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**EDUCATION:**

1979 A.B. Dartmouth College (Engineering Sciences with Distinction)  
1983 M.D. Cornell University Medical College

**POSTDOCTORAL TRAINING:**

**Internship and Residencies:**

1984-1985 Intern in Surgery, Brigham and Women's Hospital, Boston  
1986-1989 Resident in Orthopedic Surgery, Harvard Combined Orthopedic Residency Program, Boston  
1990 Chief Resident in Orthopedic Surgery, Children's Hospital, Boston

**Clinical and Research Fellowships:**

1983-1984 Research Fellow in Orthopedic Biomechanics, Brigham and Women's Hospital, Boston  
1985-1986 Research Fellow in Orthopedic Biomechanics, Children's Hospital, Boston  
1990-1991 Maurice E. Muller Fellow in Adult Reconstructive Surgery, Massachusetts General and Brigham and Women's Hospitals, Boston; Inselspital, Bern, Switzerland

**LICENSURE AND CERTIFICATION**

1987 Massachusetts Board of Registration in Medicine 58245  
1993 Diplomate of the American Board of Orthopedic Surgery (99<sup>th</sup> Percentile)  
2004 American Board of Orthopedic Surgery Recertification, scheduled for recertification 7/2016

**ACADEMIC APPOINTMENTS:**

1983-1984 Research Fellow in Orthopedic Surgery, Harvard Medical School  
1984-1986 Clinical Fellow in Surgery, Harvard Medical School  
1985-1986 Research Fellow in Orthopedic Surgery, Harvard Medical School  
1986-1991 Clinical Fellow in Orthopedic Surgery, Harvard Medical School  
1991-2005 Instructor in Orthopedic Surgery, Harvard Medical School  
2000-2003 Clinical Instructor in Orthopedic Surgery, Tufts University School of Medicine  
2003-2011 Clinical Assistant Professor of Orthopedic Surgery, Tufts University School of Medicine  
2011- Associate Professor of Orthopedic Surgery, Tufts University School of Medicine

## **HOSPITAL APPOINTMENTS:**

1991-Present	Associate Orthopedic Surgeon, New England Baptist Hospital, Boston.
1991-Present	Associate Orthopedic Surgeon, Beth Israel Deaconess Medical Center, Boston.
1998-2015	Associate Orthopedic Surgeon, Newton-Wellesley Hospital, Newton, Massachusetts

## **Awards and Honors:**

1982	Cornell University Medical College Dean's Research Prize
1983	National Research Service Award
1984	Harvard Medical School Alumni Award for Best Paper in the Clinical Sciences by a Resident or Fellow
1986	Orthopedic Research and Education Foundation Resident Research Fellowship Award
1987	Edwin F. Cave Research Fellowship Award
1989	Orthopedic Research and Education Foundation Resident Research Fellowship Award
1990	Maurice E. Muller Fellowship
1990	Frank E. Stinchfield Award, The Hip Society
1993	AO-ASIF Research Grant: The Mechanical Analysis of Hip Dysplasia
1994	AO-ASIF Research Award: Joint Contact Pressures in the Dysplastic hip.
1996	AO-ASIF Research Award: Simulation of surgery for Hip Dysplasia
2005	New England Baptist Hospital Research Award. Femoroacetabular Impingement: Validation of a New Non-Invasive Clinical Test for Range of Motion and Impingement Prediction
2005	Best Clinical Paper Award for 2005. International Society for Computer Assisted Orthopedic Surgery. Tissue-Preserving Computer-Assisted Total Hip Arthroplasty – Faster Recovery and Lower Complication Rate Without Compromising Accuracy of Cup Orientation
2007	Otto E. Aufranc Teaching Award, New England Baptist Hospital
2009	Swiss Society for Orthopedics and Traumatology, Scientific Poster Award. Steppacher SD, Tannast M, Zheng G, Zhang Z, Kowal J, Siebenrock K, Murphy S. Accuracy of CT-based Computer-navigated Total Hip Arthroplasty
2011	Scientific Exhibit Award of Excellence. American Academy of Orthopedic Surgeons
2016	Maurice E. Muller Award for Excellence in Computer-Assisted Orthopedic Surgery. The International Society for Computer Assisted Orthopedic Surgery

## **HOSPITAL, MEDICAL SCHOOL, OR UNIVERSITY COMMITTEE ASSIGNMENTS:**

1991-1999	Trauma Care Committee, Beth Israel Hospital
1991-1993	Cancer Care Committee, Beth Israel Hospital
1992-1996	Quality Assurance Committee, Beth Israel Hospital
1994-1996	Anticoagulation Subcommittee of the Pharmacy and Therapeutics Committee, Beth Israel Hospital
1995	Core curriculum committee, Harvard Combined Orthopedic Residency Program
1995	Core Curriculum Committee, Tufts Orthopedic Residency Program
2003-Present	Arthroplasty Committee, New England Baptist Hospital

## **OTHER MAJOR COMMITTEE ASSIGNMENTS:**

1989	Advisory Committee on Electronic Imaging, National Library of Medicine
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## **TRAINING OF GRADUATE STUDENTS/POST DOCTORAL**

2005	Moritz Tannast, MD, Post-doctoral research advisor
2006-2007	Timo Ecker, MD, Post-doctoral research advisor
2008	Simon Steppacher, MD, Post-doctoral research advisor

## **TEACHING RESPONSIBILITY**

1991-2000	Harvard Combined Orthopedic Residents rotating through Beth Israel Hospital
2001-Present	Tufts Orthopedic Residents rotating through New England Baptist Hospital and Otto E. Aufranc Fellows in Reconstructive Surgery, New England Baptist Hospital

## **PROFESSIONAL SOCIETIES**

1988-Present	Massachusetts Medical Society
1995-Present	American Academy of Orthopedic Surgeons
1998-Present	American Association of Hip and Knee Surgeons
1999-Present	International Society for Technology in Arthroplasty
2000-Present	International Society for Computer Assisted Orthopedic Surgery (Founding Member)
2002-Present	The Hip Society

## **OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES**

2002-2012	American Academy of Orthopedic Surgeons Subcommittee on Hip and Knee Evaluation
2006-2007	Second Vice President, International Society for Computer Assisted Orthopedic Surgery
2007-2008	First Vice President, International Society for Computer Assisted Orthopedic Surgery
2008-2009	President, International Society for Computer Assisted Orthopedic Surgery
2010-2012	Chairman, Executive Board, International Society for Computer Assisted Orthopedic Surgery
2013-	Nominating Committee, The Hip Society
2014-	Board of Directors, International Society for Technology in Arthroplasty
2014-2015	Vice President, International Society for Technology in Arthroplasty
2015-2016	President, International Society for Technology in Arthroplasty

## **MAJOR RESEARCH INTERESTS**

Mechanical modeling of hip dysplasia  
Computer-aided analysis and simulation of surgery  
Development of surgical navigation instruments and techniques  
Development of improved surgical techniques for hip surgery  
Principal Investigator of Nationwide Multicenter FDA/IDE study of Alumina Ceramic-Ceramic Bearings in Total Hip Arthroplasty (Cleared by FDA February 3, 2003)  
Clinical outcomes following tissue-preserving total hip arthroplasty  
Clinical outcomes following computer assisted hip and knee arthroplasty  
Simulation of hip joint motion in normal hips and hips with femoroacetabular impingement  
Statistical prediction of individual patient three-dimensional pelvic anatomy based on two plain radiographs

## **RESEARCH SUPPORT**

Parker Hill Orthopedic Research Foundation: Total Cost of Care following Total Hip Arthroplasty as a function of surgical technique

#### **EDITORIAL BOARDS AND ACTIVITY**

2002- Reviewer, Journal of Bone and Joint Surgery, American  
2002- Reviewer, Journal of Arthroplasty  
2003- Reviewer, Clinical Orthopedics and Related Research  
2003-2005 Editorial Board, Journal of Arthroplasty  
2009- Reviewer, European Radiology

#### **BIBLIOGRAPHY**

#### **REFEREED MANUSCRIPTS**

Murphy SB, Walker PS, Schiller AL. Functional adaptation of the human femur to uncemented hip prosthesis implantation. *Journal of Bone and Joint Surgery Am.* 1984 Mar; 66(3):437-43.

Murphy SB, Inventor; Murphy SB, Assignee. Method of Prosthesis Design. US4,506,393. 1985 Mar 26.

Murphy SB, Kijewski PK, Simon SR, Griffin PP, Chandler HP, Reilly DT, Penenberg BL, Landy ML. Computer-aided analysis, simulation and design in orthopaedic surgery. *Orthopaedic Clinics of North America.* 1986; 17(4):637-649.

Murphy SB, Kijewski PK, Simon SR, Wilkinson RH, Griscom NT. Femoral anteversion. *Journal of Bone and Joint Surgery.* 1987; 69A(8):1169-1186.

Walker PS, Schneeweis D, Murphy SB, Nelson P. Strains and micromotion of press-fit stem prostheses. *Journal of Biomechanics.* 1987; 20(7):693-702.

Murphy SB, Kijewski PK, Millis MB, Hall JE, Simon SR, Chandler HP. The planning of orthopedic reconstructive surgery using computer-aided simulation and design. *Computerized Medical Imaging and Graphics.* 1988; 12(1):33-45.

Murphy SB, Kijewski PK, Millis MB, Harless A. Acetabular dysplasia in the adolescent and young adult. *Clinical Orthopedics and Related Research.* 1990; 261:213-222.

Millis MB and Murphy SB. Use of CT reconstruction in planning osteotomy of the hip. *Clinical Orthopedics and Related Research.* 1992; 274:154-159.

Chandler HP, Clark JE, Murphy SB, McCarthy J, Penenberg BL, Danylchuk KD, Roehr E. Reconstruction of Major Segmental Loss of the Proximal Femur in Revision Total Hip Replacement. *Clinical Orthopedics and Related Research.* 1994; 298:67.

