ehrlich MG: The Effect of Weight-Bearing on the Vasculature in Distraction Osteogenesis as Assessed by Micro-Tomographic Imaging, Orthopaedic Research Society, 2000
104. Belanger MJ., Moore DC, McAllister SC, Ehrlich MG: The Mechanical Properties of RAT ACL are Independent of Serum Estrogen Level, Orthopaedic Research Society, 2000
105. Ebersson CP, Hogan KA, Moore DC, Ehrlich MG; The Effect of Low Intensity Ultrasound on Consolidation of Regenerate Bone in a Rat Model of Distraction Osteogenesis, 46th Annual Meeting of the Orthopaedic Research Society, Orlando, FL, March 2000.
106. Babat LB, Keeping H, KungJ, Roybal J, Palumbo M, Ehrlich MG: Differentiation of Rabbit Bone Marrow Stromal Cells on a BMP-6 Containing Osteoinductive Extracellular Matrix Derived from C3H10T1/2Cells, Orthopaedic Research Society, 2000
107. Moore DC, LeBlanc, CW., Muller, R., Crisco, JJ, Ehrlich, MG.: Weight bearing Increases New Vessel Formation in Distraction Osteogenesis, Orthopaedic Research Society, 2000
108. Moore DC, Ehrlich MG. The Effect of Weight-Bearing on Healing in a Rat Model of Distraction Osteogenesis 47th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February, 2001

109. Moore DC, LeBlanc, CW., Muller, R., Crisco, JJ, Ehrlich, MG.: Weight bearing Increases New Vessel Formation in Distraction Osteogenesis, Pediatric Orthopaedic Society of North America, 2001
110. Crawford, DC, Frenzen S, Ehrlich MG. Arthroeresis as an Adjunct Procedure for Pathologic Planovalgus, Pediatric Orthopaedic Society of North America, 2001.
111. Moore DC, Pedrozo HA, Crisco JJ, Ehrlich MG. Evaluation of Porcine Small Intestine Submucosa (SIS) for Treating Segmental Bone Defects, 48th Annual Meeting of the Orthopaedic Research Society, Dallas TX, February, 2002.
112. Valdes M, Robertson A, Keeping H, Palumbo M, Lucas, P, Ehrlich MG: BMP-6 Exposed Osteoprogenitor Cells Promote Posterolateral Intertransverse Spinal Fusion in the New Zealand White Rabbit. Annual Meeting of the Orthopaedic Research Society, February , Dallas Texas, 2002
113. Moore DC, Pedrozo HA, Crisco JJ, Ehrlich MG. Porcine Small Intestine Submucosa (SIS) Does Not Heal Segmental Bone Defects. 28th Annual Meeting of the Society for Biomaterials, Tampa, FL. April 2002.
114. Valdes M, Palumbo M, Robertson A, Lucas P, Ehrlich MG. Posterolateral Intertransverse Lumbar Fusion in the New Zealand White Rabbit Model. 10th Annual Lifespan Research Celebration, Providence, RI, November 2002.
115. Valdes M, Keeping H, Robertson A, Appel AJ, Moore DC, Palumbo M, Lucas P, Ehrlich MG. Enhancing Posterolateral Spinal Fusion with rhBMP-6 Exposed Osteoprogenitor Cells. 10th Annual Lifespan Research Celebration, Providence, RI. November 2002.
116. Schiller JR, Moore DC, Sheikh S, Keeping H, Ehrlich MG. Increased Distraction Rate Decreases Expression of Angiogenic and Osteogenic Growth Factors in Distraction Osteogenesis. Annual Meeting of the Pediatric Orthopaedic Society of North America. Amelia Island, FL, May 2003.
