SAMER S. HASAN, M.D., Ph.D.

Current Appointments:

Co-Director Cincinnati Shoulder and Elbow Fellowship <u>https://www.cincinnatishoulderandelbow.com</u>

Clinical Director and Faculty Cincinnati Sportsmedicine Fellowship MercyHealth - Cincinnati Sportsmedicine and Orthopaedic Center 10663 Montgomery Road, Cincinnati, Ohio 45242 https://www.cincinnatisportsmed.com

Chief of Surgery Chief of Orthopaedics The Jewish Hospital/MercyHealth 4750 E. Galbraith Road, Cincinnati, Ohio 45236

Volunteer Clinical Instructor Department of Orthopaedic Surgery University of Cincinnati College of Medicine 3230 Eden Avenue, Cincinnati, Ohio 45267

Previous Appointments:

Volunteer Instructor Department of Biomedical Engineering University of Cincinnati College of Engineering and Applied Science 2901 Woodside Drive, Cincinnati, Ohio 45221 11/2000-7/2011

Post-Graduate Training:

8/2000 – 10/2000	Clinical Fellow in Shoulder Surgery Texas Orthopedic Hospital – Fondren Orthopedic Group Houston, TX 77030 Gary M. Gartsman, M.D., Director
1999 – 2000	Advanced Clinical Experience in Shoulder and Elbow Department of Orthopaedics University of Washington School of Medicine Seattle, WA 98195 Frederick A. Matsen, III, M.D., Chairman
1995 – 1999	Residency, Department of Orthopedic Surgery

	Chica	Presbyterian – St. Luke's Medical Center go, IL 60612 ar B. Andersson, M.D., Ph.D., Chairman
1994 – 1995	Rush- Chica	ship, Department of General Surgery Presbyterian – St. Luke's Medical Center go, IL 60612 rd A. Prinz, M.D., Chairman
Education:	TACHA	
1986 – 1994	M.D.	Vanderbilt University School of Medicine Nashville, TN 37232
1986 – 1994	Ph.D.	Vanderbilt University Nashville, TN 37240 Biomedical Engineering Dissertation title: "Quantifying the relationship between the body center of gravity and center of pressure during upright postural sway" Advisor: Richard G. Shiavi, Ph.D., Professor of Biomedical Engineering and Electrical Engineering, Assistant Professor of Orthopaedics and Rehabilitation
1982 – 1986	B.S.	Northwestern University Evanston, IL 60201 Biomedical Engineering, awarded with distinction
Licensure/Board Certific	ation:	
9/2013	(Passe	cate of Added Qualification in Sports Medicine ed Subspecialty Certificate in Orthopaedic Sports ine Exam January 2012)
9/2003	Diplon	Certified in Orthopaedic Surgery nate of the American Board of Orthopaedic Surgery rtified April 2011 – valid through December 31, 2023)
11/2000 – present	Kentu	cky and Ohio State Medical Licenses
Honors and Awards:		
2018	Elite F Ameri	Reviewer, Journal of Bone and Joint Surgery - can
2018	Achiev	vement Award, American Academy of Orthopaedic

Surgeons

2017-2018	Delegate, 2018 International Consensus Meeting on Orthopaedic Infections
2012 – present	Best Doctors of America
2011	Active Member, American Shoulder and Elbow Surgeons Society
2008	Second runner-up, "Reviewer of the Year", Arthroscopy – The Journal of Arthroscopy and Related Surgery
2006	Associate Member, American Shoulder and Elbow Surgeons Society
2000 (Fellowship)	Smith & Nephew Richards, Inc. Educational Grant for Fellowship Support at Texas Orthopaedic Hospital
1999 (Rush)	Finalist, Rush Surgical Society Resident Research Competition for "Results of arthroscopic treatment of symptomatic loss of extension following anterior cruciate ligament reconstruction"
1998	Jorge O. Galante Excellence in Research Award Tenth Annual Thesis Day for "Dynamic evaluation of knee instability in chronic anterior cruciate ligament-deficient patients using the point cluster method"
1998	11th Annual American Orthopaedic Association – Zimmer Travel Award for "Kinematic evaluation of knee instability during gait in anterior cruciate ligament-deficient patients using the point cluster method"
1997	Jorge O. Galante Excellence in Research Award Ninth Annual Thesis Day for "Non-traumatic osteonecrosis of the humeral head"
1992 (Vanderbilt)	Dissertation Enhancement Award
1991 – 1992	Hartford Foundation/American Federation for Aging Research Scholarship in Geriatric Clinical Pharmacology
1986 – 1994	National Institutes of Health/National Institutes of General Medical Sciences: Medical Scientist Training Program (M.S.T.P.) Scholarship
1986 (Northwestern)	Departmental Research Honors in Biomedical Engineering