Murphy SB, Ganz R, Müller ME. The prognosis of untreated hip dysplasia: Factors predicting outcome. *Journal of Bone and Joint Surgery,* 1995; 77A(7):985-989.

Michaeli, DA, Murphy SB, Hipp JA. Comparison of predicted and measured contact pressures in normal and dysplastic hips. *Med Eng and Physics.* 1997 Mar; 19(2):180-6.

Schneeberger, AG, Murphy, SB, Ganz, R. The Trochanteric Flip Osteotomy. *Orthopedics and Traumatology.* (9) 1997; 5:1-14.

Murphy SB, Inventor; Murphy SB, Assignee. Modular Hip Prosthesis with Discrete Selectable Angular Orientation. US5,653,764. 1997 Aug 5.

Millis MB, Murphy SB. [The Boston Concept: Peri-acetabular Osteotomy with Simultaneous Arthrotomy via Direct Anterior Approach] *Orthopaed* 1998 Nov; 27(11):751-8. German.

Murphy, SB, Millis, MB, Hall, JE. Surgical Correction of Acetabular Dysplasia in the Adult- A Boston Experience. *Clinical Orthopedics and Related Research*. 1999 June; (363):38-44.

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Hipp J, Sagano D, Millis MB, and Murphy SB. Planning acetabular redirection osteotomies based on joint Contact Pressures. *Clinical Orthopedics and Related Research*. 1999 July; (364):134-43.

Murphy SB, Deshmukh R. Periacetabular Osteotomy: Radiographic Predictors of Outcome. *Clinical Orthopedics and Related Research*. 2002 December, (405):168-174.

McCarthy J, Barsoum W, Puri L, Lee J, Murphy S, Cooke P. The Role of Hip Arthroscopy in the Elite Athlete. *Clinical Orthopedics and Related Research*. 2003 (406):71-74.

Murphy SB and Rodriguez J. Revision Total Hip Arthroplasty with Proximal Bone Loss. *Journal of Arthroplasty*. 19(4)Suppl.1 115-119, 2004.

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Murphy SB, Ecker TM, Tannast M. Conventional vs minimally invasive total hip arthroplasty. A prospective study of rehabilitation and complications. *Orthopäde*. 2006 (35)761-768. This article is in german with an abstract in english.

Murphy SB, Inventor; MicroPort Orthopedics, Assignee. Tissue Preserving and Minimally Invasive Hip Replacement Surgical Procedure. US7,105,028. 2006 Sep 12.

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Steppacher SD, Tannast M, Zheng G, Zhang X, Kowal J, Anderson SE, Siebenrock KA, Murphy SB. Validation of a new method for determination of cup orientation in THA. *Journal of Orthopedic Research*. 2009 Dec;27(12):1583-8.

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Murphy SB, Inventor; Murphy SB, Assignee. System and Method for Facilitating Hip Surgery. US7,885,705. 2011 Feb 08.

Steppacher SD, Kowal JH, Murphy SB. Improving Cup Positioning Using a Mechanical Navigation Instrument. *Clinical Orthopedics and Related Research*. (2011) 469:423-428.

Murphy SB, Inventor; Murphy SB, Assignee. Virtual Trial Reduction System For Total Hip Arthroplasty and Coordinate System Therefor. US 8078254. 2011 Dec 13.

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Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. US 8,267,938. 2012 Sep 18.

Murphy WS, Klingenstein G, Murphy SB, Zheng G. Pelvic Tilt is Minimally Changed by Total Hip Arthroplasty. Clin Orthop Relat Res. 2013 Feb;471(2):417-21.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. AU 2008319329. 2014 Apr 24.

Murphy SB, Inventor; Murphy SB, Assignee. Method for Determining Acetabular Component Positioning. JP 5,560,195. 2014 Jun 13.

Robbins CE, Case D, Bono JV, Murphy SB, Talmo CT, Ward DM. A multidisciplinary total hip arthroplasty protocol with accelerated postoperative rehabilitation: does the patient benefit? Am J Orthop. 2014 Apr;43(4):178-81.

Murphy SB, Inventor; Murphy SB, Assignee. Acetabular Template Component and Method of Using Same During Hip Surgery. US8,986,309. 2015 Mar 24.

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Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Position. AU Notice of Allowance No. 201420213. 2015 June 24.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Position. JP Notice of Allowance No. 2013-112536. 2015 July 23.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. US 9,101,378. 2015 Aug 11.

Murphy SB, Inventor; Murphy SB, Assignee. Guide for Acetabular Component Positioning. US 9 101 431. 2015 Aug 11.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Providing a Patient-Specific Pelvic Coordinate System. CA: 2,527,955. Notice of Allowance 2015 Sep 02.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. JP 5,805,140 2015 Sep 15.

Murphy SB, Inventor; Murphy SB, Assignee. System and Method for Facilitating Hip Surgery. US 13/008,547. Notice of Allowance. 2015 Oct. 23.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. AU 2014202013. 2015 Oct 29.

Murphy SB, Inventor; Murphy SB, Assignee. Method of Calibrating an Instrument to be used In Establishing a Reference Plane for Hip Arthroplasty. EU 13 153 236.8. Notice of Allowance 2016.

Murphy SB, Inventor; Murphy SB, Assignee. Method and Apparatus for Determining Acetabular Component Positioning. KR 10-1594633. 2016 Feb 05.

### **BOOK CHAPTERS/INVITED REVIEWS**

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Murphy SB, Kijewski PK, Simon SR, Millis MB. In: Lemke HU, ed. Computer-assisted Radiology. Berlin: Springer-Verlag. 1987:411-415.

Murphy SB, Kijewski PK, Millis MB, Harless A. In: Lemke HU, ed. Computer-assisted Radiology, Berlin: Springer-Verlag. 1989.

Jakob RP, Murphy SB. Tibial osteotomy for varus gonarthrosis: indication, planning, and operative technique. Instr Course Lect. 1992;41:87-93. Review.

Millis MB, Poss RP, and Murphy SB. Osteotomy of the Hip in the Prevention and Treatment of Osteoarthritis. Instructional Course Lectures of the American Academy of Orthopedic Surgeons. 1992;41:145-54.

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Kim YJ, Jaramillo D, Burstein D, Gray JL, Snyder BD, Hipp JA, Murphy SB, and Millis MB. Prospective Evaluation of Periacetabular Osteotomy for Hip Dysplasia. Harvard Journal of Orthopedics. 2000

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<http://www.vjortho.com/cgi/content/abstract/4059>

Murphy SB. Tissue-Preserving Total Hip Arthroplasty. Surgical Techniques in Orthopaedics: Minimal Incision Total Hip Arthroplasty on DVD-Video. Stuchin SA, editor. American Academy of Orthopedic



Surgeons. October, 2003. [http://www4.aaos.org/product/cd\\_item.cfm?code=02642](http://www4.aaos.org/product/cd_item.cfm?code=02642)

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Murphy SB and Tannast M. Evolution in Total Hip Arthroplasty: Computer Assisted, Minimally Invasive Techniques Combined with Alumina Ceramic-Ceramic Bearings. In D'Antonio J and Dietrich M eds. Bioceramics in Joint Arthroplasty. Darmstadt, Germany: Steinkopff Verlag. pp119-129, 2005.

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Tannast M, Kubiak-Langer M, Murphy SB, Ecker TM, Puls M, Langlotz F, Siebenrock KA. Computer-assisted Simulation of Femoro-acetabular Impingement Surgery. In JB Stiehl, WH Konermann, RG Haaker, AM DiGioia (eds.): "Navigation and MIS in Orthopaedic Surgery", Berlin, Heidelberg, New York: Springer-Verlag. pp 448-455, 2006.

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Tannast M, Steppacher SD, Murphy SB. Total Hip Arthroplasty. Orthopedic Knowledge Update. American Academy of Orthopedic Surgeons. 2011.

Wellman SS, Murphy AC, Gulszynski D, Murphy SB. Implementation of an accelerated mobilization protocol following primary total hip arthroplasty: impact on length of stay and disposition. Curr Rev Musculoskelet Med. 2011 Sep;4(3):84-90.

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#### **BOOKS AUTHORED/BOOKS EDITED**

Davies BL, Joscowicz L, Murphy SB Eds. Computer Assisted Orthopaedic Surgery. Berlin: Pro Business GmbH. 2009 (ISBN: 978-1-59594-313-2)

#### **PUBLISHED ABSTRACTS**

Murphy SB, Walker PS. Adaptation of the human femur to an Austin Moore prosthesis. National Student Research Forum Abstracts, Galveston, April, 1982.

Murphy SB, Walker PS. Adaptive changes in the femur following prosthesis implantation. Annual Conference of Engineering in Medicine and Biology Abstracts, Philadelphia, September, 1982.

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Keaveny TK, Jalszynski RL, Murphy SB. The Importance of Stresses in the Etiology of Slipped Capital Femoral Epiphysis. Thirty-ninth Annual Meeting, Orthopedic Research Society. 1993.

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Millis MB, Murphy SB, Poss RP. Middle-Term Results of Periacetabular Osteotomy for Acetabular Dysplasia in the Adolescent and Young Adult. American Academy of Orthopedic Surgeons. 1996; 135.

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Murphy AC, Casey P, Gulczynski D, Murphy SB. Computer-Assisted, Tissue-Preserving THR with Early Mobilization: Impact on Length of Stay, Disposition, and Complications. International Society for Computer Assisted Orthopedic Surgery. Seoul, Korea. 2012.

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Murphy WS, Steppacher SD, Murphy SB. Clinical Accuracy of the HipSextant Navigation System: Multiuser Experience. International Society for Computer Assisted Orthopedic Surgery. Seoul, Korea. 2012.

Variation in Supine Pelvic Tilt in Patients Undergoing Total Hip Arthroplasty. International Society for Computer Assisted Orthopedic Surgery. Seoul, Korea. 2012.

