

## **Raymond H. Kim**

The Steadman Clinic  
Steadman Philippon Research Institute  
Board Certified Orthopaedic Surgeon  
Adult Reconstruction, Primary and Revision Knee and Hip  
Arthroplasty

Adjunct Associate Professor of Bioengineering  
Department of Mechanical and Materials Engineering  
University of Denver

Clinical Associate Professor  
Department of Orthopaedic Surgery  
Joan C. Edwards School of Medicine at Marshall University

Medical Director  
Vail Health Total Joint Service Line

### *Education and Training*

1987 - 1991 Phillips Exeter Academy  
Exeter, NH

1991 - 1995 Johns Hopkins University  
Baltimore, MD  
B.S. in Biomedical Engineering  
B.A. in Electrical Engineering

1996 - 2000 Marshall University School of Medicine  
Huntington, WV

2000 - 2001 Mayo Graduate School of Medicine  
Rochester, MN  
Orthopaedic Surgery Internship

2001 - 2005 Mayo Graduate School of Medicine  
Rochester, MN  
Orthopaedic Surgery Residency

2005 - 2006 Insall Scott Kelly Orthopaedic Institute  
New York, NY  
Fellowship in Sports Medicine and  
Adult Reconstruction

### *Awards and Honors*

MS-1 Academic Achievement Award 1997  
*Award for achieving a 4.0 GPA as a 1<sup>st</sup> year medical student*

MS-2 Academic Achievement Award 1998  
*Award for achieving a 4.0 GPA as a 2<sup>nd</sup> year medical student*

Glen G. Hunter, M.D. Memorial Award 1998  
*Award for the highest academic standing in Pathology*

Alpha Omega Alpha 1999 inducted as 3<sup>rd</sup> year medical student  
*Medical Honor Society*

The Bertha and Lake Polan Award 2000  
*Award for the graduating medical student with the highest academic standing*

The Peer Choice Award 2000  
*Award selected by the graduating class of 2000 for the medical student exemplifying the ideal physician*

The Karis Humanitarian Award 2005  
*Award for providing compassionate patient care at the Mayo Clinic*

The Insall Traveling Fellowship 2008  
*One of four international award recipients selected to advance the legacy of John N. Insall through lecturing and visiting prominent knee surgery centers across the United States*

The Knee Society 2010 John Insall Award  
*Control-matched evaluation of patellar crepitus after total knee arthroplasty. Douglas A. Dennis, **Raymond H. Kim**, Derek R. Johnson, Bryan D. Springer, Thomas K. Fehring, Adrijia Sharma.*

Co-Chairman of the 3<sup>rd</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 13 – 16, 2011

Co-Chairman of the 4<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 12 – 15, 2012

Co-Chairman of the International Congress for Joint Reconstruction in San Diego, California, April 27 – 29, 2012

Chairman of the 5<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 17 – 20, 2013

Co-Chairman of the Rocky Mountain Orthopaedic Resident Arthroplasty Course, August 23-24, 2013

Chairman of the 6<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 16 – 19, 2014

Co-Chairman of the Rocky Mountain Orthopaedic Resident Arthroplasty Course, August 22-23, 2014

Chairman of the 7<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 15 – 18, 2015

Co-Chairman of the Rocky Mountain Orthopaedic Resident Arthroplasty Course, August 21-22, 2015

Chairman of the 8<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 14 – 17, 2016

Chairman of the 9<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 12 – 14, 2017

Chairman of the 10<sup>th</sup> Annual International Congress for Joint

Reconstruction in Vail, Colorado, January 18 – 21, 2018

Chairman of the 11<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 17 – 20, 2019

Chairman of the 12<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 16 – 19, 2020

Chairman of the 13<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, March 25 – 28, 2021

Chairman of the 14<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 13 – 16, 2022

Chairman of the 15<sup>th</sup> Annual International Congress for Joint Reconstruction in Vail, Colorado, January 12 – 15, 2023

Chairman of the 1<sup>st</sup> Annual International Orthopaedic Education Network Vail Arthroplasty Course in Vail, Colorado, January 11 – 14, 2024

Chairman of the 2<sup>nd</sup> Annual International Orthopaedic Education Network Vail Arthroplasty Course in Vail, Colorado, January 17 – 19, 2025

Named among Top 26 U.S. Knee Surgeons  
Orthopedics This Week, July 20, 2012

Named among Top 22 North American Knee Surgeons  
Orthopedics This Week, February 18, 2014

Host for the Insall Traveling Fellowship 2019

Host for the Insall Traveling Fellowship 2020

Host for the Insall Traveling Fellowship 2021

Host for the Insall Traveling Fellowship 2022

Host for the Insall Traveling Fellowship 2023

## Host for the Insall Traveling Fellowship 2024

### *Certification and Memberships*

American Board of Orthopaedic Surgery – Diplomat 2008 to present

American Academy of Orthopaedic Surgeons – Active Fellow 2009 to present

American Association of Hip and Knee Surgeons – Fellow Member 2010 to present

Insall Club – 2006 to present

Mayo Clinic Alumni Association – 2005 to present

### *Research and Publications*

1. Pigmented Villonodular Synovitis of the Foot and Ankle: Clinical Presentation and Management. Peter Rose, **Raymond H. Kim**, Harold Kitaoka, Franklin Sim. Poster, Musculoskeletal Tumor Society 2005.
2. Pigmented Villonodular Synovitis of the Foot and Ankle: Clinical Presentation and Management. John Reach, **Raymond H. Kim**, Peter Rose, Harold Kitaoka, Franklin Sim. Paper #448, American Academy of Orthopaedic Surgeons 2006.
3. Survivorship of Uncemented Femoral Components in Total Hip Arthroplasty Patients less than 50 years old. Matthew Wallace, R. Michael Meneghini, **Raymond H. Kim**, Robert T. Trousdale. Poster #36, Mid-America Orthopedic Association April 2007.

4. Use of Lidocaine with Epinephrine Injection to Reduce Blood Loss in MIS Total Knee Arthroplasty. **Raymond H. Kim**, Giles Scuderi, Fred Cushner, Michael Kelly, W. Norman Scott, Shani Junger. Poster #P168, American Academy of Orthopaedic Surgeons 2007.
5. The Squeaking Hip: A Cause for Concern - Disagrees. Charlie C. Yang, **Raymond H. Kim**, Douglas A. Dennis. Orthopedics 2007; Sep; 30(9): 739-42.
6. Lateral Retinacular Release Rates in Mobile- versus Fixed-bearing TKA. Charlie C. Yang, Lee A. McFadden, Douglas A. Dennis, **Raymond H. Kim**, Adrijia Sharma. Clinical Orthopaedics and Related Research 2008; Nov; 466(11): 2656-61.
7. Management of the Stiff Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis. Master Techniques: Knee Arthroplasty, 3<sup>rd</sup> edition. Lippincott Williams and Wilkins; Philadelphia, 2009; pp. 423-434.
8. Basics of Primary Total Hip Arthroplasty: Preoperative and Postoperative Decisions. Douglas A. Dennis, **Raymond H. Kim**, Thomas S. Thornhill, Robert T. Trousdale. Instructional Course Lectures, Volume 58. 2009; 58: 143-56.
9. Primary Total Hip Arthroplasty: Intraoperative Decisions and Surgical Techniques. Douglas A. Dennis, **Raymond H. Kim**, Thomas S. Thornhill, Robert T. Trousdale. Instructional Course Lectures, Volume 58. 2009; 58: 157-66.
10. Metal-on-Metal Total Hip Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis, Joshua T. Carothers. Journal of Arthroplasty 2008; Oct; 23(7 Suppl): 44-6.
11. Bent but not Broken: Managing Severe Deformity in Total Knee Arthroplasty. Joshua T. Carothers, **Raymond H. Kim**, Douglas A. Dennis. Seminars in Arthroplasty 2008; 19:103-108; 2008.
12. Stability of Total Knee Arthroplasty Performed Using Measured Resection Versus Gap Balancing Methods. Douglas A. Dennis, Richard Komistek, **Raymond H. Kim**, Adrijia Sharma. Poster #2069.

Orthopaedic Research Society, Las Vegas, Nevada, February 2009.

13. Meta-analysis of Outcomes of Mobile Bearing TKA. Douglas A. Dennis, Joshua T. Carothers, **Raymond H. Kim**. Poster #2103. Orthopaedic Research Society, Las Vegas, Nevada, February 2009.

14. Evaluation of Posterior-Stabilized Tendofemoral Contact during Simulated Deep Squat. **Raymond H. Kim**, Douglas A. Dennis, Joshua T. Carothers, Mark A. Baldwin, Peter J. Laz, Lorin Maletsky, Paul J. Rullkoetter. Poster #2394. Orthopaedic Research Society, Las Vegas, Nevada, February 2009.

15. Avoidance and Management of Intraoperative Complications in Revision Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis, Robert T. Trousdale. Accepted for publication. Revision Total Hip and Knee Arthroplasty. Lippincott Williams and Wilkins.

16. Total Knee Replacement in the Varus Knee. **Raymond H. Kim**, W. Norman Scott. Operative Techniques: Total Knee Replacement. Saunders Elsevier; Philadelphia, 2009; pp. 91-103.

17. Mobile Bearing Total Knee Arthroplasty: Advantages and Disadvantages. **Raymond H. Kim**, Douglas A. Dennis. Accepted for publication. Knee Surgery. Springer.

18. Gap balancing versus measured resection technique for total knee arthroplasty. Douglas A. Dennis, Richard Komistek, **Raymond H. Kim**, Adrijia Sharma. Clinical Orthopaedics and Related Research 2010. Jan; 468(1): 102-7.

19. How much constraint is required in complex revision total knee arthroplasty? Derek R. Johnson, Douglas A. Dennis, **Raymond H. Kim**. Techniques in Knee Surgery 2009; 8: 166-173.

20. Mobile-Bearing Total Knee Arthroplasty: A Meta-analysis. Joshua T. Carothers, **Raymond H. Kim**, Douglas A. Dennis, Carlton Southworth. Journal of Arthroplasty 2011. Jun; 26(4): 537-42.

21. A Fall Prevention Protocol to Minimize Postoperative Falls in a High Volume Total Joint Center. **Raymond H. Kim**, Douglas A.

Dennis, Kathy Jones, Shani Junger. Submitted to American Academy of Orthopaedic Surgeons 2008.

22. Comparison of single shot versus continuous femoral nerve blockade for postoperative pain control in total knee arthroplasty patients. A prospective randomized study. **Raymond H. Kim**, Douglas A. Dennis, Brian J. Choi. Study in progress.

23. Technical Challenges of Total Knee Arthroplasty in Skeletal Dysplasia. **Raymond H. Kim**, Giles R. Scuderi, Douglas A. Dennis, Steven W. Nakano. Clinical Orthopaedics and Related Research 2011. Jan; 469(1): 69-75.

24. Early Clinical Results of Mobile-Bearing Revision Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis, Charlie C. Yang, Brian D. Haas. Submitted for publication.

25. Dealing with complications. Kevin L. Garvin, David Backstein, Vincent D. Pellegrini Jr., **Raymond H. Kim**, David G. Lewallen. Journal of Bone and Joint Surgery 2009. August; 91-A (Suppl 5): 18-21.

