

CURRICULUM VITAE

Brian P. McKeon, MD

Orthopedic Surgeon, New England Baptist Hospital, Boston, MA

Assistant Clinical Professor Orthopedics, Tufts Univ. School of Medicine

Chief Medical Officer and Head Team Physician for the Boston Celtics (2004-2018)

Boston Sports and Shoulder Center

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Physician Assistant: Jason Rand, MSPT, PA-C (randpa@gmail.com)

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EDUCATION

Undergraduate:

1988 BS Biology University of Connecticut – Cum Laude

Medical School:

1993 MD Georgetown University School of Medicine, Alpha Omega Alpha

POSTDOCTORAL TRAINING

Internship and Residencies:

7/93 - 6/94 General Surgery Univ. of Connecticut Integrated Residency Program

7/94 - 6/97 Orthopedics Univ. of Connecticut Integrated Residency Program

7/97 - 6/98 Chief Orthopedic Resident Univ. of Connecticut Integrated Residency Program

Fellowships:

8/98 - 7/99 Sports Medicine Fellowship New England Baptist Hospital, Boston, MA

5/04 Sabbatical with Lars Peterson, MD Gothenburg, Sweden – 6 weeks

8/12 Sabbatical with Pierre Pablo Mariani, MD Rome, Italy – 1 week

LICENSURE AND CERTIFICATION:

1990 NBME part I

1993 NBME part II

1994 NBME part III

1998 ABOS part I – passed (99th percentile)

2001 ABOS part II

1998 Mass. State Medical License # 156516

ACADEMIC APPOINTMENTS

2005 Assistant Clinical Professor Orthopedics, Tufts Univ. School of Medicine

1995 Sports Medicine Fellowship Instructor, NEBH

HOSPITAL APPOINTMENTS

2004-present Boston Outpatient Surgical Suites

1998-present Associate Staff, New England Baptist Hospital Bone and Joint Institute, Orthopedic Surgery

AWARDS AND HONORS

1988 Cum Laude Univ. of Connecticut
1993 AOA Georgetown Univ School of Medicine
1995 Newington Children's Hospital – Winner James Carey Award
1999 ABOS part I 99th percentile
2003,2004,2007 Best teacher award NEBH sports med dept.
2004 Best poster award ICRS, Gent, Belgium
2009 Beckers Hospital Review- Top 70 Knee Surgeons in America
2015 Beckers Hospital Review- 59 Great Orthopedic Surgeons Rec by Healthcare Leaders
2017 Beckers ASC Review- 105 Knee Surgeons to Know
2009-2019 Boston Magazine Top Doctor (voted by peers every year eligible)

HOSPITAL, MEDICAL SCHOOL, OR UNIVERSITY COMMITTEE ASSIGNMENTS

2004-08 Medical Director: Boston Outpatient Surgical Suites, Waltham, MA
2010-present Board member BOSS
2003-06 AOSSM Abstract review/Education Committee

TRAINING OF GRADUATE STUDENTS/POST DOCTORAL

1999-present: *Team Leader Sports Medicine Fellowship, NEBH
*Direct a 6 month (1 hr/wk) Basic Science core reading program for fellows, residents and PA's (1999-2011)
*Tufts Medical Student/Resident office rotations
1999-2001: Orthopedic Preceptor Tufts Univ. Family Practice Residency