Murphy WS, Klingenstein G, Murphy SB, Zheng G. The Effect of Total Hip Arthroplasty on Pelvic Tilt. International Society for Computer Assisted Orthopedic Surgery. Seoul, Korea. 2012.

Werner SD, Murphy WS, Talmo C, Ward D, Murphy SB. Association of Adverse Local Tissue Reaction with a Beta-Titanium Modular Neck Prosthesis. Summer Meeting of the Hip Society. Rochester, Minnesota. 2012.

Murphy WS, Werner SD, Kowal JH, Murphy SB. The Safe Zone for Acetabular Component Orientation. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

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Murphy W, Casey D, Gulczynski D, Murphy SB. The Impact of Surgical Exposure on Length of Stay Following Total Hip Arthroplasty. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

Murphy W, Steppacher S, Kowal J, Murphy S. Registration and Tracking Accuracy of the HipSextant Navigation System. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

Steppacher S, Tannast M, Murphy S. Absence of Osteolysis in Uncemented Alumina Ceramic on Ceramic THA in Patients Under 50 Years After Two to 14 Years. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

Murphy A, Casey D, Gulczynski D, Murphy S. Computer-Assisted, Tissue-Preserving THA with Early Mobilization: Impact on Length of Stay, Disposition, and Complications. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

Murphy W, Gulczynski D, Bode R, Murphy S. The Impact of Pre-Emptive Autologous Blood Transfusion on Length of Stay following Total Hip Arthroplasty. 25th Annual Congress of the International Society for Technology in Arthroplasty, Sydney, Australia, 2012.

#### **INVITED LECTURES (2007 to Present)**

2007 Open Scientific Meeting of the Hip Society, San Diego: Surgical Navigation for Hip Arthroplasty.

2007 The Great Debate: Early Intervention in the Hip and Knee. Imperial College, London

- Surgical Navigation for Hip Arthroplasty
- Long-term Results of Periacetabular Osteotomy for the Treatment of Hip Dysplasia
- Superior Capsulotomy for Tissue-Preserving Total Hip Arthroplasty

2007 The Bernese Hip Symposium, University of Bern, Bern, Switzerland

- Femoroacetabular Impingement: Diagnosis and Radiographic Assessment
- Tissue-Preserving Total Hip Arthroplasty using a Superior Capsulotomy

2007 American Academy of Orthopedic Surgeons. San Diego, California. Instructional Course Lecture 342: Controversies in treating the young adult hip patient.

2007 Twelfth Congress of AMECRA, Acapulco, Mexico

- Joint Preserving Surgery of the Hip: Open vs Arthroscopic
- Minimally Invasive Techniques for Total Hip Arthroplasty

2007 9<sup>th</sup> Annual Conference of the Asia Pacific Arthroplasty Society, Mumbai, India

- Validity of reproducing normal knee kinematics in total knee arthroplasty, Debate
- Computerization and the finer art of knee balancing, Instruction Course Lecture
- 10-year results of ceramic-ceramic total hip arthroplasty in developmental dysplasia of the hip

2007 Current Concepts in Joint Replacement, Orlando, Florida

- Orthopedic Crossfire: The Squeaking Hip; A Cause for Concern. Debate
- Managing Leg Length and Stability in Total Hip Arthroplasty: The role of the modular neck
- The Superior Capsulotomy: A minimally invasive technique for total hip arthroplasty

2008 American Academy of Orthopedic Surgeons. San Francisco, California. Instructional Course Lecture 241: Controversies in Treating the Young Adult Hip Patient. Joint Preserving vs Joint Replacing Surgery in Developmental Dysplasia of the Hip: Who Gets What?

2008 The Bernese Hip Symposium, University of Bern, Bern, Switzerland

- Morphology and Biomechanics of the Hip: Pre-arthrotic deformities of the proximal femur
- Treatment of Femoroacetabular Impingement: Computer-assisted Arthroscopic Surgery
- Femoroacetabular Impingement Surgery: Mid-term Results from Boston

- Resurfacing Hip Arthroplasty: Why not to perform hip resurfacing
- 2008 Current Concepts in Joint Replacement, Las Vegas, Nevada
- Hip Arthroscopy: What it does and doesn't do
  - The role of the modular neck in primary THA: Rotating to success
  - Superior capsulotomy: A MIS technique for THR
- 2008 Summer Meeting of The Hip Society, Chicago, Illinois
- Outcome of ceramic-ceramic total hip arthroplasty at 2 to 11 years of in patients with developmental dysplasia of the hip
- 2008 International Society for Technology in Arthroplasty, Seoul, Korea, Invited Lectures
- Clinical Experience with the Ceramic on Ceramic Articulation in THR in the USA
  - Avoiding Complications in the Use of the Ceramic on Ceramic Articulation: Pearls and Pitfalls
- 2008 Current Concepts in Joint Replacement, Orlando, Florida
- Orthopedic Crossfire: Ceramic-Ceramic Total Hip Arthroplasty. Debate
  - The Superior Capsulotomy: A minimally invasive technique for total hip arthroplasty
- 2009 AO Symposium on Surgical Preservation of the Hip, Lake Tahoe, California
- Aspects of Development Dysplasia of the Hip affecting prognosis
- 2009 American Academy of Orthopedic Surgeons, Instructional Course Lecture Series.
- Controversies in Joint Preserving Hip Surgery: Factors to consider when recommending joint preserving surgery.
- 2009 Bioceramics and Alternative Bearings in Joint Arthroplasty. Edinburgh, Scotland. Presidential Symposium: Promise for a Successful Surgery
- Alumina Ceramic-on-Ceramic THA in Patients 50 Years and Younger.
- 2009 Summer Meeting of the Hip Society, Palo Alto, California.
- The Hip Sextant: A Mechanical Navigation Device for Acetabular Component Positioning
- 2009 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty. Big Island, Hawaii. Symposium on Bearings and Materials in Knee and Hip Arthroplasty
- Proper Implantation of Ceramic-Ceramic Bearing Couples in Hip Arthroplasty
- 2009 American Association of Hip and Knee Surgeons Symposium: Reliability of Ceramic Components in Total Hip Arthroplasty. Dallas, Texas. Clinical Reliability of Ceramic Components in Total Hip Arthroplasty
- 2009 4<sup>th</sup> Annual Meeting of the British Society for Computer Assisted Orthopedic Surgery, London, UK
- The Evolution from Optical Tracking to Smart Mechanical Instruments
  - Experience with Acetabular Component Alignment using CT-based Jigs

- 2009 Current Concepts in Joint Replacement, Orlando, Florida
- Femoral Neck Modularity in Total Hip Arthroplasty
  - The Hip Sextant: Navigating Acetabular Cup Placement
- 2010 The Bernese Hip Symposium, University of Bern, Bern, Switzerland
- Various Approaches for Arthroplasty of the Hip
  - The Problems of Hip Resurfacing Arthroplasty
- 2010 The Hip Society. Thirty-Eighth Open Meeting  
Issues in Primary THR-Best Practice. Panel Discussion.
- 2010 12<sup>th</sup> Meeting of the Combined Orthopedic Associations, Glasgow, Scotland.  
Symposium on Computer Assisted Surgery: Evolution to Smart Mechanical  
Instrumentation for Hip Navigation
- 2010 International Concepts in Joint Replacement 2010 Eleventh Annual ISK Institute Sports Medicine  
and Total Knee and Hip Meeting. New York, New York.  
Improving Surgical Accuracy for Total Hip Arthroplasty and Hip Resurfacing
- 2010 Computer-Assisted Surgery: Review of Emerging Technologies. Hospital for Special Surgery, New  
York, New York. Improving Acetabular Component Positioning in Hip Arthroplasty
- 2010 Research Triangle Park Orthopaedic Society, Durham, NC:  
Evolution of Hip Arthroplasty: Improving Surgical Precision and Outcome at 10 years  
Rehabilitation
- 2010 Duke University Medical Center Orthopedic Grand Rounds:  
Soft Tissue Preservation and Accelerated Rehabilitation in Total Hip Arthroplasty
- 2010 Summer Meeting of the Hip Society, New York, New York:  
Patient-Specific Mechanical Navigation of Acetabular Component Orientation Based on  
Conventional Radiography
- 2010 International Congress for Joint Reconstruction, New York, New York: Total Hip Arthroplasty  
using the Superior Capsulotomy Technique and Surgical Navigation of Hip Arthroplasty and Hip  
Resurfacing.
- 2010 American Association of Hip and Knee Surgeons. Symposium on Alternative Bearings at 10 Years:  
10 year outcomes of alumina ceramic-ceramic bearings in total hip arthroplasty.
- 2010 Current Concepts in Joint Replacement, Orlando, Florida
- Debate: Femoral Neck Modularity in Total Hip Arthroplasty
  - The Hip Sextant: Navigating Acetabular Cup Placement
- 2011 American Academy of Orthopedic Surgeons Instructional Course TIC484: Limited Incision and  
Less Invasive Surgical Approaches for Total Hip Arthroplasty