26. The new arthritic patient and nonarthroplasty treatment options. Michael A. Kelly, David F. Dalury, **Raymond H. Kim**, David Backstein. Journal of Bone and Joint Surgery 2009. August; 91-A (Suppl 5): 40-42.

27. Primary total knee arthroplasty: the impact of technique. Ormonde M. Mahoney, Henry D. Clarke. Michael A. Mont, Mike S. McGrath, Michael G. Zywiell, Douglas A. Dennis, **Raymond H. Kim**, Joshua Carothers. Journal of Bone and Joint Surgery 2009. August; 91-A (Suppl 5): 59-61.

28. Influence of patellar component alignment on patellofemoral joint mechanics. **Raymond H. Kim**, Douglas A. Dennis, R. Ramachandran, Mark A. Baldwin, Peter J. Laz, Paul J. Rullkoetter. Paper in preparation.

29. Stiffness after Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis. Interactive Educational Program (IEP) for Total Joint ([www.totaljoint-iep.com](http://www.totaljoint-iep.com)), 2009.
30. Posterior Cruciate Ligament Substituting Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis. Interactive Educational Program (IEP) for Total Joint ([www.totaljoint-iep.com](http://www.totaljoint-iep.com)), 2009.
31. Evaluation of TKA Performed with and without Computer Navigation: A Bilateral TKA Study. Derek R. Johnson, Douglas A. Dennis, Kirk Kindsfater, **Raymond H. Kim**. Poster. Orthopaedic Research Society, New Orleans, LA, March 2010.
32. Total Knee Arthroplasty in Skeletal Dysplasia. **Raymond H. Kim**, Giles R. Scuderi, Douglas A. Dennis, Steven W. Nakano. Poster #2386. Orthopaedic Research Society, Las Vegas, Nevada, March 2010.
33. The John Insall Award: Control-matched Evaluation of Painful Patellar Crepitus after Total Knee Arthroplasty. Douglas A. Dennis, **Raymond H. Kim**, Derek R. Johnson, Bryan D. Springer, Thomas K. Fehring, Adrijia Sharma. *Clinical Orthopaedics and Related Research* 2011. Jan; 469(1): 10-7.
34. Mobile Bearing Total Knee Arthroplasty: Technique and Results. **Raymond H. Kim**, Douglas A. Dennis. The Knee, A Comprehensive Review. World Scientific; New Jersey, 2010; pp. 467-485.
35. Clinical Results of Total Knee Arthroplasty in Skeletal Dysplasia. **Raymond H. Kim**, Douglas A. Dennis, Giles R. Scuderi, Jeffrey Kim, David Dalury. Poster #190, American Academy of Orthopaedic Surgeons, San Diego, CA, February 2011.
36. Control-Matched Computational Evaluation of Tendo-Femoral Contact in Patients with PS TKA. Heather E. Hoops, Derek R. Johnson, **Raymond H. Kim**, Douglas A. Dennis, Mark A. Baldwin, Clare F. Fitzpatrick, Peter J. Laz, Paul J. Rullkoetter, Orthopaedics Research Society, 2011.

37. Overstuffing of the Patella Alters Patellofemoral Mechanics and Limits Flexion. Heather E. Hoops, **Raymond H. Kim**, Derek R. Johnson, Douglas A. Dennis, Mark A. Baldwin, Clare F. Fitzpatrick, Peter J. Laz, Paul J. Rullkoetter, Orthopaedics Research Society, 2011.
38. Can a High-flexion Total Knee Arthroplasty Relieve Pain and Restore Function Without Premature Failure? Ryan D. Bauman, Derek R. Johnson, Travis J. Menge, **Raymond H. Kim**, Douglas A. Dennis. *Clinical Orthopaedics and Related Research* 2012. Jan; 470(1): 150-8.
39. Anatomy of the Hip. **Raymond H. Kim**, Douglas A. Dennis. Surgery of the Hip. Accepted for publication. Elsevier.
40. Acetabular Revision: Rings/Cages/Custom Implants. Derek R. Johnson, **Raymond H. Kim**, Douglas A. Dennis. Surgery of the Hip. Accepted for publication. Elsevier.
41. Knee Reconstruction and Replacement. **Raymond H. Kim**, Bryan D. Springer, Douglas A. Dennis. Orthopedic Knowledge Update 10. Flynn JM (ed). Rosemont, IL, 2011. Ch .36, pp. 469 - 478.
42. Revision TKA: Condylar TKA: Constraint Level. Douglas A. Dennis, Derek R. Johnson, **Raymond H. Kim**. Advanced Reconstruction: Knee. Lieberman JR, Berry DJ, Azar FM (eds). AAOS. Rosemont, IL, 2011, pp. 439 - 449.
43. Evaluation of TKA performed with and without computer navigation: a bilateral study. Derek R. Johnson, Douglas A. Dennis, Kirk Kindsfater, **Raymond H. Kim**. Poster #191. American Academy of Orthopaedic Surgeons 2011, San Diego, CA, February 2011.
44. Mobile Bearing TKA. **Raymond H. Kim**, Douglas A. Dennis. Surgery of the Knee. Insall and Scott, 5<sup>th</sup> edition. Accepted for publication. Elsevier.
45. Control-Matched Computational Evaluation of Tendo-Femoral

Contact in Patients with Posterior-Stabilized TKA. Heather E. Hoops, Derek R. Johnson, **Raymond H. Kim**, Douglas A. Dennis, Mark A. Baldwin, Clare F. Fitzpatrick, Peter J. Laz, Paul J. Rullkoetter. Journal of Orthopedic Research 2012; Feb 1.

46. Evaluation of the Painful Total Knee Arthroplasty. **Raymond H. Kim**, Bryan D. Springer, Douglas A. Dennis. Fundamentals of Revision Knee Arthroplasty: Diagnosis, Evaluation and Treatment. Jacofsky D, Hedley AK (eds). SLACK, Inc. Thorofare, NJ.

47. Management of an Infected THA. Gwo-Chin Lee, **Raymond H. Kim**, Bryan D. Springer, Sebastian Lustig. Orthopedics 2012; Apr; 35(4): 316-9.

48. Intraoperative Tests to Aid Diagnosis of Periprosthetic Joint Infections. Gwo-Chin Lee, **Raymond H. Kim**. Periprosthetic Joint Infections. Parvizi J, Springer BD (eds). Springer, New York 2012

49. The differences between the medial and lateral femoral condyles and the incidence of lateral femoral condylar hypoplasia in the knee. **Raymond H. Kim**, Kenneth Greene, Michael A. Mont, David Jacofsky, Donald Eckhoff, Michael Dunbar, Bryan Springer, Jerry D'Alessio, Amisha Patel, Mark Kester. Poster #8. Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

50. Joint line orientation in the non-diseased population. **Raymond H. Kim**, Michael A. Mont, Donald Eckhoff, Michael Dunbar, Bryan Springer, David Jacofsky, Kenneth Greene, Jerry D'Alessio, Amisha Patel, Mark Kester. Poster #17. Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

51. Value of new technology: surgeon satisfaction of custom cutting guides in TKA. Michael A. Mont, Michael Dunbar, Donald Eckhoff, Kenneth Greene, David Jacofsky, **Raymond H. Kim**, Bryan Springer, Jerry D'Alessio, Amisha Patel, Mark Kester. Poster #22. Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

52. Comparison of alignment values between short and long leg

images. Michael A. Mont, David Jacofsky, **Raymond H. Kim**, Donald Eckhoff, Bryan Springer Michael Dunbar, Kenneth Greene, Jerry D'Alessio, Amisha Patel, Mark Kester. Poster #23. Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

53. Contributions of Femoral, Tibial, and Patellar Component Malposition to Patellar Maltracking in TKA. Gwo-Chin Lee, Jonathan P. Garino, **Raymond H. Kim**, Nathan M. Lenz. Poster #18, AAHKS, Dallas, TX, November 2, 2012.

54. Physiologic and Functional Recovery Following Total Hip Arthroplasty versus Healthy Controls: Outcomes through One Year. Michael R. Dayton, Dana L. Judd, Abbey Thomas, Douglas A. Dennis, **Raymond H. Kim**, Jennifer Lapsley. Poster #23. AAHKS, Dallas, TX, November 2, 2012.

55. Evaluation of total knee arthroplasty performed with and without computer navigation: a bilateral total knee arthroplasty study. Derek R. Johnson, Douglas A. Dennis, Kirk Kindsfater, **Raymond H. Kim**. Journal of Arthroplasty 2013. Mar; 28(3): 455-8.

56. Is socioeconomic status a risk factor for stiffness after total knee arthroplasty? A multicenter case-control study. Bryan D. Springer, Susan M. Odum, VS Nagpal, Adolph V. Lombardi Jr., Keith R. Berend, **Raymond H. Kim**, Douglas A. Dennis. Orthop Clin North Am 2012. Nov; 43(5): e1-7.

57. The Effect of Femoral Component Design on the Incidence of Patellar Crepitus Following Total Knee Arthroplasty. **Raymond H. Kim**, Douglas A. Dennis, Derek R. Johnson, Michael Cahill. Poster #202, American Academy of Orthopaedic Surgeons, Chicago, IL, March 2013.

58. Contributions of Femoral, Tibial and Patellar Malposition to Patellar Maltracking in Total Knee Arthroplasty. Gwo-Chin Lee, Jonathan P. Garino, **Raymond H. Kim**, Nathan Lenz. Poster #114, American Academy of Orthopaedic Surgeons, Chicago, IL, March 2013.

59. Effects of resection thickness on mechanics of resurfaced patellae. Fitzpatrick CK, **Raymond H. Kim**, Ali AA, Smoger LM, Rullkoetter PJ. *Journal of Biomechanics* 2013 May 31; 46(9): 1568-75.
60. A statistical finite element model of the knee accounting for shape and alignment variability. Rao C, Fitzpatrick CK, Rullkoetter PJ, Maletsky LP, **Raymond H. Kim**, Laz PJ. *Med Eng Phys* 2013 Oct; 35(10): 1450-6.
61. Linear and curvilinear relationship between knee range of motion and physical functioning in people with knee osteoarthritis: a cross-sectional study. Hooeboom TJ, van Meeteren NL, **Raymond H Kim**, Stevens-Lapsley JE. *PLoS One*. 2013 Sep 26;8(9): e76173.
62. Specimen-specific modeling of hip fracture pattern and repair. Ali AA, Cristofolini L, Schileo E, Hu H, Taddei F, **Raymond H. Kim**, Rullkoetter PJ, Laz, PJ. *J Biomech* 2014 Jan22; 47(2): 536-43.
63. Instability after Total Knee Arthroplasty. McNabb DC, **Raymond H. Kim**, Springer BD. *J Knee Surg*. 2015 Apr; 28(2): 97-104.
64. Does Tourniquet Use in Total Knee Arthroplasty Affect Recovery of Lower Extremity Strength and Function? A Randomized Trial. Dennis DA, Kittelson AJ, Yang CC, Miner TM, **Raymond H. Kim**, Stevens-Lapsley JE. *Clinical Orthopaedics and Related Research* 2016 Jan; 474(1): 69-77.
65. Risk factors for delayed inpatient functional recovery after total knee arthroplasty. Hooeboom TJ, van Meeteren NL, Schank K, **Raymond H. Kim**, Miner T, Stevens-Lapsley JE. *Biomed Res Int*. 2015; 2015: 167643.
66. Determining False Positive Rates of Leukocyte Esterase Reagent Strip When Used as a Detection Tool for Joint Infection. McNabb DC, Dennis DA, **Raymond H. Kim**, Miner TM, Yang CC, Jennings JM. *Journal of Arthroplasty* 2017 Jan; 32(1): 220-222.
67. Tibial Tray Thickness Significantly Increases Medial Tibial Bone

Resorption in Cobalt-Chromium Total Knee Arthroplasty Implants. Martin JR, Watts CD, Levy DL, Miner TM, Springer BD, **Raymond H. Kim**. Journal of Arthroplasty 2017 Jan; 32(1): 79-82..