TEACHING RESPONSIBILITY

1998-1999 Student lecture, Northeastern University- Dept. of Physical Therapy, Lecturer
1998-2009, Boston Shoulder Symposium: Lecturer, Lab Instructor, course Co-Director, New England Baptist Hospital
1999-2000, Athletic Knee Injuries: Lecturer, Lab Instructor, New England Baptist Hospital
1999-2009, New England Baptist Sports Medicine Conference, Lecturer, Program, New England Baptist Hospital Department of Orthopaedics
1999-present, New England Baptist Hospital Sports Medicine Fellowship Instructor, New England Baptist Hospital Department of Orthopaedics
04/2000, Decision making in Cartilage Lesions, Visiting Professor, Maine Medical Center, Portland, ME
04/2001, Knee Osteoarthritis: Viscosupplementation, Visiting Professor, Rhode Island Orthopedic Society, Providence, RI
06/2001, New England Baptist Sports Course (Live Broadcast to Brazil), Lecturer and Lab Demonstration, Brazilian Orthopedic Society, Boston, MA
2002, Arthroscopy Association of North America, Fall Course: Lab Instructor, Palm Desert, CA
2003, Advanced Shoulder Arthroscopy, Arthroscopy Association of North America: Lab Instructor, Orthopedic Learning Center, Chicago IL
05/2003 & 03/2004, Live ACL reconstruction demonstration, New England Occupational Medicine Conference, Boston, MA
2006, Specialty Day Moderator, American Orthopaedic Society for Sports Medicine, Chicago, IL
2005,2006,2009, Arthroscopy Association of North America Course: Lab Instructor
1998-2019 Boston Sports and Shoulder Symposium Faculty/Lecturer/Bio-skills Lab instructor

PROFESSIONAL SOCIETIES

American Orthopaedic Society of Sports Medicine 1998
International Cartilage Repair Society 1999
New England Orthopedic Society 1999
NBA Team Physicians Society 1999-2018
Fellow of the American Academy of Orthopedic Surgeons 2002
Arthroscopy Association of North America 2004

MAJOR RESEARCH INTERESTS

2015- present Principal Investigator VENUS TRIAL. Clinicaltrials.gov NCT02136901

RESEARCH SUPPORT

Fully funded clinic trial – Active Implants VENUS
Fully funded clinical trial – Conformis
New England Baptist Hospital Funding Award Recipient
Unicompartmental Arthroplasty
Synovitis (Knee)
Postural Analysis and Injury Prevention

EDITORIAL BOARDS AND ACTIVITY

Patents

Anchor® Golf Training Aid
United States Patent No. US 6,361,448 B1
United States Patent No. US 6,692,369 B2
United States Patent No. US 7,163,464 B2

Surgical knee holder
United States Patent No. US 8,099,808 B1

Locking brace hinge
United States Patent No. US 8,425,439 B1

Surgical shoulder holder
United States Patent No. US 8,273,047 B1

PostureTek Shirt®
United States Patent No. US 8,083,693 B1

US Trademarks

The Anchor®
PostureTek shirt®
PostureTek Tank™
Perseus Athletics®
Perseus Athletics Logo®

Company and Disclosures

President and Founder of **Perseus Athletics, LLC**
Company started in 2002. Develops athletic training and human improvement aids, orthopedic devices
www.Perseusathletics.com.
Company closed 2017

Conformis, Inc. Scientific Advisory Board member 2008-2012

Parcus Medical, Inc Scientific Advisory Board Member 2008-present

Boston Outpatient Surgical Suites, Minority Owner

BIBLIOGRAPHY

Abstracts and Meeting Presentations

McKeon BP, Berberian B. Dermatological manifestations of lymphatic filariasis. DC Dermatological Society, Washington, DC; March, 92.

McKeon BP, Cooper PS, Briggs LJ. Mechanoreceptors in human lateral ankle ligaments. American Academy of Orthopaedics Surgeons, Orlando, FL; February, 95.

McKeon BP, Cooper PS, Briggs LJ. Mechanoreceptors in human lateral ankle ligaments. American Orthopaedic Association Annual Residence Conference, Pittsburgh, PA; March, 95.

Cooper PS, McKeon BP, Gossling H, Briggs LJ. Mechanoreceptors in human lateral ankle ligaments. First Annual COMFAS Conf. Dublin, Ireland; August, 95.

McKeon BP, Thomson JD, Banta JV. Luque-rod segmental instrumentation for spinal fusion in Neuromuscular scoliosis. Newington Research Day, Newington, CT; December, 1995. **Winner of James Cary Award.**

McKeon BP, Thomson JD, Banta JV. Luque-rod segmental instrumentation for spinal fusion in Neuromuscular scoliosis. American Academy of Orthopaedic Surgeons, Atlanta, GA; February, 1996

McKeon BP, Thomson JD, Banta JV. Luque-rod segmental instrumentation for spinal fusion in Neuromuscular scoliosis. Pediatric Orthopaedic Society of North America, Toronto, Canada; May, 1996.