- 2011 Current Concepts in Joint Replacement, Las Vegas, Nevada
- Femoral Neck Modularity: A time and a place
  - The Hip Sextant: Navigating Acetabular Cup Placement
- 2011 Eastern Orthopedic Association, Richmond, Virginia
- Update on Bearing Surfaces in Total Hip Arthroplasty
  - Computer Assisted Total Joint Arthroplasty – Current Concepts and New Techniques
- 2011 12<sup>th</sup> Annual ISK Insitute Sports Medicine and Total Knee and Hip Course, New York, New York
- Navigation to Optimize Cup Placement
  - Bearing Surfaces in THR: Ceramic-Ceramic
- 2011 55<sup>th</sup> Annual Edward T. Smith Orthopedic Lectureship Symposium. The University of Texas Health Science Center at Houston. Hip and Knee: Joint Preservation and Arthroplasty Hot Topics and Controversies.
- 2011 Current Concepts in Joint Replacement, Orlando, Florida
- Femoral Neck Modularity: Is there a time and a place?
  - Panel: Performing a Primary Hip Arthroplasty
- 2012 Improving Total Hip Arthroplasty: Focus on Tissue Preservation and Component Placement. Northwestern Orthopedic Grand Rounds. Chicago, Illinois.
- 2012 The HipSextant. Symposium on Acetabular Component Positioning: The Achilles Heel of Total Hip Arthroplasty. The Open Scientific Meeting of the Hip Society. San Francisco, California.
- 2012 Tissue-preserving Total Hip Arthroplasty using the Superior Capsulotomy: Indications, Techniques, and Results. American Academy of Orthopedic Surgeons Instructional Course TIC386: Limited Incision and Less Invasive Surgical Approaches for Total Hip Arthroplasty
- 2012 The Bernese Hip Symposium, University of Bern, Bern, Switzerland
- Combined Femoroacetabular Impingement: When to Trim the Rim.
  - Femoroacetabular Impingement Treatment: 10 Years ago and today.
- 2012 Improving Total Hip Arthroplasty: Focus on Tissue Preservation and Component Placement. Henry Ford Hospital Orthopedic Grand Rounds. Detroit, Michigan.
- 2012 The HipSextant: Concept and Results. British Society for Computer Assisted Orthopedic Surgery. Glasgow, Scotland.
- 2012 Clinical Results of Ceramic-Ceramic THA in Young Patients. 14<sup>th</sup> BioloX International Symposium on Total joint Replacement: The Experts Provide the Evidence. Las Vegas, Nevada.
- 2012 Thirteen Annual Current Concepts in Joint Replacement, Las Vegas, Nevada
- Femoral Neck Modularity. A Bridge Too Far. Opposes.
  - Navigating Acetabular Cup Placement: Assuring Outcomes.

- 2012 Evolution of Smart Mechanical Navigation for Hip Arthroplasty. Niigata Hip Joint Center, Kameda Daiichi Hospital, Niigata, Japan.
- 2012 Thirty-First Annual Current Concepts in Joint Replacement, Orlando, Florida
- Femoral Neck Modularity. A Bridge Too Far. Opposes.
  - Optimizing Acetabular Cup Placement; The Elusive Home Run of THA. The HipSextant: Smart Instrument Alignment
  - Removing Well-Fixed Cementless Components: Tips of the Trade.
- 2013 Combined Orthopedic and BioMedical Engineering Grand Rounds, The University of British Columbia, Vancouver, Canada. The HipSextant Project: Medical Device Development from Initial Concept to Clinical Implementation
- 2013 Pediatric Orthopedic Grand Rounds. Vancouver Children's Hospital, Vancouver, Canada. Update on Joint Preserving Surgery of the Hip.
- 2013 International Congress in Joint Replacement, Napa, California
- Acetabular Alignment: Smart Mechanical Navigation - Always
  - Approaches in THA: The Superior Capsulotomy Technique and My Perioperative Management Strategies
  - The Dislocating Hip: When I Decide to Perform an Acetabular Revision
- 2013 Did I do Grand Rounds at NEBH?
- 2013 The Summer Meeting of the Hip Society. Charleston, SC. A New Look at the Safe Zone for Acetabular Component Orientation.
- 2013 Thirtieth Annual Current Concepts in Joint Replacement, Orlando, Florida
- Hip and Knee Arthroplasty 2013: What's New, What's True, Does it Matter: Evidence Based Issues.
  - Orthopedic Crossfire: Controversial Issues in Hip Arthroplasty. Ceramic on Ceramic Bearings in the Young Patient: A New Standard Emerging.
  - Hip Joint Preservation. Avoiding Arthroplasty: Understanding the Pathologies.
- 2014 The Hip Society Rothman Ranawat Travelling Fellows Symposium, Massachusetts General Hospital. Accuracy of Cup Orientation Measurement Using A Simultaneous Bi-Plane Imaging System.
- 2014 Fifteen Annual Current Concepts in Joint Replacement, Las Vegas, Nevada
- Ceramic on Ceramic Total Hip Arthroplasty: An Enduring Solution.
  - Hip Joint Preservation: Avoiding Arthroplasty.
- 2014 Debate: HipSextant vs Traditional Navigation for Total Hip Arthroplasty. International Society for Computer-Assisted Orthopedic Surgery, Milan
- 2014 Tribology Science and Practice. Hallym University Dongtan Sacred Heart Hospital. Seoul, Korea.

- Long Term Experience with Ceramic-on-Ceramic Bearings in the USA
  - Can Component Positioning for Hard on Hard Bearings be Optimized?
- 2014 Thirty-First Annual Current Concepts in Joint Replacement, Orlando, Florida
- Smart Mechanical Navigation Optimizes Alignment.
  - Orthopedic Crossfire: Superior Capsulotomy: The Ideal Approach for THA
  - Hip Joint Preservation. Avoiding or Deferring Arthroplasty.
- 2015 Orthopedic Technology Symposium, The University of Vermont. Smart Mechanical Navigation of Hip Replacement.
- 2015 Annual Meeting of the National Association of Orthopedic Nurses, Las Vegas, Nevada. Improved Planning and Precision of Reconstructive Hip and Knee Surgery.
- 2015 The Hip Society Rothman Ranawat Travelling Fellows Symposium, Massachusetts General Hospital. Economic Benefits of Combined Tissue Preservation and Smart Mechanical Navigation in Total Hip Arthroplasty.
- 2015 Fifteen Annual Current Concepts in Joint Replacement, Las Vegas, Nevada
- Orthopedic Crossfire: Ceramic on Ceramic THA in Patient <60: A New Standard.
  - What would you do? Challenges in Hip Surgery
  - Acetabular Cup Placement: The Elusive Home Run of THA
  - Hip Joint Preservation. Avoiding or Deferring Arthroplasty.
- 2015 The Summer Meeting of the Hip Society, Sonoma, CA: Effect of Surgical Technique on Reducing Total Cost in Primary Hip Arthroplasty: A Study of Medicare Payment Data
- 2015 American Association of Hip and Knee Surgeons. Symposium V The future is here: Bundled Payments and ICD-10. The Physician as the Provider at Risk: Rolling the Dice.
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Murphy SB, Ecker T, Tannast M. Incidence of squeaking following alumina ceramic-ceramic total hip arthroplasty. *American Association of Hip and Knee surgeons*. 2007.

Ecker TM, Tannast M, Murphy SB, Kubiak-Langer M, Langlotz F, Siebenrock K., Puls M. Femoro-Acetabular Impingement: A New Computerized Method for 3D-Analysis and Virtual Debridement. *Proceedings of the American Academy of Orthopedic Surgeons*. p. 421, 2007.

Murphy SB, Ecker TM, Tannast M, Bierbaum BE, Garino JP, Howe JG, Hume EL, Jones RE, Keggi KJ. Alumina Ceramic-Ceramic Total Hip Arthroplasty: the US-Experience from an FDA/IDE Multicenter Study. *Proceedings of the American Academy of Orthopedic Surgeons*. P 425, 2007.

Murphy SB, Ecker TM. Introduction of a New Computer-assisted Method of Intraoperative Leg Length Measurement in THA. *Proceedings of the American Academy of Orthopedic Surgeons*. p 428, 2007.

Murphy SB, Ecker TM, Tannast M. Why perform total hip arthroplasty using surgical navigation. *Computer-Assisted Orthopedic Surgery-International*. 2007

Murphy SB, Ecker TM. Arthroscopic Percutaneous Computer-Assisted FAI Relief Using a New Method of CT-Fluoro Registration. *Computer-Assisted Orthopedic Surgery-International*. 2007

Ecker TM, Tannast M, Puls M, Siebenrock KA, Murphy SB. Etiology of Osteoarthritis of the Hip Joint – Pathomorphologic Findings and Prearthrotic Deformities. *Computer-Assisted Orthopedic Surgery-International*. 2007.

Murphy SB, Ecker TM. Computer Assisted Hip Arthroplasty – Reasons To Navigate. *Computer-Assisted Orthopedic Surgery-International*. 2007.

Murphy SB, Ecker TM. Reliability and Reproducibility of a Simplified Leg Length Measurement Algorithm in Hip Arthroplasty. *Computer-Assisted Orthopedic Surgery-International*. 2007.

Nadzadi ME, Ecker TM, Lang J, Murphy SB. Leg Length Change Due to Total Knee Arthroplasty. Computer-Assisted Orthopedic Surgery-International. 2007.

Nadzadi ME, Ecker TM, Murphy SB. Kinematics and Ligamentous Stability of Passive Knees Measured Pre and Post Surgical Intervention by a Novel Navigation System. Computer-Assisted Orthopedic Surgery-International. 2007.

Ecker T, Murphy S. Prearthrotic Pathomorphologic Alterations of the Hip Joint Predicting Subsequent Osteoarthritis. New England Orthopedic Society. 2007.

Murphy S, Ecker T. The Occurrence of the Squeaking Phenomenon in Total Hip Arthroplasty Using Alumina Ceramic-on-Ceramic Bearings. New England Orthopedic Society. 2007.

Squeaking poster aahks

Nadzadi M, Nielsen J, Ecker TM, Lang JE, Murphy SB. Assessment of Leg Length change due to total knee arthroplasty. Proceedings of the American Academy of Orthopedic Surgeons, 2008.

Lang JE, Lonner JH, Murphy SB, Whiddon DR, Salyapongse AK, Smith EL, Bono JV, Scott RD. Limb lengthening is a common consequence of total knee arthroplasty. Proceedings of the American Academy of Orthopedic Surgeons, 2008. P 485.

Murphy SB, Nadzadi M, Nielsen J, Ecker TM, Lang JE. Assessment of Leg Length Change due to Total Knee Arthroplasty. Proceedings of the American Academy of Orthopedic Surgeons, 2008. P 490.