117. MG Ehrlich, M Valdes, H Keeping, M Palumbo. Enhancing Spinal Fusion with rhBMP-6 Exposed Osteoprogenitor Cells. Annual Meeting of the Pediatric Orthopaedic Society of North America. Amelia Island, FL, May 2003
118. Valdes M, Keeping H, Robertson A, Appel AJ, Moore DC, Palumbo M, Lucas P, Ehrlich MG. Enhancing Posterolateral Spinal Fusion with rhBMP-6 Exposed Osteoprogenitor Cells. 47th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2003
119. Valdes M, Keeping H, Robertson A, Appel AJ, McGough R, Moore DC, Palumbo M, Lucas P, Ehrlich MG. Vascularization of a DBM Carrier Mass in the Lumbar Posterolateral Fusion Rabbit Model. 47th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2003.
120. Valdes M, Keeping H, Robertson A, Appel AJ, McGough R, Moore DC, Palumbo M, Lucas P, Ehrlich MG. Vascularization of a DBM Carrier Mass in the Lumbar Posterolateral Fusion Rabbit Model. *Accepted for presentation at World Spine II: The Second Interdisciplinary Congress on Spine Care, Chicago, IL, August 2003*
121. Valdes M, Keeping H, Robertson A, Appel AJ, McGough R, Moore DC, Palumbo M, Lucas P, Ehrlich MG. Enhancing Posterolateral Spinal Fusion with rhBMP-6 Exposed Osteoprogenitor Cells. *Accepted for presentation at World Spine II: The Second Interdisciplinary Congress on Spine Care, Chicago, IL, August 2003.*
120. Alford J, Fadale P, Crisco J, Moore DC, Ehrlich, MG, Bioresorbable Fillers Reduce Stress Risers from Screw Holes.
121. Poster Exhibit, AAOS Annual Meeting, March 2004.
122. Schiller, JR, Moore DC, Ehrlich MG. Increased Distraction Rate Decreases Expression of Angiogenic and Osteogenic Growth Factors in Distraction Osteogenesis. Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 2004.
123. Henn RF, Nickisch F, Ebersson C, Ehrlich MG. Prevention of Recurrence of Clubfoot by Aggressive Hindfoot Realignment: Ten Year Outcome, Poster Exhibit, Annual Meeting of the Pediatric Orthopaedic Society of North America, St. Louis, Missouri, April 2004.
124. Ehrlich, MG, Lee M, Chen, Q, Ebersson, C, Bier A. Feasibility of Biologic Epiphysiodesis. Pediatric Orthopaedic Society of North America, May 2006.

BOOK CHAPTERS

1. Ehrlich MG, Mankin HJ, and Treadwell BV: Acid Hydrolases Activity in Osteoarthritic and Normal Human Cartilage. 1974 Yearbook of Orthopaedic and Traumatic Surgery. H. Herman Young, M.D. (Ed), 165, 1974.
2. Radin E, Ehrlich MG, Weiss C, and Parker H: Osteoarthritis a State of Altered Physiology. Recent Advances in Rheumatology, Buchanan and Dick (Eds). Edinburgh, London and New York, 1976.
3. Ehrlich MG, Mankin HJ, Jones H, Grossman A, Crispen C, and Ancona D: Biochemical Confirmation of an Osteoarthritic Model. Models of Osteoarthritis. Nuki, G. (Ed) Pitman Medical Publications. London, 1977.
4. Ehrlich MG and Mankin HJ: Biochemistry of Human Osteoarthritis. Aetiopathogenesis of Osteoarthrosis. Nuki, G., (Ed). Pitman Medical Publications. London, 29, April 1980.
5. Ehrlich MG: Tarsal Coalition. Disorders of the Foot. Jahss, M. (Ed) W.B. Saunders Company, Philadelphia, 521, 1982.
6. Ehrlich MG: The Effect of Drugs on Cartilage. Osteochondral Allografts: Biology, Banking, and Clinical Applications. Friedlaender GE, Mankin HJ, and Sell KW (Eds), Little, Brown and Company, Boston, 335, 1983.
7. Ehrlich MG, Ishizue K, Stefanich R, and Mankin HJ: The Treatment of Degenerative Arthritis by Enzyme Inhibition Therapy. Osteoarthritis: Current Clinical and Fundamental Problems. Peyron, JG (Ed) pp. 215-222, 1985.