McKeon BP, Thomson JD, Banta JV. Luque-rod segmental instrumentation for spinal fusion in Neuromuscular scoliosis. Scoliosis Research Society, Philadelphia, PA; November, 1996. **Nominated for Russell Hibbs Award.**

McKeon BP, Langeland R, Fulkerson JP. Ligament-Tendon Fixation to Bone: A biomechanical evaluation of the Krackow suture technique. American Academy of Orthopaedic Surgeons, San Francisco, CA; February, 1997.

McKeon BP, Donahue B, Tarinelli D, Fulkerson JP. Biomechanical evaluation of a soft tissue interference screw in free tendon ACL graft fixation. Residents and Fellows Arthroscopy Conference, Phoenix, AZ; April. 1998.

McKeon BP, Karlson JA, Scheller AD. Preliminary results of Autologous Chondrocyte Implantation for full thickness chondral defects in the knee. International Cartilage Repair Society, Boston, MA; November, 1998.

McKeon BP, Karlson JA, Scheller AD. Preliminary results of Autologous Chondrocyte Implantation for full thickness chondral defects in the knee. New England Orthopaedic Society, Boston, MA; November, 1998.

McKeon BP, Donahue B, Tarinelli D, Fulkerson JP. Biomechanical evaluation of a soft tissue interference screw in free tendon ACL graft fixation. American Academy of Orthopaedic Surgeons, Anaheim, CA; February, 1999

Bashir A, McKeon BP, Scheller AD, Gray M, Burstein. DGEMRIC evaluation of Autologous Chondrocyte Transplantation. International Cartilage Repair Society, Gothenburg, Sweden; February, 2000.

Williams A, Burstein D, McKeon BP. In vivo Observations of Cartilage GAG in the Knee. Seventh Annual Morrison Research Day, BIDMC. Boston, MA 2002

Curtis A, Shurland A, McKeon B, Deshmukh R. Arthroscopic evaluation of the infra-capsular anatomy of the glenohumeral joint. E-poster, AANA spring meeting 2004.

McKeon B, Samuel R, Minos L, Scheller AD. Intraoperative performance of Radiofrequency Probes for the treatment of Articular Cartilage Defects. Poster at ICRS 2004, Gent, Belgium. **WINNER BEST POSTER AWARD**

McKeon B, Swaim B, Richmond JC, Weitzel P, Katz JN, Goldring S. Development and Validation of an Intra-Operative Grading System to Define the Role of Synovitis after Meniscal Knee Injury. Poster, New England Baptist Hospital Summer Research Program, Boston, MA, 2007.

McKeon B, Dougherty K, Sprague M, James K. OrthoMend integration into the Supraspinatus Tendon following Rotator Cuff Repair in an animal model. New England Baptist Hospital Summer Research Symposium, Boston, MA, 2007.

McKeon B, Burstein D, Peterson L. MRI of Cartilage. ANNA, Orlando, FL 2007.

McKeon B. A safe golf swing: an orthopedic surgeon's perspective. Boston Golf Expo, March 2009.

McKeon BP. Orthopedic concerns about Posture. The first annual Boston Posture Symposium. Mass Medical Society, June 2009.

Danielson B., Peterson L., Vijayakumar S., Krishnan N., Burstein D., McKeon B. MRI and Clinical follow-up more than 9 Years after Autologous Cartilage Implants in the Knee. Poster Presentation, New England Baptist Hospital Annual Research meeting. June 2009.

CR Scanzello, McKeon B, Swaim BH, DiCarlo E, Umoh E, Kanda V, Nair A, Lee DM, Richmond JC, Katz JN, Crow MK, Goldring SR. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. June 2010. European League Against Rheumatism (EULAR) Congress, Rome Italy.