Steppacher SD, Ecker TM, Murphy SB. Outcome of Ceramic-Ceramic Total Hip Arthroplasty in Patients with Developmental Dysplasia of the Hip. Proceedings of the Summer Meeting of the Hip Society. 2008

Ecker M, Steppacher SD, Haimerl M, Murphy SB: Computer-Assisted Intraoperative Measurement of Leg Length in Total Hip Arthroplasty: An Accurate and Simple Method. Computer-Assisted Orthopedic Surgery-International. 2008.

Klingenstein G, Eckman K, Jaramaz B, Murphy SB. Pelvic tilt before and after total hip arthroplasty. Computer-Assisted Orthopedic Surgery-International. 2008.

M. Tannast, M. Röthlisberger, S. Gathmann, S.D. Steppacher, S.B. Murphy, F. Langlotz, K.A. Siebenrock: The Interrelationship among Different Reference Coordinate Systems of the Pelvis – A Computer Assisted Anatomical Study. Computer-Assisted Orthopedic Surgery-International. 2008.

Chow JC, Eckmann K, Jaramaz B, Murphy SB. Evaluation of intraoperative pelvic positioning using software-based computed tomography/radiography matching. Computer-Assisted Orthopedic Surgery-International. 2008.

Steppacher SD, Ecker TM, Tannast M, Murphy SB: Clinical experience with the ceramic on ceramic articulation in THR in the USA. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.

Ecker TM, Robbins C, van Flandern G, Patch D, Steppacher S, Bierbaum B, Murphy SB: Avoiding complications in the use of the alumina ceramic on ceramic articulations: pearls and pitfalls. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.

Steppacher SD, Ecker TM, Murphy SB: Outcome of Ceramic-Ceramic Total hip Arthroplasty at Two to Ten Years in Patients with Developmental Dysplasia of the Hip. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.

Steppacher SD, Tannast M, Zheng G, Zhang X, Kowal Jens, Murphy SB: HipMatch: A 2D-3D Matching Software – Accurate and Reliable. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.



Murphy SB, Chow JC, Eckman K, Jaramaz B. Evaluation of Intraoperative Pelvic Position during Hip Arthroplasty using Computed Tomography/Radiography Matching. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.

Klingenstein G, Eckman K, Jaramaz B, Murphy SB: Pelvic Tilt Before and After Total Hip Arthroplasty. Proceedings of the 21<sup>st</sup> Annual Meeting of the International Society for Technology in Arthroplasty, Seoul, Korea. 2008.

Chow JC, Eckmann K, Jaramaz B, Murphy SB. Evaluation of intraoperative pelvic positioning using software-based computed tomography/radiography matching. 39<sup>th</sup> Annual Meeting of the Eastern Orthopedic Association, 2008.

Stappacher SD, Tannast M, Zheng G, Zhang X, Kowal J, Anderson S, Siebenrock KA, Murphy SB. Accuracy and Reliability of Measuring Acetabular Component Orientation using 2D-3D Matching. 10<sup>th</sup> EFFORT Congress, Vienna, Austria. 2009.

Chow JC, Eckmann K, Jaramaz B, Murphy SB. Evaluation of intraoperative pelvic positioning using software-based computed tomography/radiography matching. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Puls M, Ecker TM, Steppacher SD, Murphy SB, Kowal JH, Siebenrock KA, Tannast M. Prediction of impingement-free range of motion in Legg-Calve-Perthes disease – an experimental pilot study. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Klingenstein GG, Murphy SB, Jaramaz B, Eckman K. Pelvic tilt remains consistent after total hip arthroplasty. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Stappacher SD, Tannast M, Zheng G, Zhang X, Kowal J, Anderson SE, Siebenrock KA, Murphy SB. Validation of a new method for determination of cup orientation using 2D/3D matching. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Murphy SB, Steppacher SD, Kowal J. The Hip Sextant: Navigation of acetabular component orientation using a mechanical instrument. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Stappacher SD, Tannast M, Kowal J, Zheng G, Siebenrock KA, Murphy SB. Accuracy of CT-based computer-assisted total hip arthroplasty. Computer-Assisted Orthopedic Surgery-International. Boston, 2009.

Ecker TM, Robbins C, van Flandern G, Patch D, Steppacher SD, Kurtz W, Bierbaum BE, Murphy SB. Association between squeaking and implant design and material in ceramic-ceramic total hip arthroplasty. 40<sup>th</sup> Annual Meeting of the Eastern Orthopedic Association. Bahamas, 2009

Stappacher SD, Kurtz W, Ecker TM, Tannast M, Murphy SB. Outcome of ceramic-ceramic total hip arthroplasty in patients younger than 50 years. 40<sup>th</sup> Annual Meeting of the Eastern Orthopedic Association. Bahamas, 2009

Stappacher SD, Kurtz W, Ecker TM, Tannast M, Murphy SB. Outcome of ceramic-ceramic total hip arthroplasty in patients with developmental dysplasia of the hip. 40<sup>th</sup> Annual Meeting of the Eastern Orthopedic Association. Bahamas, 2009

Stappacher SD, Kurtz W, Ecker TM, Tannast M, Murphy SB. Prospective comparison of total hip arthroplasty performing using conventional and tissue-preserving techniques: a minimum 2-year outcome study. 40<sup>th</sup> Annual Meeting of the Eastern Orthopedic Association. Bahamas, 2009

Murphy SB, Steppacher SD, Kowal J. The Hip Sextant: Navigation of acetabular component orientation using a mechanical instrument. Summer Meeting of the Hip Society, Palo Alto, California. 2009

Steppacher SD, Kurtz W, Ecker TM, Tannast M, Murphy SB. Outcome of ceramic-ceramic total hip arthroplasty in patients younger than 50 years. 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty. Big, Island, Hawaii, 2009

Chow JC, Eckmann K, Jaramaz B, Murphy SB. Evaluation of intraoperative pelvic positioning using computed tomography/radiography matching. . 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty, Big, Island, Hawaii, 2009

Steppacher SD, Kurtz W, Ecker TM, Tannast M, Murphy SB. Outcome of ceramic-ceramic total hip arthroplasty in patients with developmental dysplasia of the hip. 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty, Big, Island, Hawaii, 2009

Murphy SB, Steppacher SD, Kowal J. The Hip Sextant: Navigation of acetabular component orientation using a mechanical instrument. 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty, Big, Island, Hawaii, 2009

Steppacher SD, Tannast M, Kowal J, Zheng G, Murphy SB. Accuracy of CT-based computer-assisted total hip arthroplasty. 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty, Big, Island, Hawaii, 2009

Ecker TM, Robbins C, Van Flandern G, Patch D, Steppacher SD, Bierbaum BE, Murphy SB. Association between squeaking and implant design and material in ceramic-ceramic total hip arthroplasty. 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty, Big, Island, Hawaii, 2009

Klingenstein G and Murphy SB. Acetabular Morphology and the Progression of Coxarthrosis. American Academy of Orthopedic Surgeons. 2010

Steppacher SD, Kowal JH, Murphy SB. The HipSextant: Navigation of Acetabular Cup Orientation for Hip Arthroplasty In: Davies BL, Joskowicz L, Merloz P Eds. Computer Assisted Orthopaedic Surgery. 10<sup>th</sup> Annual Meeting of CAOS-International. Berlin: Pro Business Gmbh. 2010:36-38.

Zheng G, Steppacher SD, Nolte LP, Murphy SB, Tannast M. Measuring Pelvic Tilt and Rotation Using 2D/3D Matching: A validation study. In: Davies BL, Joskowicz L, Merloz P Eds. Computer Assisted Orthopaedic Surgery. 10<sup>th</sup> Annual Meeting of CAOS-International. Berlin: Pro Business Gmbh. 2010:290-293.

Steppacher SD, Tannast M, Kowal JH, Zheng G, Murphy SB. Accuracy of CT-based Computer Assisted Total Hip Arthroplasty. In: Davies BL, Joskowicz L, Merloz P Eds. Computer Assisted Orthopaedic Surgery. 10<sup>th</sup> Annual Meeting of CAOS-International. Berlin: Pro Business Gmbh. 2010:412-414.

Klingenstein G and Murphy SB. Is Pincer Impingement Associated with Osteoarthritis? In: Davies BL, Joskowicz L, Merloz P Eds. Computer Assisted Orthopaedic Surgery. 10<sup>th</sup> Annual Meeting of CAOS-International. Berlin: Pro Business Gmbh. 2010:542-544.

**Charitable Interests:**

Project Perfect World Foundation: Joint preserving surgery on children and young adults with rickets, Blount's disease, and hip dysplasia. Guayaquil, Ecuador September, 2000; September, 2002; and March, 2005.

**Major Clinical Interests:**

Joint preserving surgery of the hip and knee  
Surgical Navigation/Computer-assisted reconstructive surgery of the hip and knee  
Tissue-preserving, minimally-invasive surgery of the hip and knee

**Teaching Experience and Invited Lectures:**

- 1989 American Academy of Orthopedic Surgeons, Las Vegas, Nevada. Instructional Course Lecture Series: Osteotomy of the Hip.
- 1990 Conference leader and weekly lecturer on clinical topics to residents and medical students in orthopedic surgery, Children's Hospital, Boston.
- 1990 Maurice E. Muller Institute Symposium on Digital Imaging in Orthopedic Surgery, St. Petersburg, Florida.
- 1990 Lecturer, American Orthopedic Association, Boston.
- 1990 Osteotomy of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Anaheim, California.
- 1991 Combined Orthopedic Grand Rounds, Brigham and Women's Hospital, Boston: Pelvic and Femoral Osteotomy in the Treatment of Hip Deformity.
- 1991 Osteotomy of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, New Orleans, Louisiana.