68. Medial Tibial Stress Shielding: A Limitation of Cobalt Chromium Tibial Baseplates. Martin JR, Watts CD, Levy DL, **Raymond H. Kim**. Journal of Arthroplasty 2017 Feb; 32(2): 558-562.

69. Incidence of Modern Alumina Ceramic and Alumina Matrix Composite Femoral Head Failures in Nearly 6 Million Hip Implants. Lee GC, **Raymond H. Kim**. Journal of Arthroplasty 2017. Feb; 32(2): 546-551.

70. Implant Design and Effects on Patellofemoral Crepitus. McNabb DC, Dennis DA, Jennings JM, Daines B, Laz P, **Raymond H. Kim**. J Knee Surg. 2017 Nov; 30(9): 863-871.

71. [False-positive Cultures After Native Knee Aspiration: True or False](#). Jennings JM, Dennis DA, **Raymond H. Kim**, Miner TM, Yang CC, McNabb DC. Clin Orthop Relat Res. 2017 Jul; 475(7): 1840-1843.

72. [Patellar component design influences size selection and coverage](#). Yang CC, Dennis DA, Davenport PG, **Raymond H. Kim**, Miner TM, Johnson DR, Laz PJ. Knee. 2017 Mar; 24(2): 460-467.

73. Tourniquet Application During Total Knee Arthroplasty Does Not Benefit Perioperative Blood Loss or Transfusion Requirement with the Routine Use of Tranexamic Acid. Watters TS, Levy DL, **Raymond H. Kim**, Miner TM, Dennis DA, Jennings JM. Reconstructive Review, 2016 Sept; 6(3): 43-47.

74. Early High-Intensity Versus Low-Intensity Rehabilitation After Total Knee Arthroplasty: A Randomized Controlled Trial. Bade MJ, Struessel T, Dayton M, Foran J, **Raymond H. Kim**, Miner T, Wolfe P, Kohrt WM, Dennis D, Stevens-Lapsley JE. Arthritis Care Res. 2017 Sep; 69(9): 1360-1368.

75. [False-positive Cultures After Native Knee Aspiration: True or False](#). Jennings JM, Dennis DA, **Raymond H. Kim**, Miner TM,

Yang CC, McNabb DC. Clin Orthop Relat Res. 2017 Jul; 475(7): 1840-1843.

76. Midterm Clinical and Radiographic Results of Mobile-Bearing Revision Total Knee Arthroplasty. **Raymond H. Kim**, Martin JM, Dennis DA, Yang CC, Jennings JM, Lee GC. J Arthroplasty. 2017 Jun; 32(6): 1930-1934.

77. Use of a computerized arthroplasty registry to generate operative reports decreases transcription errors. Jennings JM, McNabb DC, Meservey AJ, Dennis DA, **Raymond H. Kim**, Miner TM. Int J Med Inform. 2017 May; 101:23-27.

78. Patellar tendon reconstruction using an extended gastrocnemius flap following cryogenic injury to the knee. **Raymond H. Kim**, Randolph AH, Tirre CJ, Morrey M, Jennings JM. Knee. 2017 Jun; 24(3): 686-691.

79. Metal Artifact Reduction Sequence MRI Abnormalities in Asymptomatic Patients with a Ceramic-on-Polyethylene Total Hip Replacement. Jennings JM, Martin JR, **Raymond H. Kim**, Yang CC, Miner TM, Dennis DA. J Bone Joint Surg Am. 2017; Apr 5; 99(7): 593-598.

80. Magnitude of Deformity Correction May Influence Recovery of Quadriceps Strength After Total Knee Arthroplasty. Loyd BJ, Jennings JM, Falvey JR, **Raymond H. Kim**, Dennis DA, Stevens-Lapsley JE. J Arthroplasty. 2017 Sep; 32(9): 2730-2737.

81. Coronal alignment predicts the use of semi-constrained implants in contemporary total knee arthroplasty. Martin JR, Fehring KA, Watts CD, Levy DL, Springer BD, **Raymond H. Kim**. Knee. 2017 Aug; 24(4): 863-868.

82. Assessment of Knee Kinematics in Older Adults Using High-Speed Stereo Radiography. Kefala V, Cyr AJ, Harris MD, Hume DR, Davidson BS, **Raymond H. Kim**, Shelburne KB. Med Sci Sports Exerc. 2017 Nov; 49(11): 2260-2267.

83. Porous-Coated Metaphyseal Sleeves for Severe Femoral and

Tibial Bone Loss in Revision TKA. Watters TS, Martin JR, Levy DL, Yang CC, **Raymond H. Kim**, Dennis DA. J Arthroplasty. 2017 Nov; 32(11): 3468-3473.

84. Influence of Hip Abductor Strength on Functional Outcomes Before and After Total Knee Arthroplasty: Post Hoc Analysis of a Randomized Controlled Trial. Loyd BJ, Jennings JM, Judd DL, **Raymond H. Kim**, Wolfe P, Dennis DA, Stevens-Lapsley JE. Phys Ther. 2017 Sep 1; 97(9): 896-903.

85. Direct Anterior Hip Replacement Does Not Pose Undue Radiation Exposure Risk to the Patient or Surgeon. McNabb DC, Jennings JM, Levy DL, Miner TM, Yang CC, **Raymond H. Kim**. J Bone Joint Surg Am. 2017 Dec 6; 99(23): 2020-2025.

86. Radiographic Changes in Nonoperative Contralateral Knee After Unilateral Total Knee Arthroplasty. Parisi TJ, Levy DL, Dennis DA, Harscher CA, **Raymond H. Kim**, Jennings JM. J Arthroplasty. 2018 Jul; 33(7S): S116-S120.

87. Challenging the Three-Minute Dry Time: Why Are We Waiting?" Delagrammaticas DE, Rozell JC, Spratt JD, Akamefula R, **Raymond H. Kim**, Foran J, Poster, American Association of Hip and Knee Surgeons, Dallas, TX, 2019.

88. Outpatient Total Joint Arthroplasty: The New Reality. Rozell JC, Ast MP, Jiranek WA, **Raymond H. Kim**, Della Valle CJ. J Arthroplasty. 2021 Jul; 36(7S): S33-S39.

89. Sensitization to Implant Components is Associated with Joint Replacement Failure: Identification and Revision to Nonallergenic Hardware Improves Outcomes. Mayer AS, Erb S, **Raymond H. Kim**, Dennis DA, Shirname-More L, Pratte KA, Barker EA, Maier LA, Pacheco KA. J Allergy Clin Immunol Pract. 2021 Aug; 9(8): 3109-3117.e1.

90. A Hybrid Technique with a Standard Table and Mechanical Leg Holder. Joshua C. Rozell, Dimitri E. Delagrammaticas, **Raymond H. Kim**. Anterior Hip Replacement. Springer Nature Switzerland AG, 2022; pp. 311-316.

91. Handling the Hip Capsule with the Anterior Approach: Repair Versus Capsulectomy. Tania A. Ferguson and **Raymond H. Kim**. Anterior Hip Replacement. Springer Nature Switzerland AG, 2022; pp 333-338.

92. Use of Cannabis Does Not Decrease Opioid Consumption in Patients Who Underwent Total Joint Arthroplasty. Jennings JM, McNabb DC, Johnson RM, Brady AC, **Raymond H. Kim**, Dennis DA. *Arthroplasty Today*. 2022 May 10:15:141-146.

93. Combined Medial Collateral Ligament Reconstruction and Polyethylene Exchange for Valgus Instability Following Total Knee Arthroplasty. Kanakamedala AC, Lin CC, Whalen RJ, Hackett TR, Provencher MT, Vidal AF, Rozell JC, **Raymond H. Kim**. *Arthroscopic Tech*. 2024 Feb 15; 13(5): 102942.

*Presentations and Lectures at Regional, National, and International Meetings*

1. “Patellar Complications in Total Knee Arthroplasty”, Mayo Clinic, Rochester, MN, September 2000.
2. “Achilles Tendon Rupture”, Mayo Clinic Sports Medicine Conference, Rochester, MN, November 2000.
3. “Compression Neuropathies of the Upper Extremity”, Mayo Clinic Hand Conference, Rochester, MN, March 2002.
4. “Juvenile Hallux Valgus”, Nemours Children’s Hospital Grand Rounds, Jacksonville, FL, May 2003.
5. “Multiple Hereditary Exostoses”, Nemours Children’s Hospital Grand Rounds, Jacksonville, FL, June 2003.
6. “Pediatric Cervical Spine Injuries”, Mayo Clinic Spine Conference, Rochester, MN, October 2003.

7. "Plate Fixation for Distal Radius Fractures", Mayo Clinic Hand Conference, Rochester, MN, March 2004.
8. "ACL Reconstruction Graft Options", Insall Scott Kelly Institute Grand Rounds, New York, NY, October 12, 2005.
9. "Aseptic Loosening in Total Knee Arthroplasty", Insall Scott Kelly Institute Grand Rounds, New York, NY, November 23, 2005.
10. "Total Knee Arthroplasty for Vagaries of the Knee", Insall Scott Kelly Institute Grand Rounds, New York, NY, February 22, 2006.
11. "Transfusion Avoidance in Total Knee Arthroplasty", Insall Scott Kelly Institute Grand Rounds, New York, NY, May 11, 2006.
12. "DVT Prophylaxis in Total Knee Arthroplasty", Insall Scott Kelly Institute Grand Rounds, New York, NY, June 28, 2006.
13. "Bloodless Surgery", Orthopaedic Surgical Masters Series, New York, NY, June 17, 2006.
14. "Minimally Invasive Total Knee Arthroplasty, Surgical Approaches", Contemporary Techniques in Primary Hip and Knee Arthroplasty, Chicago, IL, July 29, 2006.
15. "DVT Prophylaxis Options in Total Knee Arthroplasty", Contemporary Techniques in Primary Hip and Knee Arthroplasty, Chicago, IL, July 29, 2006.
16. "Minimizing Blood Loss in Total Joint Arthroplasty", Porter Adventist Hospital Medical Conference, Denver, CO, September 21, 2006.
17. "Are You a Candidate for Joint Replacement?" Porter Adventist Hospital Bone and Joint Week, Denver, CO, October 17, 2006.
18. "2-Incision vs. Posterior Approach Total Hip Arthroplasty", Interactive Learning Center, Denver, CO, October 19, 2006.
19. "Minimal Blood Loss Surgery", Interactive Learning Center,

Denver, CO, October 20, 2006.