CR Scanzello, McKeon B, Swaim BH, DiCarlo E, Umoh E, Kanda V, Nair A, Lee DM, Richmond JC, Katz JN, Crow MK, Goldring SR. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. Sept. 2010. OARSI World Congress, Brussels Belgium.

McKeon B, Synovial Inflammation in Patients Undergoing Synovectomy. Boston Sports and Shoulder Center Symposium. Mass Medical Society, October 2010.

D. Giangreco, A. Nair, N. Verma, C. Bush-Joseph, M. Tetreault, B. McKeon, A. Finnegan, C. R. Scanzello. Synovial Expression Of T Lymphocyte Subsets In Patients With Meniscal Injury, for the 2013 ACR/ARHP Annual Meeting.

Arbel R, Verdonk P, Condello V, McKeon BP, Kaeding, C, Zaslav KR. Early Clinical Results of an Interpositional Knee Endoprosthesis versus Non- Surgical Controls: First 75 Patients of a Randomized Control Trial at 2 Years Follow-up. Abstract submitted to the German Arthroscopy Association (AGA); Sept. 12-14, 2019; Manheim, Germany.

Zaslav KR, McKeon BP, Gersoff WK, Alfred R, Alley RM, Edelson RH, Greenleaf JE, Kaeding C. Clinical Results of the NUsurface® Implant vs Non-Surg Controls: First 100 Patients from RCT and Single-Arm Observational Study at 12 Months. Abstract submitted to the Cartilage Regeneration & Joint Preservation Society (ICRS); Oct. 5-8, 2019; Vancouver, Canada.

Peer-reviewed abstracts:

CR Scanzello, A Albert, E DiCarlo, KB Rajan, EU Asomugha, V Kanda, B Swaim, P Weitzel, JC Richmond, SR Goldring, B McKeon. Two-year post-surgical outcomes in patients undergoing arthroscopic partial meniscectomy: The influence of synovitis. Accepted, Orthopedic Research Society Meeting, San Francisco Feb 2012.

CR Scanzello, EF DiCarlo, V Kanda, A Albert, SR Goldring, JC Richmond, B McKeon. Relationship Between Synovitis and Two-Year Post-Surgical Outcomes in Patients Undergoing Arthroscopic Partial meniscectomy. *Arthritis and Rheumatism* 2011; 63(10 Suppl): S414 (#1065).

CR Scanzello, McKeon B, Swaim BH, DiCarlo E, Asomugha E, Kanda V, Nair A, Lee DM, Richmond JC, Katz JN, Crow MK, Goldring SR. A specific chemokine expression pattern is associated with synovial inflammation and symptoms in patients with traumatic knee injury undergoing arthroscopic meniscectomy. *Arthritis and Rheumatism* 2010; 62(10 Suppl): S71 (#167): Notable Poster (top 15%).

CR Scanzello, McKeon B, Swaim BH, DiCarlo E, Umoh E, Kanda V, Nair A, Lee DM, Richmond JC, Katz JN, Crow MK, Goldring SR. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. *Osteoarthritis and Cartilage* 2010; 18 (Suppl 2): S31-32 (#053).

CR Scanzello, McKeon B, Swaim BH, DiCarlo E, Umoh E, Kanda V, Nair A, Lee DM, Richmond JC, Katz JN, Crow MK, Goldring SR. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. *Annals of the Rheumatic Diseases* 2010;69(Suppl3): 108.

CR Scanzello, BP McKeon, E Umo, B Swaim, EF DiCarlo, DJ Hunter, JC Richmond, JN Katz, MK Crow, SR Goldring. Acute Meniscal Injury Is Associated with Synovial Inflammation: Cellular and Molecular Characterization of Synovitis *Arthritis and Rheumatism* 2009; 60(10 Suppl): #832.

Publications

Fulkerson JP, McKeon BP, Donahue B, Tarinelli D. The Central Quadriceps Tendon as a Versatile Graft Alternative in ACL reconstruction: Techniques and Recent Observations. *Techniques in Orthopaedics*, vol 13, 4, 1998.