8. Ehrlich MG and Zaleske DJ: Trauma to the Immature Musculoskeletal System. Trauma Management. Burke, JF (Ed) Boyd, R.J., and McCabe, CJ pp. 533-563. YearBook Medical Publishers, Chicago, 1988.
9. Ehrlich M.G.: Shoulder Problems in Children. The Shoulder. Rowe, CR (Ed) 455-471, Churchill Livingstone New York, 1988.
10. Ehrlich MG, Zaleske DJ, Armstrong AL, Sternlicht and Mankin HJ: Physeal Biochemistry. Behavior of the Growth Plate. Uthoff, HK, and Wiley, JJ (Eds) 25-29, Raven Press, New York, 1988.
11. Ehrlich MG, Zaleske DJ, Lalanandham T, and Mankin HJ: Biology of Growth Plate Transfers. Behavior of the Growth Plate. Uthoff, HK and Wiley, JJ (Eds) 61-64, Raven Press, New York, 1988.
12. Herzog D, Ehrlich MG: Psychiatric Problems for the Orthopaedic Patients. Harriet Lane's Handbook of Pediatrics, 1990.
13. Ehrlich MG, Matook G: Congenital Dislocation of the Hip. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), Vol. 2 p 2427-2432, Oxford University Press, Oxford, England, 1994.
14. Ehrlich MG, Matook G: Legg-Perthes Disease. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), Vol 2 p 2433-2438, Oxford University Press, Oxford, England, 1994.
15. Ehrlich MG, Matook G: Slipped Capital Femoral Epiphysis. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), p 2438-2441, Oxford University Press, Oxford, England, 1994.
16. Ehrlich MG, Matook G: Cavus Foot. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), Vol. 2 p 2449-2451, Oxford University Press, Oxford, England, 1994.
17. Ehrlich MG, Matook G: Club Feet. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), Vol. 2 p 2441-2444, Oxford University Press, Oxford, England, 1994.
18. Ehrlich MG, Matook G: Flat Feet. Oxford Textbook of Surgery. Malt RA, Morris PJ (Eds), Vol 2 p2444-2449, Oxford University Press, Oxford, England, 1994.
19. Akelman E, Ehrlich MG, Sachar K: Forearm Synostosis. Hand Clinics. WB Saunders, August, 1994.
20. Ehrlich MG, Akelman E: Orthopaedic Disorders of the Extremities. Current Pediatric Therapy (15). Burg F, Wald E, Ingelfinger J, Polin R (Eds), Saunders WB, Philadelphia, PA, 1996.
21. Ehrlich MG, DaSilva M, DiGiovanni C: Orthopaedic Conditions. In Practical Guide to the Care of the Pediatric Patient. Alario AJ (Ed), Mobsy-Year Book, Inc. St. Louis, pp 415-430, 1997.
22. Ehrlich MG, Armstrong A: The Role, Characterization, and Localization of Physeal Stromelysin. In Skeletal Growth and Development: Clinical Issues an Basic Science Advances. Buckwalter JA, Ehrlich MG, Sandell LJ, Trippel, SB (Eds), AAOS, pp. 241-251, 1998.
23. Ehrlich MG, Hamdy RC: Cerebral Palsy. Principles and Practice of Rehabilitation Medicine. Shahani B, (Ed), Williams & Wilkins. In press.
24. Ehrlich MG, Hamdy RC: Myelodysplasia. Principles and Practice of Rehabilitation Medicine. Shahani B, (Ed), Williams & Wilkins. In press.

26. Aaron, RK, Bluman, EM, Ehrlich MG, Trafton, PG, The Pelvis, Hip and Thigh: In Greene WB, ed. Netter's Orthopaedics. Charlotte, NC: Saunders; pp.363-395, 2006.
27. Ehrlich MG, Ebersson CP, Leg-Calve Perthes Disease. In Malt RA, Morris PJ, eds. The Oxford Textbook of Surgery, 2nd Edition. Oxford, NY; Oxford University Press, pp. 3167-3172. 2006.