20. "Blood Loss Management in Total Knee Arthroplasty", Insall Traveling Fellows Conference, Denver, CO, October 26, 2006.
21. "Treatment Options for Knee Pain", Patient Education Seminar, Denver, CO, December 13, 2006.
22. "Blood Management in Total Joint Arthroplasty", University of Colorado School of Medicine Weekly Core Curriculum Conference, Denver, CO, January 31, 2007.
23. "Treatment for Knee Arthritis", Porter Adventist Hospital Patient Education Seminar, Denver, CO, March 19, 2007.
24. "Treatment of Hip Arthritis", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 2, 2007.
25. "Treatment of Knee Arthritis", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 2, 2007.
26. "Minimizing Blood Loss in Total Knee Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 3, 2007.
27. "DVT Prophylaxis in Total Knee Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 3, 2007.
28. "Aseptic Loosening in Total Knee Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 4, 2007.
29. "Total Knee Arthroplasty in Skeletal Dysplasia", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 4, 2007.
30. "Knee Arthritis and Treatment Options", Patient Education

Seminar, Denver, CO, May 17, 2007.

31. "Treatment Options for Hip Arthritis", Porter Adventist Hospital Patient Education Seminar, Denver, CO, May 21, 2007.

32. "Advancements in Knee Replacements", Colorado and Company television appearance, Denver, CO, July 18, 2007.

33. "Mobile Bearing Total Knee Arthroplasty", Atlanta Medical Center Orthopedic Surgery Residents Conference, Atlanta, GA, July 26, 2007.

34. "The Stiff Total Knee Arthroplasty", Atlanta, GA, July 26, 2007.

35. "Wound Complications in Total Knee Arthroplasty", Portsmouth Naval Base Grand Rounds, Norfolk, VA, July 27, 2007.

36. "Advantages of Computer Assisted Surgery", Seoul National University Bundang Hospital, Seoul, Korea, August 16, 2007.

37. "TKA in Skeletal Dysplasias", Han Yang University Hospital, Seoul, Korea, August 16, 2007.

38. "MIS TKA: Tips and Trade-offs", Sigma High Flexion Meeting, Seoul, Korea, August 16, 2007.

39. "Updates in Total Knee Arthroplasty", Porter Adventist Hospital Family Practice Grand Rounds, Denver, CO, August 28, 2007.

40. "Common Orthopaedic Surgeries: Front Row Seats", Ortholink Western Region Business Office Conference, Denver, CO, October 10, 2007.

41. "The New Knee: Advancements in Knee Replacement", Parker Adventist Hospital, Bone and Joint Week, Parker, CO, October 15, 2007.

42. "Vagaries of the Knee: Total Knee Arthroplasty in Skeletal Dysplasias", Insall Traveling Fellows Conference, Denver, CO, October 25, 2006.

43. "Patellar Resurfacing in Total Knee Arthroplasty", Transforming Orthopaedics: Advanced Outcomes and Techniques, Vail, CO, February 2, 2008.
44. "Minimally Invasive Exposure in Total Knee Arthroplasty: More than Just a Gimmick", Transforming Orthopaedics: Advanced Outcomes and Techniques, Vail, CO, February 2, 2008.
45. "Primary Total Hip Arthroplasty: The Basics. Patient Management: Start to Finish." AAOS Instructional Course Lecture, San Francisco, CA, March 6, 2008.
46. "Primary Total Hip Arthroplasty: The Basics. Surgical Exposures." American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Francisco, CA, March 6, 2008.
47. "Revision Total Knee Arthroplasty: Surgical Exposures." American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Francisco, CA, March 9, 2008.
48. "Total Hip Replacement: Before, During, and After Surgery," Porter Adventist Hospital Grand Rounds, Denver, CO, March 26, 2008.
49. "Total Hip Arthroplasty: Start to Finish", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, April 28, 2008.
50. "Cementing Techniques in Total Knee Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, April 29, 2008.
51. "Medical Missions in North Korea", Korean-American Missions Health Council, Littleton, CO, May 22, 2008.
52. "Blood Management in Total Knee Arthroplasty", University of Colorado School of Medicine Weekly Core Curriculum Conference, Aurora, CO, August 20, 2008.

53. "Distal Femur Periprosthetic Fractures", Insall Traveling Fellowship Lecture Series, Brigham and Women's Hospital, Boston MA, October 1, 2008.
54. "Distal Femur Periprosthetic Fractures", Insall Traveling Fellowship Lecture Series, Mt. Carmel New Albany Surgical Hospital, New Albany, OH, October 5, 2008.
55. "Distal Femur Periprosthetic Fractures", Insall Traveling Fellowship Lecture Series, Joint Replacement Surgeons Research Foundation, Mooresville, IN, October 8, 2008.
56. "Distal Femur Periprosthetic Fractures", Knee Surgery Seminar, Pennsylvania Hospital, Philadelphia, PA, October 11, 2008.
57. "Distal Femur Periprosthetic Fractures", Washington University, St. Louis, MO, October 13, 2008.
58. "Distal Femur Periprosthetic Fractures", Insall Traveling Fellowship Lecture Series, Hospital for Special Surgery, New York, NY, October 16, 2008.
59. "Distal Femur Periprosthetic Fractures", Mayo Clinic Orthopaedic Grand Rounds, Rochester, MN, October 20, 2008.
60. "Distal Femur Periprosthetic Fractures", Joint Conference, Rush Medical Center, Chicago, IL, October 22, 2008.
61. "Distal Femur Periprosthetic Fractures", Chairman's Conference, Northwestern Memorial Hospital, Chicago, IL, October, 2008.
62. "Distal Femur Periprosthetic Fractures", Stanford University Grand Rounds, Palo Alto, CA, October 29, 2008.
63. "Custom-Fit Knee Replacements", Porter Adventist Hospital Grand Rounds, Denver, CO, November 7, 2008.
64. "Common Orthopaedic Procedures: Front Row Seats", Porter Adventist Hospital Grand Rounds, Denver, CO, December 5, 2008.

65. "Avoiding Leg Length Inequality in Total Hip Arthroplasty," International Congress for Joint Reconstruction, Orlando, FL, December 11, 2008.
66. "Tibial Osteotomies: Indications, Techniques, Outcomes", International Congress for Joint Reconstruction, Orlando, FL, December 12, 2008.
67. "Revision Total Knee Arthroplasty Stem Fixation: Press Fit or Cement", International Congress for Joint Reconstruction, Orlando, FL, December 13, 2008.
68. "Primary Total Hip Arthroplasty: The Basics. Avoiding Instability." American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, February 26, 2009.
69. "Primary Total Hip Arthroplasty: The Basics. Challenging Cases." American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, February 26, 2009.
70. "Treatment Options for Knee Arthritis", Porter Adventist Hospital Volunteers, Conference, Denver, CO, April 15, 2009.
71. "Wound Complications in Total Knee Arthroplasty", Western Slope Chapter Spring Meeting, Gateway, CO, April 29, 2009.
72. "Clinical Outcomes of Mobile-Bearing Total Knee Arthroplasty", Western Slope Chapter Spring Meeting, Gateway, CO, April 29, 2009.
73. "Surgical Exposures for Total Hip Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 11, 2009.
74. "Avoiding Instability in Total Hip Arthroplasty", Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 11, 2009.
75. "Avoiding Leg-Length Inequality in Total Hip Arthroplasty",

Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 11, 2009.

76. “Avoiding Wound Complications in Total Knee Arthroplasty”, Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 12, 2009.

77. “The Stiff Total Knee Arthroplasty”, Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 12, 2009.

78. “New Technology in Total Knee Arthroplasty: Custom Fit Total Knee Arthroplasty”, Knee and Hip Arthritis Symposium, Wheat Mission Association in America, Pyongyang, North Korea, May 12, 2009.

79. “Polyethylene Performs the Best in Total Hip Arthroplasty”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Chicago, IL, August 7, 2009.

80. “Cement in Total Knee Arthroplasty: Best in the Long Run”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Chicago, IL, August 8, 2009.

81. “Reconstruction of the Acetabulum with a Custom Triflange Component: Indications and Techniques”, Porter Adventist Hospital, Denver, CO, September 18, 2009.

82. “Polyethylene in Total Hip Arthroplasty”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Dallas, TX, October 9, 2009.

83. “Cement in Total Knee Arthroplasty has stood the test of time”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Dallas, TX, October 10, 2009.

84. “Early Clinical Results of Mobile Bearing Revision Total Knee Arthroplasty”, International Society for Technology in Arthroplasty, Big Island, HI, October 22, 2009.

85. “Total Knee Arthroplasty in Skeletal Dysplasia”, International

Society for Technology in Arthroplasty, Big Island, HI, October 24, 2009.

86. “Mobile Bearing Revision Total Knee Arthroplasty: Early Clinical Results”, Insall Travelling Fellows Conference, University of Colorado Denver, Aurora, CO, October 28, 2009.

87. “Avoiding Instability in Primary Total Hip Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 10, 2010.

88. “Interesting Primary Total Hip Arthroplasty Cases”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 10, 2010.

89. “Primary Total Knee Arthroplasty Anesthetic Techniques”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 12, 2010.

90. “Skin Incisions and Surgical Approaches for Primary Total Knee Arthroplasty,” American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 12, 2010.

91. “Primary Total Knee Arthroplasty Cement Techniques”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 12, 2010.

92. “Treatment Options for Knee Arthritis”, Gardens at St. Elizabeth, Denver, CO, June 16, 2010.

93. “Polyethylene in Total Hip Arthroplasty”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Raynham, MA, August 13, 2010.

94. “Cement in Total Knee Arthroplasty”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Raynham, MA, August 14, 2010.

95. “Are you a candidate for knee replacement?” Malley Recreation Center, Englewood, CO, September 9, 2010.

96. “Knee and Hip Arthritis: Evaluation and Treatment”, Arthritis

Foundation, Denver, CO, September 21, 2010.

97. “Surgical Approaches for the Difficult Primary Total Hip Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 24, 2010.

98. “Evaluation of the Painful Non-infected Total Hip Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 24, 2010.

99. “The History of Knee Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 24, 2010.

100. “Limb Alignment and Deformities in Total Knee Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 24, 2010.

101. “PCL in Total Knee Arthroplasty: Save or Substitute?” DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 25, 2010.

102. “Periprosthetic Total Knee Arthroplasty Fractures: Evaluation and Treatment”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Chicago, IL, September 25, 2010.

103. “Mobile Bearings in Primary and Revision Total Knee Arthroplasty”, Marshall University Orthopedic Surgery Grand Rounds, Huntington, WV, October 1, 2010.

104. “Polyethylene Performs the Best in Total Hip Arthroplasty”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Chicago, IL, October 15, 2010.

105. “Cement in Total Knee Arthroplasty has stood the test of time”, DePuy 2<sup>nd</sup> and 3<sup>rd</sup> Year Orthopedic Residents Course, Chicago, IL, October 16, 2010.

106. “The Crunchy Knee: Patellar Crepitus in Total Knee Arthroplasty”, Insall Travelling Fellows Conference, University of Colorado Denver, Aurora, CO, October 26, 2010.