Nagarkatti DG, McKeon BP, Donahue BS, Fulkerson JP. Mechanical Evaluation of a Soft Tissue Interference Screw in Free Tendon Anterior Cruciate Ligament Graft Fixation. *AJSM*, vol 29, 1, 2001.

Gillis A, Bashir A, McKeon BP, Scheller AD, Gray M, Burstein D. MRI Imaging of Relative Glycosaminoglycan Distribution in Patients with Autologous Chondrocyte Transplants. *Investigative Radiology*, vol 36, 12, 2001.

Williams A, Gillis A, McKenzie C, Po B, Sharma L, Micheli L, McKeon B, Burstein D. Glycosaminoglycan distribution in cartilage as determined by delayed gadolinium-enhanced MRI of cartilage (dGEMRIC): potential clinical applications. *Am J of Radiology*, Jan, 182(1), 2004.

McKeon BP, Heming J, Langeland R, Fulkerson JP. Ligament-Tendon Fixation to Bone: A biomechanical evaluation of the Krackow suture technique. *Arthroscopy*, vol 22(1): 33-37, 2006.

McKeon, BP, Baltz MS, Curtis, AS, Scheller, AD. Fluid temperatures during radiofrequency use in shoulder arthroscopy. *Journal of Shoulder and Elbow Surgery*, vol 16(1), 107-111, 2007.

McKeon B, Gordon M, DeConciliis G, Scheller A. The “safe zone” for femoral cross-pin fixation. An anatomical study. *Am J of Knee Surgery*, 20 (4): 285-88, 2007.

Khetia E, McKeon BP. Meniscal Allografts: Biomechanics and Techniques. *Sports Med Arthrosc Rev*,15 (3):114-120,2007.

Burbank K, Freedman I, McKeon B, Curtis A. Arthroscopic evaluation of the Infra-capsular anatomy of the Glenohumeral joint. Submitted to *JSES*.

McKeon B, Heming J. A Biomechanical Comparison of Dovetail and Suture Only Fixation of Meniscal Allografts to Intact Meniscus. Submitted to *Am J of Knee Surg*, 2007

McKeon B, Minos L, Scheller A. Histological findings after in vivo radiofrequency-based thermal chondroplasty for treating grade II or III defects. Currently under revision.

Danielson B., Peterson L., Vijayakumar S., Krishnan N., Burstein D., McKeon B. MRI and Clinical Follow-up More than 9 Years after Autologous Cartilage Implants in the Knee. Poster Presentation New England Baptist Hospital Annual Research meeting. June 2009.

Danielson B, Peterson L, Vasiliadis H, Ljungberg M, Burtstein D, McKeon B. MRI with dGEMRIC analysis and clinical follow-up more than nine years after autologous chondrocyte implantation in the knee. Submitted to *Am J of Radiology*. June 2009.

Danielson B, Vasiliadis H, Vijayakumar S, McKeon B. Clinical, Morphologic MRI, and dGEMRIC Evaluation 9 to 20 Years after Autologous Chondrocyte Implantation in the Knee. Submitted to *Cartilage*. December 2009.

Danielson B, Vasiliadis HS, Ljungberg M, McKeon B, Lindahl A, Peterson L. Autologous Chondrocyte Implantation in Cartilage Lesions of the Knee: Long-term Evaluation with Magnetic Resonance Imaging and Delayed Gadolinium-Enhanced Magnetic Resonance Imaging Technique. *Am J Sports Med*. 2010 Feb 25.

Carla R. Scanzello MD PhD^a, Brian McKeon MD^b, Brian H. Swaim MS^b, Edward DiCarlo MD^c, Eva Umoh MD^c, Veero Kanda MD^a, David M. Lee MD PhD^d, John C. Richmond MD^b, Jeffrey N. Katz MD^d, Mary K. Crow MD^c, Steven R. Goldring MD. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. Submitted to *Rheumatology*. April 8, 2010

Vasiliadis HS, Danielson B, Ljungberg M, Mckeon B, Lindahl A, Peterson I. Autologous Chondrocyte Implantation in Cartilage Lesions of the Knee: Long-term Evaluation With Magnetic Resonance Imaging and Delayed Gadolinium-Enhanced Magnetic Resonance Imaging Technique. *AM J Sports Med*. 2010 Feb 25[Epub ahead of print]

CR Scanzello, B McKeon, BH Swaim, E DiCarlo, EU Asomugha, V Kanda, A Nair, DM Lee, JC Richmond, JN Katz, MK Crow, SR Goldring. Synovial inflammation in patients undergoing arthroscopic meniscectomy: molecular characterization and relationship with symptoms. *Arthritis & Rheumatism*; 2011; 63:391-400.