- 1991 Bone Grafts in Revision Total Knee Surgery, Sixth Annual Boston Knee Symposium, Boston, Massachusetts.
- 1991 Orthopedic Grand Rounds, New England Medical Center, Boston: The Role of Osteotomy Surgery in the Treatment of the Painful Hip.
- 1991 Orthopedic Grand Rounds, St. Joseph's Medical Center, Worcester: The Role of Osteotomy Surgery in the Treatment of the Painful Hip.
- 1991 Primary Care Rounds, Beth Israel Hospital, Boston: Diagnosis and Treatment of Arthritis of the Hip and Knee.
- 1992 Medical Grand Rounds, Milford Hospital, Milford, MA: Diagnosis and Management of Arthritis of the Hip and Knee.
- 1992 Osteotomy of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Washington, D.C.
- 1992 Robert Breck Brigham Arthritis Rounds, Brigham and Women's Hospital: Intertrochanteric Osteotomy for the Treatment of Diseases about the Hip.
- 1992 Surgery of the Pelvis and Acetabulum: An International Consensus. Pittsburgh, Pennsylvania. 6 year Follow-up of Acetabular Osteotomy for Hip Dysplasia.
- 1992 Bone transplantation for Bone Stock Deficiency in Total Hip Replacement. 6th Annual Meeting of the International Society for the Study of Custom Prostheses. Windsor, England.
- 1993 Osteotomy of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Washington, D.C.
- 1993 Orthopedic Grand Rounds, New England Baptist Hospital: Osteotomy of the Acetabulum.
- 1993 Combined Orthopedic Grand Rounds, Brigham and Women's Hospital, Boston: Osteotomy of the Hip.
- 1993 Orthopedic Grand Rounds, University of Massachusetts Medical Center, Worcester: Surgical Exposures of the Hip Joint.
- 1993 Combined Orthopedic Grand Rounds, Brigham and Women's Hospital, Boston: Surgical Approaches to the Hip and Pelvis.
- 1994 Orthopedic Grand Rounds, New England Baptist Hospital, Boston: Surgical Approaches to the Hip and Pelvis.
- 1994 Robert Breck Brigham Arthritis Rounds, Brigham and Women's Hospital, Boston: Is there a Role for Primary Uncemented Total Hip Replacement in Young, High Demand Patients?
- 1994 Osteotomy of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, New Orleans.
- 1994 Osteotomy of the Hip and Knee, Harvard Medical School Continuing Education Course: Surgical Exposures to the Pelvis and Femur for Joint Preserving Surgery about the Hip.
- 1994 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: The Modified Transgluteal Approach with Trochanteric Medallion and Preservation of the Capsule for Hip Replacement and Hip Preserving Surgery.

- 1994 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: The Prognosis of Untreated Hip Dysplasia: Factors Predicting Long-Term Outcome.
- 1994 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: Moderator, Live Surgical Demonstration of Revision Total Hip Replacement.
- 1994 Masters of Interactive Visualization, Clemson University, Clemson, SC: Mechanical Analysis and Simulation of Pelvic Osteotomy.
- 1994 Geriatric Grand Rounds, Beth Israel Hospital, Boston: Indications for and Planning of Primary and Revision Joint Reconstruction in the Elderly.
- 1994 Orthopedic Grand Rounds, New England Baptist Hospital, Boston: Prosthetic Choice & Options.
- 1995 Combined Orthopedic Grand Rounds, Brigham and Women's Hospital, Boston: Cost Control in Total Joint Arthroplasty.
- 1995 Surgical Exposures for Femoral Osteotomy and Joint Preserving Surgery of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Orlando.
- 1995 Surgical Exposures for Pelvic Osteotomy and Joint Preserving Surgery of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Orlando.
- 1995 The Prognosis of Untreated Dysplasia of the Hip. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Orlando.
- 1995 Technique of Acetabular Redirection Osteotomy for Hip Dysplasia. Live Video Demonstration. Instructional Course Lecture Series. American Academy of Orthopedic Surgeons, Orlando.
- 1995 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: The Modified Transgluteal Approach for Hip Replacement and Hip Preserving Surgery.
- 1995 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: Moderator, Live Surgical Demonstration of Primary Hip Replacement.
- 1995 Berne Hip Symposium, Maurice E. Müller Institute, Berne, Switzerland: Stress Distribution in Dysplastic Hips.
- 1995 Boston Biomechanics Seminar: The Prediction of Hip Joint Contact Pressures in Dysplastic Hips Before and After Surgical Reconstruction.
- 1995 Orthopedic Grand Rounds, New England Baptist Hospital: Progress in the Evaluation and Treatment of Hip Dysplasia.
- 1995 Combined Orthopedic Grand Rounds, Brigham and Women's Hospital, Boston: The Role of Acetabular Redirection Osteotomy to Prevent Osteoarthritis of the Dysplastic Hip.
- 1995 Computer-aided Orthopedic Surgery Symposium, Bern, Switzerland. Moderator, Live surgical demonstration of acetabular redirection osteotomy using computer-aided intra-operative guidance.
- 1996 American Academy of Orthopedic Surgeons, Atlanta. Evaluation and Planning of Joint Preserving Surgery of the Hip. Instructional Course Lecture Series.
- 1996 American Academy of Orthopedic Surgeons, Atlanta. Technique of Valgus-Extension Intertrochanteric Osteotomy for the Osteoarthritic Hip. Live Video Demonstration. Instructional Course Lecture Series.

- 1996 American Academy of Orthopedic Surgeons, Atlanta. Evaluation and Treatment of Hip Dysplasia. Instructional Course Lecture Series.
- 1996 American Academy of Orthopedic Surgeons, Atlanta. Technique of Acetabular Redirection Osteotomy for Hip Dysplasia. Live Video Demonstration. Instructional Course Lecture Series.
- 1996 Second Computer-Assisted Orthopedic Surgery Symposium. Maurice E. Muller Institute for Biomechanics. University of Bern, Switzerland. Computer-Assisted Periacetabular Osteotomy. .
- 1996 Orthopedic Grand Rounds, New England Baptist Hospital. Joint Preserving Surgery of the Hip.
- 1997 Orthopedic Grand Rounds, Brown University Rhode Island Hospital. Joint Preserving Surgery of the Hip.
- 1997 Orthopedic Grand Rounds, Tufts-New England Medical Center. Non-Prosthetic Surgery of the Hip.
- 1997 American Academy of Orthopedic Surgeons, New Orleans. Osteotomies About the Hip for the Prevention and Treatment of Osteoarthritis: Surgical Planning and Technical Considerations for Intertrochanteric and Pelvic Osteotomy-Course #115
- 1997 American Academy of Orthopedic Surgeons, New Orleans. Osteotomies About the Hip for the Prevention and Treatment of Osteoarthritis: Surgical Planning and Technical Considerations for Intertrochanteric and Pelvic Osteotomy-Course #135
- 1997 Computer Assisted Orthopedic Surgery CAOS/USA, Pittsburg, PA. Applications of Computer –Aided Surgery of Pelvic Osteotomy for Dysplastic Hips.
- 1997 Orthopedic Grand Rounds, New England Baptist Hospital, Boston, Ma. Osteotomy of the Hip
- 1997 Orthopedic Grand Rounds, Brigham and Women’s Hospital, Boston, Ma. Non-Prosthetic Reconstruction of the Hip.
- 1998 Computer Assisted Orthopedic Surgery CAOS/USA, Pittsburg, PA. Applications of Computer –Aided Surgery of Pelvic Osteotomy for Dysplastic Hips.
- 1998 Orthopedic Grand Rounds, Brigham and Women’s Hospital, Boston, Ma. Total Hip Arthroplasty in Young, High-Demand Patients.
- 1998 Second International Meeting in Orthopedics, Hospital De Especialidades, Guadalajara, Mexico:
  - Preoperative Planning and Surgical Exposure for Periacetabular Osteotomy
  - Techniques and Results of Periacetabular Osteotomy
  - Diagnosis and Management of the Torn Acetabular Labrum
  - Total Hip Arthroplasty in Young Patients
- 1998 American Academy of Orthopedic Surgeons, New Orleans. Osteotomies and Other Joint-Preserving Procedures About the Hip for the Prevention and Treatment of Osteoarthritis: Principles, Clinical Analysis and Treatment Selection. Course # 213
- 1998 American Academy of Orthopedic Surgeons, New Orleans. Osteotomies About the Hip for the Prevention and Treatment of Osteoarthritis: Surgical Planning and Technical Considerations for Intertrochanteric and Pelvic Osteotomy. Course # 235.
- 1998 Orthopedic Grand Rounds, New England Medical Center, Boston, Ma. Joint Preserving Surgery of the Hip.
- 1998 Debridement of the Hip for Impingement-related Osteoarthopathy. Maurice Muller Institute,

University of Bern, Bern, Switzerland.