107. "Are you a candidate for joint replacement?" Porter Place, Denver, CO, November 9, 2010.
108. "The Benefits of NSAIDs, Injections, and Exercise", International Congress for Joint Reconstruction, Vail, CO, January 13, 2011.
109. "Polyethylene in Total Hip Arthroplasty", International Congress for Joint Reconstruction, Vail, CO, January 15, 2011.
110. "Primary Total Knee Arthroplasty Anesthetic Techniques", American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, February 17, 2011.
111. "Skin Incisions and Surgical Approaches for Primary Total Knee Arthroplasty", American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, February 17, 2011.
112. "Primary Total Knee Arthroplasty Cement Techniques", American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, February 17, 2011.
113. "Gender Issues in Knee Arthritis", Cool Solutions for Red Hot Topics, Porter Hospital, Denver, CO, March 8, 2011.
114. "Acetabular Deficiency in Total Hip Arthroplasty", International Congress for Joint Reconstruction, Kiawah Island, SC, April 15, 2011.
115. "Total Knee Arthroplasty Bearing Issues: Oxinium, Highly Cross-linked Polyethylene, Vitamin E, Rotating Platform", International Congress for Joint Reconstruction, Kiawah Island, SC, April 16, 2011.
116. "Surgical Treatment for Knee and Hip Arthritis", University of Denver, Denver, CO, April 27, 2011.
117. "What We Have Learned from CAOS in Total Knee Arthroplasty", SIGASCOT, Cagliari, Italy, June 27, 2011.

118. “Total Knee Arthroplasty Implant Selection in Young Patients: a Difficult Decision”, SIGASCOT, Cagliari, Italy, June 27, 2011.

119. “Revision Total Knee Arthroplasty: Take Home Message”, SIGASCOT, Cagliari, Italy, June 28, 2011.

120. “The Crunchy Knee: Patellar Crepitus in Total Knee Arthroplasty”, Italian American Arthroplasty Congress, Catania, Italy, June 29, 2011.

121. “Control-Matched Computational Evaluation of Tendofemoral Contact in Patients with Posterior-Stabilized Total Knee Arthroplasty”, Insall Club, Taormina, Italy, July 1, 2011.

122. “Polyethylene – the Gold Standard in Total Hip Arthroplasty”, Introduction to Hip and Knee Arthroplasty, San Diego, CA, August 12, 2011.

123. “Cement in Total Knee Arthroplasty, the Gold Standard”, Introduction to Hip and Knee Arthroplasty, San Diego, CA, August 13, 2011.

124. “Polyethylene in Total Hip Arthroplasty”, Introduction to Hip and Knee Arthroplasty, Rosemont, IL, September 16, 2011.

125. “Cement in Total Knee Arthroplasty”, Introduction to Hip and Knee Arthroplasty, Rosemont, IL, September 17, 2011.

126. “Understanding the Success and Failures of Total Joint Arthroplasty”, Conference on Orthopedic Joint Failure: What is the Role of Metal or Cement Allergy and How to Determine the Diagnosis, National Jewish Health, Denver, CO, September 22, 2011.

127. “Surgical Approaches for the Difficult Primary Total Hip Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 14, 2011.

128. “Evaluation of the Painful Non-infected Total Hip Arthroplasty”, DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 14, 2011.

129. "The History of Knee Arthroplasty", DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 14, 2011.
130. "Limb Alignment and Extra-articular Deformities in Total Knee Arthroplasty", DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 14, 2011.
131. "PCL in Total Knee Arthroplasty: Save or Substitute?" DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 15, 2011.
132. "Periprosthetic Total Knee Arthroplasty Fractures: Evaluation and Treatment", DePuy 4<sup>th</sup> and 5<sup>th</sup> Year Orthopedic Residents Course, Rosemont, IL, October 15, 2011.
133. "Management of Total Knee Arthroplasty Instability", Revision Total Knee Arthroplasty, VuMedi, October 17, 2011.
134. "What We Do Know and Don't Know about Total Knee Arthroplasty", American Association of Hip and Knee Surgeons Educational Symposium, Dallas, TX, November 4, 2011.
135. "Measured Resection and Gap Balancing: Achieving a Balanced Total Knee Arthroplasty", Mahwah, NJ, November 18, 2011.
136. "Bearing Surface Options in Total Knee Arthroplasty", International Congress for Joint Reconstruction, Vail, CO, January 13, 2012.
137. "The Crunchy Knee: Patellar Crepitus in Total Knee Arthroplasty," Marshall University Orthopedic Surgery Grand Rounds, Huntington, WV, January 27, 2012.
138. "Revision Total Knee Arthroplasty: Constraint and Intraoperative Flexibility", AAOS Stryker, San Francisco, CA, February 8, 2012.
139. "Accommodating the High-Demand Total Knee Arthroplasty Patient", AAOS Stryker, San Francisco, CA, February 8, 2012.

140. “Knee Bearing Technology: in Contrast to the Hip”, American Academy of Orthopaedic Surgeons Stryker Booth, San Francisco, CA, February 9, 2012.

141. “The Future of Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Stryker, San Francisco, CA, February 9, 2012.

142. “Mid-Flexion Instability in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Stryker Booth, San Francisco, CA, February 9, 2012.

143. “Primary Total Knee Arthroplasty: Skin Incisions and Surgical Approaches”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Francisco, CA, February 10, 2012.

144. “Cementing a Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Francisco, CA, February 10, 2012.

145. “Simpler Solutions in Revision Total Knee Arthroplasty: Two Assembly Revision”, New Innovations in Joint Arthroplasty, Aurora, Colorado, March 2, 2012.

146. “Is Ceramic on Polyethylene the Bearing Surface for All?” International Congress for Joint Reconstruction, Kiawah Island, SC, April 13, 2012.

147. “Total Knee Arthroplasty Bearing Issues: Oxidized Zirconium, Highly Cross-Linking, Mobile Bearings”, International Congress for Joint Reconstruction, Kiawah Island, SC, April 14, 2012.

148. “Risk Factors for Infection in Total Joint Arthroplasty”, International Congress for Joint Reconstruction, San Diego, CA, April 27, 2012.

149. “Highly Cross-linked Polyethylene Update in Total Hip Arthroplasty”, Marshall University Arthroplasty Course, White Sulphur Springs, WV, May 18, 2012.

150. “Approaches to Total Knee Arthroplasty”, Marshall University

Arthroplasty Course, White Sulphur Springs, WV, May 19, 2012.

151. “Blood Loss after Total Joint Arthroplasty”, Marshall University Arthroplasty Course, White Sulphur Springs, WV, May 19, 2012.

152. “Patient-Specific Instrumentation in Total Knee Arthroplasty”, Marshall University Arthroplasty Course, White Sulphur Springs, WV, May 19, 2012.

153. “New Bearing Surface Options in Total Knee Arthroplasty”, Marshall University Arthroplasty Course, White Sulphur Springs, WV, May 20, 2012.

154. “The Stiff Total Knee Arthroplasty”, Marshall University Arthroplasty Course, White Sulphur Springs, WV, May 20, 2012.

155. “Is Ceramic on Polyethylene the Total Hip Arthroplasty Bearing Surface for All?” Stryker Orthopedics Grand Rounds, Mahwah, NJ, July 10, 2012.

156. “Understanding Anatomy and Alignment in Total Knee Arthroplasty”, Challenging the Norms in Total Knee Arthroplasty, Charlotte, NC, July 27, 2012.

156. “The Next Generation of Joint Replacements for a New Generation of Patients”, Guest Lecturer for Colorado Society of Advanced Practice Nurses, Denver, CO, August 1, 2012.

157. “Polyethylene – the Gold Standard in Total Hip Arthroplasty”, Introduction to Hip and Knee Arthroplasty for 2<sup>nd</sup> and 3<sup>rd</sup> Year Resident Program, Atlanta, GA, September 14, 2012.

158. “Cement in Total Knee Arthroplasty”, Introduction to Hip and Knee Arthroplasty for 2<sup>nd</sup> and 3<sup>rd</sup> Year Resident Program, Atlanta, GA, September 15, 2012.

159. “Understanding Alignment in Total Knee Arthroplasty”, Challenging the Norms in Total Knee Arthroplasty, San Francisco, CA, September 28, 2012.

160. “Hot Topics in Total Knee Arthroplasty”, Challenging the Norms in Total Knee Arthroplasty, San Francisco, CA, September 28, 2012.

161. “Surgical Approaches for the Difficult Primary Total Hip Arthroplasty”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 12, 2012.

162. “Evaluation of the Painful Total Hip Arthroplasty”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 12, 2012.

163. “The History of Knee Arthroplasty”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 12, 2012.

164. “Limb Alignment and Extra-Articular Deformities of the Knee”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 12, 2012.

165. “Posterior Cruciate Ligament: Save or Substitute in Total Knee Arthroplasty”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 13, 2012.

166. “Periprosthetic Fractures in Total Knee Arthroplasty – Evaluation and Treatment”, Advanced Concepts of Joint Arthroplasty for the Senior Resident, Rosemont, IL, October 13, 2012.

167. “The Benefits of a Joint Registry”, 2012 Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

168. “Is Metal Allergy a Real Problem in Total Knee Arthroplasty?” Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

169. “Intraoperative and Postoperative Risk Factors for Infection in Total Joint Arthroplasty”, Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.

170. “The Anterolateral Approach in Total Hip Arthroplasty”, Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 20, 2012.
171. “Vitamin E Polyethylene in Total Hip Arthroplasty”, Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 21, 2012.
172. “Fully Porous-Coated Stems in Revision Total Hip Arthroplasty”, Insall Scott Kelly Sports Medicine and Total Knee and Hip Course, New York, NY, October 21, 2012.
173. “Clinical Experience with a Single Radius Total Knee Arthroplasty”, American Association of Hip and Knee Surgeons, Dallas, TX, November 2, 2012.
174. “Squeaking in Total Hip Arthroplasty: a Ceramic Issue or Not?” American Association of Hip and Knee Surgeons, Dallas, TX, November 2, 2012.
175. “Why Consider Medical Missions?” Marshall University Orthopaedic Grand Rounds, Huntington, WV, February 22, 2013.
176. “Gap Balancing in Mobile Bearing Unicompartamental Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Chicago, IL, March 19, 2013.
177. “Skin Incisions and Surgical Approaches in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Chicago, IL, March 20, 2013.
178. “Cementless and Cemented Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Chicago, IL, March 20, 2013.
179. “Evaluation of the Painful Total Hip Arthroplasty”, Operation Walk Total Joint Symposium, Panama City, Panama, April 11, 2013.
180. “Managing Anti-platelet Medications and Other Vascular Considerations in Total Joint Arthroplasty”, International Congress

for Joint Reconstruction South/RLO Course, Charleston, SC, May 10, 2013.

181. “Benefits of Using ‘Round’ Knees”, International Congress for Joint Reconstruction South/RLO Course, Charleston, SC, May 10, 2013.

182. “Periprosthetic Fractures of the Knee”, International Congress for Joint Reconstruction South/RLO Course, Charleston, SC, May 11, 2013.

183. “My Top 4 Journal of Arthroplasty Articles”, International Congress for Joint Reconstruction West, Napa, June 6, 2013.