CR Scanzello, A Albert, E DiCarlo, KB Rajan, V Kanda, EU Asomugha, BH Swaim, J N Katz, P Weitzel, SR Goldring, JC Richmond, B McKeon. The impact of synovial inflammation and lining hyperplasia on symptomatic outcomes up to two-years post-operatively in patients undergoing partial meniscectomy. *Submitted September 2012 to Annals of the Rheumatic Diseases*.

Williams A, Gillis A, McKenzie C, Po B, Sharma L, Micheli L, McKeon B, Burstein D. Glycosaminoglycan distribution in cartilage as determined by delayed gadolinium-enhanced MRI of cartilage (dGEMRIC): potential clinical applications. *Academic Radiology*, vol 21(4): 463-471, 2014.

Elsner J, McKeon BP. Orthopedic Applications of Polycarbonate Urethanes. A review. *Techniques in Orthopedics* 2017, vol 32, issue 3.

Talmo CT¹, Anderson MC², Jia ES², Robbins CE², Rand JD¹, McKeon BP¹. High Rate of Early Revision After Custom-Made Unicondylar Knee Arthroplasty. *Journal of Arthroplasty*. July 2018, vol 33, issue 7.

McKeon BP, Edelson RH, Gersoff WK, Greenleaf JE, Zaslav KR. The need for a durable meniscus implant: defining the ideal implant for addressing the treatment gap. Manuscript in finalization for journal submission, 2019.

McKeon BP, Zaslav KR, Alfred R, Alley RM, Edelson RH, Gersoff WK, Greenleaf JE, Kaeding C. Preliminary Results from Two U.S. Clinical Trials Evaluating the Safety and Effectiveness of the NUsurface® Meniscus Implant. Manuscript in finalization for journal submission, 2019.

Book Chapters:

McKeon BP. *Transfix Anterior Cruciate Ligament Reconstruction and Basic Science*. Elsevier Pub. Ed. Chadwick Prodromos. Chap 36: 261-266, 2008.

McKeon BP. *Current Concepts in Articular Cartilage*. Springer Pub. Eds. McKeon, B, Bono J, Richmond, JR. In , *Knee Arthroscopy*, March 2009, pp 79-113.

McKeon BP. *Treatment of Osteoarthritis of the Middle-Aged Athlete*. Eds. McKeon B, Richmond JR. In, *Sports Medicine and Arthroscopy Review*. In submission 2012.

Text Books:

Knee Arthroscopy, Eds. McKeon B, Bono J, Richmond JR. Springer Publishing Co. March 2009

PROFESSIONAL EXPERIENCE

Residency:

Physician coverage for local High School football games

Avon, CT (Team Physician) 1994, '95, '96, '97

Platt, Meriden, CT 1996, '97

South Windsor, CT 1997

Regular physician for local amateur Boxing matches

San Juan Boxing Center, Hartford, CT 1994, '95, '96, '97, '98

Physician coverage for Trinity College hockey/football

Hartford, CT 1994, '95, '96, '97, '98

Assistant to Team Physician (Dr. Fulkerson) - Hartford Wolfpack Hockey 1998

Fellowship:

Physician coverage for local High School Football 1998

Physician coverage for Division I and II College Football, Hockey

Assistant to Team Physician (Dr. Scheller) - Boston Celtics 1998-99

Attending:

Orthopaedic coverage **US Gymnastics Olympic Trials**, Boston, MA 8/2000

Assistant team physician **Boston Celtics**, Boston, MA 1999-2004

Head Team Physician **Boston Celtics** 2005-2018