- 1998 Mechanical Analysis of Hip Dysplasia and Clinical Results of Pelvic Osteotomy for Hip Dysplasia. The Invalid Foundation and Hospital, Helsinki, Finland.
- 1999 Core Curriculum Lecture, Harvard Combined Orthopedic Residency. Joint Preserving Surgery of the Hip and Pelvis.
- 1999 Current Techniques in Total Joint Replacement. University of West Virginia (Kiawah, S.C.)
- Total Hip Arthroplasty in Young Patients: Traditional and Ceramic-Ceramic Bearings
  - Osteotomy of the Hip: Still an option for specific indications.
- 1999 After the Fall: Management of Periprosthetic Hip Fractures. Current Concepts in Joint Replacement. Case Western Reserve University, Orlando, FL
- 1999 Computer Assisted Orthopedic Surgery CAOS/USA, Pittsburg, PA. Applications of Computer –Aided Surgery of Pelvic Osteotomy for Dysplastic Hips.
- 1999 American Academy of Orthopedic Surgeons Instructional Course #410. Principles of Pelvic Osteotomy: Patient Evaluation, Preoperative Planning, Results.
- 1999 American Academy of Orthopedic Surgeons Instructional Course #430. Preoperative Planning and Technique of Periacetabular Osteotomy.
- 1999 Modified Bernease Periacetabular Osteotomy for High Grade Hip Dysplasia. American Academy of Orthopedic Surgeons.
- 1999 Results of Total Hip Arthroplasty with an Uncemented Fluted Slotted H.A. Coated Femoral Component. American Academy of Orthopedic Surgeons.
- 1999 11<sup>th</sup> Annual Conference on Techniques and Science for Successful Joint Arthroplasty. Thayer School of Engineering, Dartmouth College, Hanover, NH.:
- Bone Stock Deficiency in Total Hip Arthroplasty
  - Dislocation of Total Hip Arthroplasty: Prevention and Treatment
  - Total Hip Arthroplasty in Young, High Demand Patients
- 2000 Orthopedic Grand Rounds, Massachusetts General Hospital, Boston, MA. Joint Preserving Surgery of the Hip.
- 2000 Core Curriculum Lecture, Harvard Combined Orthopedic Residency. Total Hip Arthroplasty After Acetabular Fracture and for Pelvic Discontinuity.
- 2000 American Academy of Orthopedic Surgeons Instructional Course #110. Principles of Pelvic Osteotomy: Patient Evaluation, Preoperative Planning, Results.
- 2000 American Academy of Orthopedic Surgeons Instructional Course #201. Preoperative Planning and Technique of Periacetabular Osteotomy.
- 2000 American College of Rheumatology, Boston, Massachusetts: Joint Reconstructive Surgery.
- 2000 Open Scientific Meeting of the Hip Society, Orlando, Florida: Pre-operative Planning of Surgery for Acetabular Dysplasia.
- 2000 Current Concepts in Joint Replacement. Case Western Reserve University (Las Vegas)
- Ceramic Bearings: America, Where are You?
  - Treatment of Femero-Acetabular Impingement by Surgical Dislocation and Debridement

- A Distal Press-Fit Modular Option: Simplifications?
- 2000 Annual Meeting of the Mexican Academy of Orthopedic Surgeons, Mexico City.
- Joint Preserving Surgery of the Hip
  - Principles of Pelvic Osteotomy: Patient evaluation, pre-operative Planning, Results
  - Preop planning and Technique of Periacetabular Osteotomy
- 2000 Annual Meeting of the Orthopedic Society of Ecuador, Quito, Ecuador
- Treatment of Intraarticular Problems by Hip Arthroscopy and Hip Arthrotomy
  - Periacetabular Osteotomy for the Treatment of Dysplastic Hips
  - Total Hip Arthroplasty in Young Patients
  - Bone Stock Deficiency and Revision Total Hip Arthroplasty
- 2000 Current Techniques in Total Joint Replacement. University of West Virginia (Naples, FL)
- American Experience with Ceramic-Ceramic Total Hip Arthroplasty in Young Patients
  - Osteonecrosis of the Hip: Treatment Options.
- 2000 12<sup>th</sup> Annual Conference on Techniques and Science for Successful Joint Arthroplasty. Thayer School of Engineering, Dartmouth College, Hanover, NH.:
- A Distal Press-Fit Modular Option for Femoral Revision
  - Dislocation of Total Hip Arthroplasty: Prevention and Treatment
  - Contemporary Ceramic-Ceramic Bearings in Total Hip Arthroplasty
- 2001 Clinical Results of Ceramic-Ceramic Total Hip Arthroplasty. Columbia Hospital, Kohler, WI
- 2001 Science and Technique of Total Joint Replacement, University of South Florida, Tampa, Florida:
- Alternatives to Total Knee Arthroplasty
  - Alternatives to Total Hip Arthroplasty
  - Surgical Exposure for Revision Total Hip Arthroplasty
- 2001 Clinical Results of Ceramic-Ceramic Total Hip Arthroplasty. Vail, CO.
- 2001 Current Concepts in Joint Replacement. Case Western Reserve University, Orlando, FL
- Ceramic-Ceramic Bearings in Total Hip Arthroplasty
  - Bone Stock Deficiency of the Femur in Revision Total Hip Arthroplasty
  - Image-Guided Surgical Navigation for Total Knee Arthroplasty
- 2001 Combined Orthopedic Grand Rounds, Massachusetts General Hospital. Surgical Navigation for Reconstructive Surgery of the Hip and Knee.
- 2002 Computerized Pre-operative Analysis and Planning of Pelvic Osteotomy, Open Scientific Meeting of The Hip Society, Dallas.
- 2003 AO Symposium on Surgical Preservation of the Hip, Mammoth Mountain, California. Factors Predicting Outcome of Periacetabular Osteotomy for Hip Dysplasia.
- 2003 The Roxbury Society. Boston, Massachusetts. Advances in Computer-assisted Surgery of the Hip and Knee.
- 2003 American Academy of Orthopedic Surgeons Instructional Course . Hip Joint Preserving Surgery Beyond Classical Osteotomy.



- 2003 Current Concepts in Joint Replacement, Las Vegas, Nevada
- Orthopedic Crossfire Debate: Ceramic Bearings: America You Arrived!
  - The Revision Femur: A Modular Option for Proximal Bone Loss
  - Hip Arthroplasty in 2003: What's New, What's True" Evidence Based Issues, Panel Discussion
- 2003 Science and Technique of Total Joint Replacement, University of South Florida, Tampa, Florida:
- 1
  - 2
  - Talk 3
- 2003 Symposium on Less and Minimally Invasive Surgery of the Hip and Knee, Pittsburgh, Pennsylvania.
- 1
  - 2
  - 3
- 2003 Alternative Bearings Symposium, San Francisco, California. Tissue-Preserving, Computer-Assisted, Ceramic-Ceramic Hip Arthroplasty.
- 2003 2<sup>nd</sup> Symposium on Less and Minimally Invasive Surgery of the Hip and Knee, Pittsburgh, Pennsylvania.
- 1
  - 2
  - 3
- 2003 Current Concepts in Joint Replacement, Orlando, Florida
- 1
  - 2
  - 3
- 2004 American Academy of Orthopedic Surgeons Instructional Course #282. Hip Joint Preserving Surgery Beyond Classical Osteotomy. San Francisco, CA
- 2004 Debridement of the Adult Hip for Femoro-Acetabular Impingement: Indications and Preliminary Clinical Results. Open Scientific Meeting of the Hip Society, San Fransico, CA
- 2004 Current Concepts in Joint Replacement, Las Vegas, NV
- Allograft Tissue Use: When and How
  - The ABC's of Computer-Assisted Total Hip Arthroplasty
- 2004 Image-based Total Hip Arthroplasty. Computer-Assisted Orthopedic Surgery International, Chicago, Illinois
- 2004 New South Wales Orthopedic Registrar Meeting, Sydney, New South Wales, Australia: Introduction to Computer-Assisted Orthopedic Surgery, New South Wales
- 2004 Australian Orthopedic Association. Brisbane, Queensland, Australia: Surgical Navigation for Total Knee Arthroplasty.
- 2004 MIS meets CAOS Symposium, Naples, Florida

- Conventional THR vs Tissue-Preserving, Minimally Invasive THR: A Prospective Study of Recover and Complications
  - Experience with Computer Assisted Total Hip Arthroplasty: Fluoroscopic and CT Based Navigation
  - Current Technique of Tissue-Preserving, Computer-Assisted Total Hip Arthroplasty
- 2004 18<sup>th</sup> Annual David Grice Symposium at Children's Hospital, Boston, MA: Conventional vs Tissue-Preserving Total Hip Replacement: A Prospective Study of Recovery and Complications.
- 2005 American Academy of Orthopedic Surgeons, Washington, DC. Instructional Course #185: Hip Joint Preserving Surgery Beyond Classical Osteotomy.
- 2005 Quito Orthopedic Society, Quito, Ecuador
- Revision Total Hip Arthroplasty
  - Computer-Assisted Total Hip and Knee Arthroplasty
- 2005 New Trends in Joint Replacement Symposium, Beijing Jishuitan Hospital, Beijing, China
- Long-term Results of Periacetabular Osteotomy for Hip Dysplasia
  - Periacetabular Osteotomy for Hip Dysplasia Using the Limited Smith-Petersen Approach
  - Experience and Technique in Minimally Invasive Total Hip Replacement Surgery
  - Experience with Ceramic-Ceramic Total Hip Arthroplasty
  - Computer-Assisted Total Hip Arthroplasty: Reasons to Navigate
- 2005 Hangzhou, China:
- 2005 Shanghai, China:
- 2005 International Symposium on Current Techniques in Total Hip Replacement. Cernobbio, Italy
- Application of Navigation in Minimally Invasive Hip Arthroplasty
- 2005 MIS meets CAOS Symposium, Indianapolis, Indiana
- Experience with Computer Assisted Total Hip Arthroplasty: Fluoroscopic and CT-Based Navigation
  - Computer-Assisted, Tissue Preserving Total Hip Replacement: Preparing the Femur First
  - Advantages of Computer-Assisted, Tissue-Preserving Total Hip Replacement
- 2005 Summer Meeting of the Hip Society, Pittsburgh, PA
- Experience with Alumina Ceramic-Ceramic THA
  - Total Hip Arthroplasty Using Conventional and Tissue-Preserving Techniques: A Prospective Study Assessing Recovery and Complications
- 2005 MIS meet CAOS Symposium, San Diego, California
- Advantages of Combined Tissue-Preserving/Computer Assisted Total Hip Arthroplasty Over Conventional Total Hip Arthroplasty
  - Tissue Preserving Total Hip Arthroplasty Using a Superior Capsulotomy: Preparing the Femur First
- 2005 2<sup>nd</sup> Annual Orthopedics Today Symposium, New York, New York: Single Incision Tissue Preserving Total Hip Replacement Using a Superior Capsulotomy
- 2006 AO/ASIF Symposium on Surgical Preservation of the Hip, Mammoth Lakes, California: Outcome of Femoroacetabular Impingement Treatment.
- 2006 Open Scientific Meeting of the Hip Society, Chicago, Illinois: American Experience with Alumina Ceramic-Ceramic Total Hip Arthroplasty,
- 2006 American Academy of Orthopedic Surgeons, Chicago, Illinois: Instructional Course #185. Hip Joint

Preserving Surgery Beyond Classical Osteotomy.