184. “Preventing Surgical Site Infection in Hip and Knee Arthroplasty”, International Congress for Joint Reconstruction West, Napa, June 7, 2013.

185. “Always a Posterior Stabilized Total Knee Arthroplasty”, International Congress for Joint Reconstruction West, Napa, CA, June 7, 2013.

186. “Primary Total Knee Arthroplasty: A Discussion of Clinical Issues”, Greenbay, WI, June 19, 2013.

187. “Total Knee Cases”, University of Colorado Resident Course, Denver, CO, August 23, 2013.

188. “Total Hip Cases”, University of Colorado Resident Course, Denver, CO, August 24, 2013.

189. “Interesting Total Knee Cases”, Grand Junction, CO, August 29, 2013.

190. “Clinical Outcomes with a Single-Radius Total Knee Arthroplasty”, Santa Monica, CA, September 28, 2013.

191. “Gap Balancing in Total Knee Arthroplasty”, Santa Monica, CA, September 28, 2013.

192. “The Benefits of a Total Joint Registry”, International Congress for Joint Reconstruction East, New York, NY, October 5, 2013.

193. “Surgical Site Infections in Total Hip and Knee Arthroplasty”, International Congress for Joint Reconstruction East, New York, NY, October 5, 2013.

194. “Avoiding Surgical Site Infections”, International Congress for Joint Reconstruction East, New York, NY, October 5, 2013.

195. “Anterolateral Approach in Total Hip Arthroplasty”, International Congress for Joint Reconstruction East, New York, NY, October 6, 2013.

196. “Primary Total Hip Arthroplasty: Acetabulum”, International Congress for Joint Reconstruction East, New York, NY, October 6, 2013.

197. “Modern Cross-linked Polyethylene in Total Hip Arthroplasty”, International Congress for Joint Reconstruction East, New York, NY, October 6, 2013.

198. “Monoblock Revision Femoral Stems in Revision Total Hip Arthroplasty”, International Congress for Joint Reconstruction East, New York, NY, October 6, 2013.

199. “Outcomes of Osteotomies and Unicompartamental Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Advanced Surgical Techniques for Management of Knee Arthritis, Rosemont, IL, October 11, 2013.

200. “Video Technique Pearls: Posterior Approach in Total Hip Arthroplasty”, International Congress for Joint Reconstruction, San Diego, CA, October 18, 2013.

201. “Is There a Role for Computer Navigation in Total Knee Arthroplasty”, International Congress for Joint Reconstruction, San Diego, CA, October 18, 2013.

202. “Principles of Bone Resection in Total Knee Arthroplasty:

Measured Resection and Gap Balancing”, International Congress for Joint Reconstruction Instructional Course Lecture at the Chinese Orthopaedic Association, Beijing, China, November 7, 2013.

203. “Skin Incisions and Surgical Exposures in Total Knee Arthroplasty”, International Congress for Joint Reconstruction Instructional Course Lecture at the Chinese Orthopaedic Association, Beijing, China, November 7, 2013.

204. “Primary Total Hip Arthroplasty – Acetabulum: Preparation, Positioning, Fixation”, International Congress for Joint Reconstruction Instructional Course Lecture at the Chinese Orthopaedic Association, Beijing, China, November 7, 2013.

205. “How Do I Do A Primary Total Hip Arthroplasty”, International Congress for Joint Reconstruction Instructional Course Lecture at the Chinese Orthopaedic Association, Beijing, China, November 7, 2013.

206. “Difficult Total Knee Arthroplasty and Total Knee Arthroplasty Revision Cases”, International Congress for Joint Reconstruction Instructional Course Lecture at the Chinese Orthopaedic Association, Beijing, China, November 7, 2013.

207. “The History of Knee Arthroplasty”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 14, 2013.

208. “Surgical Exposures in Total Knee Arthroplasty”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 14, 2013.

209. “Cementing a Total Knee Arthroplasty”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 14, 2013.

210. “How to Perform a Total Knee Arthroplasty”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 14, 2013.

211. “The Infected Total Knee Arthroplasty: Diagnosis and

Management”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 16, 2013.

212. “VTE Prophylaxis in Total Joint Arthroplasty”, Hip and Knee Arthroplasty in East Africa: Maximizing Patient Benefit, Tenwek Hospital, Bomet, Kenya, November 16, 2013.

213. “Surgical Exposures for Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 11, 2014.

214. “Cemented and Cementless Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 11, 2014.

215. “Removal of Components in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 12, 2014.

216. “Articulating Antibiotic Spacers for Infected Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, New Orleans, LA, March 12, 2014.

217. “Gap Balancing in Total Knee Arthroplasty”, Sixth Annual Emily Berend Adult Reconstruction Symposium, Duke University, Durham, NC, April 25, 2014.

218. “Removal of Implants: Video Techniques”, Sixth Annual Emily Berend Adult Reconstruction Symposium, Duke University, Durham, NC, April 25, 2014.

219. “Anterior Supine Minimally Invasive Total Hip Arthroplasty”, Sixth Annual Emily Berend Adult Reconstruction Symposium, Duke University, Durham, NC, April 26, 2014.

220. “Live Cadaveric Demonstration: Anterior Supine Total Hip Arthroplasty”, Sixth Annual Emily Berend Adult Reconstruction Symposium, Duke University, Durham, NC, April 26, 2014.

221. "Psychosocial Challenges in Total Joint Arthroplasty", International Congress for Joint Reconstruction South/RLO Course, Charleston, SC, May 15, 2014.
222. "Cementless Total Knee Arthroplasty", International Congress for Joint Reconstruction South/RLO Course, Charleston, SC, May 15, 2014.
223. "The Post-"Oop" Hip and Knee: Management of Total Joint Complications" Marshall University Orthopaedic Grand Rounds, Huntington, WV, May 30, 2014.
224. "Treatment of Hip and Knee Arthritis", Mile High Rotary Club, Denver, CO, December 3, 2014.
225. "Total Knee Arthroplasty: Bag of Tricks, Learning from the Masters", International Congress for Joint Reconstruction, Vail, CO, January 15, 2015.
226. "Total Hip Arthroplasty: Bag of Tricks, Learning from the Masters", International Congress for Joint Reconstruction, Vail, CO, January 17, 2015.
227. "Reducing Perioperative Pain In Total Joint Replacement", 7<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 6, 2015.
228. "What it Takes to Be a Good Junior Partner", 7<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 7, 2015.
229. "The Smith-Peterson Anterior Approach in Total Hip Arthroplasty", 7<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 7, 2015.
230. "Management of Total Hip Arthroplasty Dislocation", 7<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 8, 2015.
231. "Implant Options in Total Knee Arthroplasty", American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las

Vegas, NV, March 25, 2015.

232. “Removal of Components in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, March 26, 2015.

233. “Articulating Antibiotic Spacers for Infected Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, March 26, 2015.

234. “Why I Gap Balance in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Symposium, Las Vegas, NV, March 27, 2015.

235. “Surgical Exposures for Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, March 27, 2015.

236. “Cemented and Cementless Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, March 27, 2015.

237. “Direct Anterior Approach Total Hip Arthroplasty: Fad or Here to Stay?”, World Arthroplasty Conference, Paris, France, April 17, 2015.

238. “Enhanced Recovery Surgical Techniques for Total Hip Arthroplasty”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, July 22, 2015.

239. “Total Knee Arthroplasty Alignment: What is the Target?”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, July 23, 2015.

240. “Direct Anterior Approach Total Hip Arthroplasty is Superior to Mini Posterior Approach”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, July 24, 2015.

241. “Direct Anterior Approach: Cadaver Demonstration”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO,

August 21, 2015.

242. “Post-operative Management of Total Joint Arthroplasty Patients”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 21, 2015.

243. “Role for Computer Navigation in Total Knee Arthroplasty in 2015”, International Congress for Joint Reconstruction, Newport Beach, CA, September 18, 2015.

244. “Hinging on Failure: Last Resort Options in Revision Total Knee Arthroplasty”, International Congress for Joint Reconstruction, Newport Beach, CA, September 19, 2015.

245. “Revision Total Knee Arthroplasty Cases”, International Congress for Joint Reconstruction, Newport Beach, CA, September 19, 2015.

246. “Complex Primary Total Knee Arthroplasty: Case-based Presentations”, International Congress for Joint Reconstruction, New York, NY, October 2, 2015.

247. “The Balanced Total Knee Arthroplasty through a Measured Resection Technique”, International Congress for Joint Reconstruction, New York, NY, October 2, 2015.

248. “Metal Allergy in Total Knee Arthroplasty: Does it Really Exist?”, International Congress for Joint Reconstruction, New York, NY, October 2, 2015.

249. “Accelerated Discharge Total Joint Arthroplasty”, International Congress for Joint Reconstruction, New York, NY, October 3, 2015.

250. “Giving Back: Operation Walk”, International Congress for Joint Reconstruction, New York, NY, October 3, 2015.

251. “Standard Table Anterior Approach Total Hip Arthroplasty: Tips and Pearls”, International Congress for Joint Reconstruction, New York, NY, October 4, 2015.

252. “Concerns with Metal in Total Hip Arthroplasty”, International Congress for Joint Reconstruction, New York, NY, October 4, 2015.
253. “Complications with Total Hip Arthroplasty”, International Congress for Joint Reconstruction, New York, NY, October 4, 2015.
254. “Differential Diagnosis for Knee Pain”, American Association of Hip and Knee Surgeons, Dallas, TX, November 6, 2015.
255. “Knee Arthroplasty and Osteotomy Techniques: A Case Based Discussion”, American Association of Hip and Knee Surgeons, Dallas, TX, November 6, 2015.
256. “Perioperative Management of Total Joint Arthroplasty”, American Association of Hip and Knee Surgeons, Dallas, TX, November 6, 2015.
257. “Postoperative Complications following Total Hip Arthroplasty”, American Association of Hip and Knee Surgeons, Dallas, TX, November 6, 2015.
258. “Live Surgery: Primary Unicondylar Knee Arthroplasty”, Moderator, 8<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 14, 2016.
259. “Total Knee Arthroplasty: Bag of Tricks, Learning from the Masters”, 8<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 14, 2016.
260. “Total Hip Arthroplasty: Bag of Tricks, Learning from the Masters”, 8<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 17, 2016.
261. “Reducing Perioperative Pain in Total Joint Arthroplasty”, 8<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 29, 2016.
262. “How to Deal with Complications in Total Joint Arthroplasty”, 8<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 30, 2016.

263. “The Smith-Petersen Anterior Approach”, 8<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 30, 2016.
264. “Management of Total Hip Arthroplasty Dislocation”, 8<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 31, 2016.
265. “Implant Options in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Orlando, FL, March 1, 2016.
266. “Revision Total Knee Arthroplasty Essentials: A Case-based Approach”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Orlando, FL, March 2, 2016.
267. “The Urban Legends of Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Orlando, FL, March 3, 2016.
268. “Tourniquetless Total Knee Arthroplasty”, International Congress for Joint Reconstruction, Charleston, SC, May 20, 2016.
269. “Anticoagulants and Deep Vein Thrombosis Management in Total Joint Arthroplasty”, International Congress for Joint Reconstruction, Charleston, SC, May 20, 2016.
270. “Bearing Surfaces in Total Hip Arthroplasty”, International Congress for Joint Reconstruction, Charleston, SC, May 21, 2016.
271. “Enhanced Recovery Techniques in Total Hip Arthroplasty”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, August 10, 2016.
272. “Total Hip Arthroplasty Concerns: a Case Discussion”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, August 11, 2016.
273. “Dual Mobility Total Hip Arthroplasty: The Way of the Future”, Pan Pacific International Congress for Joint Reconstruction, Big

Island, HI, August 12, 2016.

274. “My Top 5 Moves in Revision Total Knee Arthroplasty”, Pan Pacific International Congress for Joint Reconstruction, Big Island, HI, August 13, 2016.

275. “Navigation in Primary Total Knee Arthroplasty”, Advanced Concepts in Hip and Knee Arthroplasty, Korean Orthopedic Association, Seoul, Korea, October 20, 2016.

276. “Revision Total Knee Arthroplasty: Steps for Success”, Advanced Concepts in Hip and Knee Arthroplasty, Korean Orthopedic Association, Seoul, Korea, October 20, 2016.

277. “Direct Anterior Approach for Primary Total Hip Arthroplasty”, Advanced Concepts in Hip and Knee Arthroplasty, Korean Orthopedic Association, Seoul, Korea, October 20, 2016.

278. “Differential Diagnosis for Knee Pain”, American Association of Hip and Knee Surgeons, Dallas, TX, November 11, 2016.

279. “Total Knee Arthroplasty: Bag of Tricks, Learning from the Masters”, Moderator, 9<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 13, 2017.

280. “Total Hip Arthroplasty: Bag of Tricks, Learning from the Masters”, Moderator, 9<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 14, 2017.

281. “Reducing Perioperative Pain in Total Joint Arthroplasty”, 9<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 27, 2017.

282. “How to Deal with Complications in Total Joint Arthroplasty”, 9<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 28, 2017.

283. “Management of Total Hip Arthroplasty Dislocation”, 9<sup>th</sup>

Annual Joint Replacement Fellows Symposium, Vail, CO, January 28, 2017.

284. “Implant Options in Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, March 15, 2017.

285. “The Urban Legends of Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, March 17, 2016.

286. “What’s New in Total Hip Arthroplasty?”, Vail Valley Medical Center Lecture Series, Vail, CO, March 23, 2017.

287. “Diagnosis and Treatment of Knee and Hip Arthritis”, Friends of Vail Valley Medical Center Lecture Series, Vail, CO, June 20, 2017.

288. “Diagnosis and Treatment of Knee and Hip Arthritis”, Friends of Vail Valley Medical Center Lecture Series, Gypsum, CO, June 21, 2017.

289. “Total Knee Implant Design: Cruciate Retaining versus Posterior Stabilized”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Denver, CO, August 18, 2017.

300. “Total Joint Post-operative Management: Pain Management, Minimizing Length of Stay, Outpatient Total Joint Replacement”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Denver, CO, August 19, 2017.

301. “Enhancing Recovery after Total Knee Arthroplasty: Tourniquet-less Surgery”, Vail Scientific Summit, Vail, CO, August 25, 2017.

302. “Outpatient Direct Anterior Total Hip Arthroplasty – Live Surgery”, 6<sup>th</sup> Annual Direct Anterior Approach Hip Course, International Congress for Joint Reconstruction, Houston, TX, October 20, 2017.

303. “Total Knee Arthroplasty: Bag of Tricks, Learning from the Masters”, Moderator, 10<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 19, 2018.

304. “Hip Preservation”, Moderator, 10<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 20, 2018.

305. “Enhanced Recovery and Outpatient Total Joint Arthroplasty”, Moderator, 10<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 21, 2018.

306. “Starting a New Practice – All Over Again”, 10<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 9, 2018.

307. “Dealing with Complications”, 10<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 10, 2018.

308. “Managing Total Hip Arthroplasty Instability”, 10<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 10, 2018.

309. “Direct Anterior Total Hip Arthroplasty: Fad or Here to Stay”, 2<sup>nd</sup> World Arthroplasty Congress, Rome, Italy, April 19, 2018.

310. “Enhancing Recovery: Tourniquet-less Total Knee Arthroplasty”, 2<sup>nd</sup> World Arthroplasty Congress, Rome, Italy, April 21, 2018.

311. “Real-Life Orthopaedics”, Panel Member, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 21, 2018.

312. “Tourniquetless Total Knee Arthroplasty”, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 21, 2018.

313. “Challenging Primary Total Knee Arthroplasty Cases”, Panel Member, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 22, 2018.

314. “Stiffness in Total Knee Arthroplasty”, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 22, 2018.
315. “The Approach Debate in Total Hip Arthroplasty”, Moderator, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 23, 2018.
316. “Total Knee Implant Designs: Cruciate Retaining versus Posterior Stabilized”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 17, 2018.
317. “Post-Operative Management: Pain Management, Length of Stay, Outpatient Total Joint Arthroplasty”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 18, 2018.
318. “Clinician’s Perspective on Use of Biologics and Cell Therapy in Daily Practice”, Moderator, Fourth Annual Vail Scientific Summit, Vail, CO, August 21, 2018.
319. “Why I Prefer Private Practice”, 2018 International Congress for Joint Reconstruction 7<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, September 27, 2018.
320. “My Wound Care and Prevention of Infection Protocol for Total Hip Arthroplasty”, 2018 International Congress for Joint Reconstruction 7<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, September 27, 2018.
321. “The Acetabulum in Total Hip Arthroplasty”, Moderator, 2018 International Congress for Joint Reconstruction 7<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, September 28, 2018.
322. “Leg Length and Offset Inequality in Total Hip Arthroplasty”, 2018 International Congress for Joint Reconstruction 7<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, September 28, 2018.
323. “Enhanced Recovery in Total Joint Arthroplasty”, Moderator,

2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 11, 2018.

324. “Outpatient Total Joint Arthroplasty: Institutional Preparation”, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 11, 2018.

325. “Tips for Evaluation of the Young Painful Hip”, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 12, 2018.

326. “Anterior Approach Total Hip Arthroplasty: Video Tips to Optimize this Approach”, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 12, 2018.

327. “Advanced Wound Management for Total Hip Arthroplasty”, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 12, 2018.

328. “Infection Prevention in Total Joint Arthroplasty”, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 13, 2018.

329. “Case-Based Presentations in Revision Total Knee Arthroplasty”, Panel Member, 2018 International Congress for Joint Reconstruction East – Insall Scott Kelly Hip and Knee Course, New York, NY, October 13, 2018.

330. “What Keeps Physician Assistants Up at Night?” Panel Member, 11<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 17, 2019.

331. “Minimizing Risk Factors for Infection in Total Joint Arthroplasty”, 11<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 18, 2019.

332. “Hip Preservation” Moderator, 11<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 19, 2019.

333. “Enhanced Recovery and Outpatient Total Joint Arthroplasty”, 11<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 20, 2019.
334. “Starting a New Total Joint Practice – All Over Again” - 11<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 8, 2019.
335. “How to Deal with Complications”, 11<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 9, 2019.
336. “Management of Total Hip Arthroplasty Dislocation”, 11<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 9, 2019.
337. “Outpatient Total Joint Arthroplasty: The Protocols and Pathways that Make it Work”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Las Vegas, NV, March 12, 2019.
338. “ADAPTABLE: The Next Generation Direct Anterior Approach Tool to Give you Back Control”, American Academy of Orthopaedic Surgeons DJO Surgical Booth, Las Vegas, NV, March 13, 2019.
339. “Outpatient Total Joint Arthroplasty”, American Academy of Orthopaedic Surgeons DJO Surgical Booth, Las Vegas, NV, March 13, 2019.
340. “ADAPTABLE: The Next Generation Direct Anterior Approach Tool to Give you Back Control”, American Academy of Orthopaedic Surgeons DJO Surgical Booth, Las Vegas, NV, March 14, 2019.
341. “Economics of Total Joint Arthroplasty”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 29, 2019.
342. “Do Knee Kinematics Matter?” Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.
343. “Is Cementless Knee Ready for Primetime?” Moderator, DJO

Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

344. “Complex Primary Knee Replacement”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

345. “Unicompartmental Knee Replacement”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

346. “The Future of Outpatient Total Joint Arthroplasty”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

347. “Which Hip Arthroplasty Approach is Best?” Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

348. “Simplifying the Anterior Approach to the Hip”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

349. “Revision Hip Arthroplasty Pearls”, Moderator, DJO Surgical Masterminds Roundtable, Las Vegas, NV, March 30, 2019.

350. “Don’t Use the HANA Table... I Need to Feel the Ankles!” Anterior Hip Foundation, Las Vegas, NV, April 26, 2019.

351. “Tourniquetless Knee Replacement”, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 27, 2019.

352. “Challenging Total Knee Arthroplasty Cases”, Panelist, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 28, 2019.

353. “Stiffness in Total Knee Arthroplasty”, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 28, 2019.

354. “The Total Hip Arthroplasty Approach Debate”, Moderator, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 29, 2019.

355. “Instability in Total Hip Arthroplasty”, International Congress for Joint Reconstruction South Hip and Knee Course, Key Largo, FL, June 29, 2019.

356. “Total Knee Arthroplasty Implant Design”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 16, 2019.

357. “Post-Operative Management: Pain, Length of Stay”, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 17, 2019.

358. “Life After Residency, Adult Reconstruction and Beyond”, Moderator, Rocky Mountain Orthopaedic Resident Arthroplasty Course, Aurora, CO, August 17, 2019.

359. “Biology versus Implants Debate: Pro Implants”, 5<sup>th</sup> Annual Vail Scientific Summit, Advances in Regenerative Medicine, Vail, CO, August 27, 2019.

360. “Why the Future of Total Knee Arthroplasty Includes Computer Navigation”, American Academy of Orthopaedic Surgeons Innovative Surgical Techniques in Knee Arthroplasty: Early Intervention to Revision, Rosemont, IL, September 27, 2019.

361. “Intraoperative Patellar Tendon Disruption: Avoidance and Management”, American Academy of Orthopaedic Surgeons Innovative Surgical Techniques in Knee Arthroplasty: Early Intervention to Revision, Rosemont, IL, September 27, 2019.

362. “Safely Selecting Patients for Outpatient Joint Replacement”, American Academy of Orthopaedic Surgeons Innovative Surgical Techniques in Knee Arthroplasty: Early Intervention to Revision, Rosemont, IL, September 27, 2019.

361. “Why I Prefer Private Practice”, 2019 International Congress for Joint Reconstruction 8<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, October 17, 2019.