- 2006 American Academy of Orthopedic Surgeons Instructional Course #3007, Chicago, Illinois: Minimally Invasive Hip and Knee Replacement.
- Total Hip Arthroplasty Performed Using Conventional and Navigated Tissue-Preserving Techniques.
  - CT and Fluoroscopic-based Navigation. The Basics.
  - A New Method Of Intraoperative Leg Length Assessment During Total Hip Arthroplasty.
- 2006 American Academy of Orthopedic Surgeons, San Diego, California. Instructional Course #342: Controversies in Treating the Young Adult Hip Patient.
- 2006 The Little Orthopedic Club, Boston, Massachusetts: New Advances in Arthroplasty
- 2006 MIS meets CAOS symposium, Scottsdale Arizona
- 2006 Annual Harvard Hip and Knee Course, Harvard Medical School, Cambridge, Massachusetts: Experience with Open Procedures for Femoroacetabular Impingement
- 2006 Minimally Invasive Surgery Meets Computer Assisted Surgery, Scottsdale, Arizona.
- Tissue-Preserving Total Hip Arthroplasty Using A Superior Capsulotomy: Preparing the Femur First
  - Advantages of minimally invasive and computer assisted total hip arthroplasty over conventional total hip arthroplasty
  - Accuracy of a Simplified Leg Length Measurement Algorithm in Hip Arthroplasty
  - Passive Kinematics and Ligamentous stability of the knee using a novel navigation system
- 2006 The Association of Bone and Joint Surgeons Carl T. Brighton Workshop on Less Invasive and Computer Assisted Surgery, Tampa, Florida: Hip Reconstruction: Minimally Invasive Surgery Meets Computer Assisted Surgery.
- 2008 On Scientific Meeting of the Hip Society, San Diego: Surgical Navigation for Hip Arthroplasty.
- 2007 The Great Debate: Early Intervention in the Hip and Knee. Imperial College, London
- Surgical Navigation for Hip Arthroplasty
  - Long-term Results of Periacetabular Osteotomy for the Treatment of Hip Dysplasia
  - Superior Capsulotomy for Tissue-Preserving Total Hip Arthroplasty
- 2007 The Bernese Hip Symposium, University of Bern, Bern, Switzerland
- Femoroacetabular Impingement: Diagnosis and Radiographic Assessment
  - Tissue-Preserving Total Hip Arthroplasty using a Superior Capsulotomy
- 2007 American Academy of Orthopedic Surgeons. San Diego, California. Instructional Course Lecture 342: Controversies in treating the young adult hip patient.
- 2007 The Open Scientific Meeting of the Hip Society, San Diego, California. Computer-Assisted Navigation: Why is it needed?

- 2007 Twelfth Congress of AMECRA, Acapulco, Mexico
- Joint Preserving Surgery of the Hip: Open vs Arthroscopic
  - Minimally Invasive Techniques for Total Hip Arthroplasty
- 2007 9<sup>th</sup> Annual Conference of the Asia Pacific Arthroplasty Society, Mumbai, India
- Validity of reproducing normal knee kinematics in total knee arthroplasty, Debate
  - Computerization and the finer art of knee balancing, Instruction Course Lecture
  - 10-year results of ceramic-ceramic total hip arthroplasty in developmental dysplasia of the hip
- 2007 Current Concepts in Joint Replacement, Orlando, Florida
- Orthopedic Crossfire: The Squeaking Hip; A Cause for Concern. Debate
  - Managing Leg Length and Stability in Total Hip Arthroplasty: The role of the modular neck
  - The Superior Capsulotomy: A minimally invasive technique for total hip arthroplasty
- 2008 American Academy of Orthopedic Surgeons. San Francisco, California. Instructional Course Lecture 241: Controversies in Treating the Young Adult Hip Patient. Joint Preserving vs Joint Replacing Surgery in Developmental Dysplasia of the Hip: Who Gets What?
- 2008 The Bernese Hip Symposium, University of Bern, Bern, Switzerland
- Morphology and Biomechanics of the Hip: Pre-arthrotic deformities of the proximal femur
  - Treatment of Femoroacetabular Impingement: Computer-assisted Arthroscopic Surgery
  - Femoroacetabular Impingement Surgery: Mid-term Results from Boston
  - Resurfacing Hip Arthroplasty: Why not to perform hip resurfacing
- 2008 Current Concepts in Joint Replacement, Las Vegas, Nevada
- Hip Arthroscopy: What it does and doesn't do
  - The role of the modular neck in primary THA: Rotating to success
  - Superior capsulotomy: A MIS technique for THR
- 2008 Closed Annual Meeting Hip Society, Chicago, Illinois
- Outcome of ceramic-ceramic total hip arthroplasty at 2 to 11 years of in patients with developmental dysplasia of the hip
- 2008 Annual Congress of the International Society for Technology in Arthroplasty (ISTA), Seoul, South Korea
- HipMatch: A 2D-3D Matching Software – Accurate and Reliable.
  - Outcome of Ceramic-Ceramic Total Hip Arthroplasty at Two to Ten Years in Patients with Developmental Dysplasia of the Hip.
  - Clinical Experience with the Ceramic on Ceramic Articulation in THR in the USA.

- Avoiding Complications in the Use of the Alumina Ceramic on Ceramic Articulations: Pearls and Pitfalls.
  - Pelvic tilt before and after total hip arthroplasty
- 2008 39<sup>th</sup> Annual Meeting of Eastern Orthopaedic Association, Las Vegas, Nevada
- Outcome of ceramic-ceramic total hip arthroplasty in patients younger than 50 years
  - Outcome of ceramic-ceramic total hip arthroplasty in patients with developmental dysplasia of the hip
  - Evaluation of intraoperative pelvic position using software-based computed tomography/radiography matching
  - Safety and recovery after total hip arthroplasty using the superior capsulotomy technique
- 2008 International Society for Technology in Arthroplasty, Seoul, Korea
- Clinical Experience with the Ceramic on Ceramic Articulation in THR in the USA
  - Avoiding Complications in the Use of the Ceramic on Ceramic Articulation: Pearls and Pitfalls
- 2008 Current Concepts in Joint Replacement, Orlando, Florida
- Orthopedic Crossfire: Ceramic-Ceramic Total Hip Arthroplasty. Debate
  - The Superior Capsulotomy: A minimally invasive technique for total hip arthroplasty
- 2009 AO Symposium on Surgical Preservation of the Hip, Lake Tahoe, California
- Aspects of Development Dysplasia of the Hip affecting prognosis
- 2009 American Academy of Orthopedic Surgeons, Instructional Course Lecture Series.
- Controversies in Joint Preserving Hip Surgery: Factors to consider when recommending joint preserving surgery.
- 2009 Bioceramics and Alternative Bearings in Joint Arthroplasty. Edinburgh, Scotland. President Symposium: Promise for a Successful Surgery
- Alumina Ceramic-on-Ceramic THA in Patients 50 Years and Younger.
- 2009 Summer Meeting of the Hip Society, Palo Alto, California.
- The Hip Sextant: A Mechanical Navigation Device for Acetabular Component Positioning
- 2009 22<sup>nd</sup> Annual Congress of the International Society for Technology in Arthroplasty. Big Island, Hawaii. Symposium on Bearings and Materials in Knee and Hip Arthroplasty
- Proper Implantation of Ceramic-Ceramic Bearing Couples in Hip Arthroplasty
- 2009 American Association of Hip and Knee Surgeons Symposium: Reliability of Ceramic Components in Total Hip Arthroplasty. Dallas, Texas. Clinical Reliability of Ceramic Components in Total Hip Arthroplasty
- 2009 4<sup>th</sup> Annual Meeting of the British Society for Computer Assisted Orthopedic Surgery, London, UK
- The Evolution from Optical Tracking to Smart Mechanical Instruments

- Experience with Acetabular Component Alignment using CT-based Jigs
- 2009 Current Concepts in Joint Replacement, Orlando, Florida
- Femoral Neck Modularity in Total Hip Arthroplasty
  - The Hip Sextant: Navigating Acetabular Cup Placement
- 2010 The Bernese Hip Symposium, University of Bern, Bern, Switzerland
- Various Approaches for Arthroplasty of the Hip
  - The Problems of Hip Resurfacing Arthroplasty
- 2010 The Hip Society. Thirty-Eighth Open Meeting
- Issues in Primary THR-Best Practice. Panel Discussion.

Questions:

[Application of surgical navigation to total hip arthroplasty.](#)

Ecker TM, Murphy SB.

Proc Inst Mech Eng H. 2007 Oct;221(7):699-712. Review.

[\[Conventional vs minimally invasive total hip arthroplasty. A prospective study of rehabilitation and complications\].](#)

Murphy SB, Tannast M.

Orthopade. 2006 Jul;35(7):761-4, 766-8. German.

[Management of acetabular bone stock deficiency.](#)

Murphy SB.

J Arthroplasty. 2005 Jun;20(4 Suppl 2):85-90.

[The planning of orthopaedic reconstructive surgery using computer-aided simulation and design.](#)

Murphy SB, Kijewski PK, Millis MB, Hall JE, Simon SR, Chandler HP.

Comput Med Imaging Graph. 1988 Jan-Feb;12(1):33-45.

Acceptances at eoa 2008 (simon)

To do: aaos 09 abstracts. Abstracts from 2003. Invited lectures from 2003.

What I've checked:

2008: aaos08, Ista 08, CcjrS08, CCJR w08, caosi 08, hip soc 08., bernese hip symposium 08.

1997-1999	Secretary, Associated Physicians Inc., Caregroup-affiliated physicians
2000-Present	Vice-President and Director, New England Orthopedic Network