362. “My Wound Care and Prevention of Infection”, 2019 International Congress for Joint Reconstruction 8<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, October 17, 2019.
363. “Direct Anterior Total Hip Arthroplasty – Live Surgery”, Moderator, 2019 International Congress for Joint Reconstruction 8<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, October 17, 2019.
364. “Leg Length Inequality and Offset in Total Hip Arthroplasty”, 2019 International Congress for Joint Reconstruction 8<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, October 19, 2019.
365. “Infection Prevention Symposium”, 2019 International Congress for Joint Reconstruction 8<sup>th</sup> annual Direct Anterior Approach Hip Course, Houston, TX, October 19, 2019.
366. “Outpatient Arthroplasty: Providing Value to Surgeons in the Paradigm Shift of 2020”, Moderator, DJO Surgical Educational Symposium, American Association of Hip and Knee Surgeons, Dallas, TX, November 8, 2019.
367. “Smart Technologies: Total Joint Solutions that Enable Hyper-Efficiency in the Ambulatory Surgery Center”, DJO Surgical Educational Symposium, American Association of Hip and Knee Surgeons, Dallas, TX, November 8, 2019.
368. “Avoiding Complications in Total Knee Arthroplasty”, Panel member, Orthopaedic Summit: Evolving Techniques 2019, Las Vegas, NV, December 12, 2019.
329. “Learn From the Literature: You Don’t Always Need to Resurface the Patella in Total Knee Arthroplasty”, Orthopaedic Summit: Evolving Techniques 2019, Las Vegas, NV, December 12, 2019.
330. “Time to Challenge the Experts of Total Knee Arthroplasty: Case Presentations”, Panel member, Orthopaedic Summit: Evolving Techniques 2019, Las Vegas, NV, December 12, 2019.

331. “Cruciate Retaining vs. Posterior Stabilized vs. Medial Stabilized Total Knee Arthroplasty”, Moderator, Orthopaedic Summit: Evolving Techniques 2019, Las Vegas, NV, December 12, 2019.
332. “Same Day Arthroplasty: Best Practices and Economic Drivers”, 12<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 18, 2020.
333. “A Total Hip Arthroplasty Solution: ADAPTABLE, Empowr Acetabular and TaperFill”, Moderator, 12<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 18, 2020.
334. “Enhanced Recovery and Outpatient Total Joint Arthroplasty”, Moderator, 12<sup>th</sup> Annual Winter Hip and Knee Course, International Congress for Joint Reconstruction, Vail, CO, January 19, 2020.
335. “Outpatient Total Joint Arthroplasty: Trends, Unmet Needs, Patient Selection, Protocols”, Moderator, Ahead of the Curve: Inside the Outpatient Programs and Technologies of Modern THA and TKA, Las Vegas, NV, Feb 21, 2020.
336. “Knee and Hip Replacements in 2020”, The Steadman Philippon Research Institute Scientific Symposium at Mar-a-Lago, Palm Beach, FL, March 5, 2020.
337. “Ask the Expert: Tips and Tricks for Hip and Knee Arthroplasty” DJO Fellows Education Hour, WebEx, May 15, 2020.
338. “Optimizing the Peri-Op Protocol in Total Hip Arthroplasty: We Can Get it Right, Let Me Show You What I Do” Orthopaedic Summit Evolving Techniques, December 11, 2020.
339. “Safe Passage for All Patients: Our ASC TKA Protocol, We Have Been Doing it in Vail for Years” Orthopaedic Summit Evolving Techniques, December 12, 2020.
340. “‘Robotics-Lite’: Computer Navigation in Total Knee Arthroplasty is the Right Technology for Your ASC” Orthopaedic

Summit Evolving Techniques, December 12, 2020.

341. “Advice to Fellows”, DJO 2<sup>nd</sup> Annual Fellows Course, Austin, TX, April 9, 2021.

342. “Stiffness in Total Knee Arthroplasty” ICJR South, Key Largo, FL, April 15, 2021.

343. “Same-Day Total Hip Arthroplasty: What are the Keys?” World Arthroplasty Congress, Virtual Congress, April 23, 2021.

344. “I’m Struggling for Exposure: Tips and Tricks for the Difficult Knee”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, September 3, 2021.

345. “Avoiding ER Visits and Readmissions in the Era of Outpatient Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, San Diego, CA, September 3, 2021.

346. “Optimized Protocols are Critical to Success: Patient Selection, Anesthesia, and Surgical Considerations”, American Association of Hip and Knee Surgeons, Dallas, TX, November 12, 2021.

347. “The EMPOWR System in the Ambulatory Surgery Center”, American Association of Hip and Knee Surgeons, Dallas, TX, November 12, 2021.

348. “Outpatient Total Joint Arthroplasty and ADAPTABLE”, American Academy of Orthopaedic Surgeons, March 23, 2022.

349. “I’m Struggling for Exposure: Tips and Tricks for the Difficult Knee”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Chicago, IL, March 25, 2022.

350. “Avoiding ER Visits and Readmissions in the Era of Outpatient Total Knee Arthroplasty”, American Academy of Orthopaedic Surgeons Instructional Course Lecture, Chicago, IL, March 25, 2022.

351. “Orthopedic Care Partners Outpatient Total Joint Replacement

Symposium: Keys to Success”, Virtual symposium, April 28, 2022.

352. “Essential Program Elements for Outpatient Total Joint Arthroplasty”, International Congress for Joint Reconstruction, Vail, CO, January 15, 2023.

353. “Starting a New Total Joint Practice – All Over Again” - 15<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 3, 2023.

354. “How to Deal with Complications”, 15<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 4, 2023.

355. “Management of Total Hip Arthroplasty Dislocation”, 15<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, February 5, 2023.

356. “Knee Replacements in 2023 and the Role of Biologics to Improve Outcomes”, The Steadman Philippon Research Institute Scientific Symposium at Mar-a-Lago, Palm Beach, FL, February 16, 2023.

357. “Compaction Stem Cases in THA”, April 1, 2023, DJO 4<sup>th</sup> Annual Fellows Course, Austin TX, April 1, 2023.

358. “Employing Technology Efficiently and Cost-Effectively in Outpatient Total Joint Arthroplasty”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, May 11, 2023.

359. “Perioperative Issues in Outpatient Total Joint Arthroplasty”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, May 11, 2023.

360. “Tourniquet-less Total Knee Arthroplasty: Techniques for the Ambulatory Surgery Center”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, May 12, 2023.

361. “Building a Team is Critical to Outpatient Total Joint Arthroplasty”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, May 12, 2023.

362. “Pneumatic Instruments for Femoral Prep and Insertion in Total Hip Arthroplasty”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, May 13, 2023.

363. “Compaction Collared Stem Cases in Total Hip Arthroplasty”, American Association of Hip and Knee Surgeons, Dallas, TX, November 2, 2023.

364. “Getting Your Group’s ‘House in Order’ to Maximize Its Valuation”, International Orthopedic Education Network Vail Arthroplasty Course, Vail, CO, January 11, 2024.

365. “The Team Approach to a Successful Ambulatory Surgery Center”, International Orthopedic Education Network Vail Arthroplasty Course, Vail, CO, January 12, 2024.

366. “Posterior Stabilized Total Knee Arthroplasty: Tried and True”, International Orthopedic Education Network Vail Arthroplasty Course, Vail, CO, January 13, 2024.

367. “Starting a New Total Joint Practice – All Over Again”, 16<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 26, 2024.

368. “The Post-“Oop” Total Joint: Dealing with Complications”, 16<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 27, 2024.

369. “Management of Total Hip Arthroplasty Dislocation”, 16<sup>th</sup> Annual Joint Replacement Fellows Symposium, Vail, CO, January 28, 2024.

370. “Compaction Collared Stem Cases in THA”, American Academy of Orthopaedic Surgeons, San Francisco, CA, February 14, 2024.

371. “Is Self-Rehabilitation Enough After Arthroplasty?”, World Arthroplasty Congress, Madrid, Spain, April 18, 2024.

372. “Outpatient Revision Total Joint Arthroplasty: When Is It Safe, If Ever?” International Orthopedic Education Network Rochester Revision Course, Rochester, MN, June 15, 2024.

373. “Regenerative Medicine Will Not Prevent Knee and Hip Replacements” Vail Scientific Summit Debate, Vail, Colorado, August 19, 2024.

374. “Tourniquet-less Total Knee Arthroplasty: Technique for the Ambulatory Surgery Center”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, October 3, 2024.

375. “Strategies to Optimize the Efficiency and Economics of Direct Anterior Approach in the Ambulatory Surgery Center: It Works!”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, October 4, 2024.

376. “Outpatient Clinical Protocols: Current State in 2024”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, October 4, 2024.

377. “Building and Maintaining You're A-Team for Outpatient Total Joint Arthroplasty”, International Orthopedic Education Network Indianapolis, Indianapolis, IN, October 5, 2024.

378. “CAS 360”, American Association of Hip and Knee Surgeons, Dallas, TX, November 7, 2024.

### *Other Experiences*

Board Member Orthopedic Care Partners 2019 to present

Vail Health Total Joint Service Line Medical Director 2017 to present

Board Member Vail Valley Surgery Center 2018 to present

Co-Manager of Porter Center for Joint Replacement 2006-2017

Consultant for DJO Surgical (Enovis) 2015 to present

Product development for DJO Surgical (Enovis) 2015 to present

Consultant for Stryker Orthopaedics 2011-2015

Designer of Innomed Laminar Spreader Instrument, Product number 1996

Consultant for Convatec

Consultant for Ceramtec

Rocky Mountain Musculoskeletal Research Laboratory  
Co-Director 2006 to 2017

Medical Missions to Addis Ababa, Ethiopia, Mission to the World,  
October 20 – 28, 2018

Medical Missions to Addis Ababa, Ethiopia, Mission to the World,  
November 14 – 21, 2015

Medical Missions to Addis Ababa, Ethiopia, Mission to the World,  
November 16 – 22, 2014

Orthopaedic Medical Missions to Panama City, Panama, Operation  
Walk Denver, November 2 – 7, 2014

Orthopaedic Medical Missions to Tenwek Hospital, Bomet, Kenya,  
November 9 – 17, 2013

Medical Missions to Addis Ababa, Ethiopia, Mission to the World,  
October 20 – 26, 2013

Orthopaedic Medical Missions to Panama City, Panama, Operation  
Walk Denver, April 11 – 16, 2013

Medical Missions to Addis Ababa, Ethiopia, Mission to the World,  
November 11 – 17, 2012

Orthopaedic Medical Missions to Panama City, Panama, Operation Walk Denver, April 28 – May 4, 2011

Orthopaedic Medical Missions to Panama City, Panama, Operation Walk Denver, November 12 – 16, 2009

Orthopaedic Medical Missions to Pyongyang, North Korea, Wheat Mission Association in America, May 9 – 16, 2009

Orthopaedic Medical Missions to Panama City, Panama, Operation Walk Denver, November 13 – 20, 2008

Orthopaedic Medical Missions to Pyongyang, North Korea, Wheat Mission Association in America, April 24 – May 4, 2008

Orthopaedic Medical Missions to Pyongyang, North Korea, Wheat Mission Association in America, April 30 – May 5, 2007

International Congress for Joint Reconstruction North American Global Board member 2014 to present

International Congress for Joint Reconstruction Educational Committee member 2010 to present

International Orthopedic Education Network Board Member 2023 to present

Reviewer for the Journal of Arthroplasty, 2008 to 2013

Wheat Mission of Colorado, Executive Board Member, 2008 to 2015

Chief Resident, Orthopedic Trauma Service, Mayo Clinic, 2004

Instructor of Chemistry and Mathematics at Silver Spring Christian Academy, 1995 – 1996

Johns Hopkins Varsity Wrestling 1991 – 1995, Captain 1994 – 1995

The Steadman Clinic  
Steadman Philippon Research Institute  
Vail, Colorado

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