1986	Ovid W. Eshbach Award (made annually to a senior who in the opinion of students, faculty, and the Dean most clearly typifies the ideal Tech[nological Institute] Student)
1985	Tau Beta Pi (National Engineering Honor Society) President – Illinois Gamma Chapter

Regional, National, and International Societies and Professional Organizations:

2015	American Orthopaedic Society for Sports Medicine (Active)
2014	Orthopaedic Executive Council MercyHealth Physicians (Member)
2013	Asociacion Argentina de Hombro y Codo - Argentine Association of Shoulder and Elbow (Corresponding International Member)
2011	American Shoulder and Elbow Surgeons (Active)
2008	Ohio Shoulder and Elbow Surgeons
2008	Arthroscopy Association of North America (Active)
2006	American Shoulder and Elbow Surgeons (Associate)
2006-2007	DePuy Global Shoulder Society
2004	Kentucky Orthopaedic Society
2000	Northern Kentucky Medical Society
2000	Kentucky Medical Association
2000	Academy of Medicine of Cincinnati
2000	Ohio State Medical Association
1996	American Academy of Orthopaedic Surgeons
1996	Orthopaedic Research Society
1990-1994	Institute of Electrical and Electronics Engineers
Leadership Positions:	

2019-present	Regional Medical Director, Orthopaedic Service Line, Bon Secours - MercyHealth
2018-present	Member, Education Committee, American Shoulder and Elbow Surgeons
2018-present	Member, Technology Taskforce, American Shoulder and Elbow Surgeons
2019-present	Chief of Orthopaedics, The Jewish Hospital/MercyHealth
2017-present	Member, Shoulder and Elbow Content Committee, American Academy of Orthopaedic Surgeons
2017	Member, ASES 2017 Annual Meeting Program Committee
2017-present	Section Head, Shoulder and Elbow, Journal of Bone and Joint Surgery Knowledge Plus CME Program
2016-2017	Member, American Academy of Orthopaedic Surgeons - Shoulder and Elbow Content Committee Pilot
2016-present	Chief of Surgery, The Jewish Hospital/MercyHealth
2014-present	Member, Orthopaedic Executive Committee, MercyHealth
2014-2016	Critical Evaluator, AAOS Annual Meeting.
2013-present	Expert Consultant – Best Doctors
2013-present	Editorial Board – Shoulder and Elbow: Orthopedics today
2013-2016	AAOS Shoulder and Elbow Program Committee (3/25/2013)
2012-2013	AAOS Liaison – Learning Portfolio / Maintenance of Certification
2011-present	Reviewer – The Journal of Bone and Joint Surgery
2010-present	Conference Co-Chair, Orthopedic Program, Society for Progress and Innovation in the Near East (S.P.I.N.E.), Boston, Massachusetts
2010-present	Instructor, Arthroscopy Association of North America
2009-2013	Member – Publications Committee – American Academy of Orthopaedic Surgeons (maximum of 2 two-year terms)

2009-2012	Member – Executive Committee – Greater Cincinnati Surgery Center, Cincinnati, Ohio
2008-2009	Peer Reviewer – American Academy of Orthopaedic Surgeons, Electronic Media
2008-present	Editorial Board - Arthroscopy: The Journal of Arthroscopic and Related Surgery
2007-present	Reviewer - Journal of Shoulder and Elbow Surgery
2004-present	Reviewer - Arthroscopy: The Journal of Arthroscopic and Related Surgery
2003-present	Instructor, Orthopaedic Learning Center, American Academy of Orthopaedic Surgeons

Research Projects:

11/2016-present	Investigator, Multi-Center InSpace Balloon Randomized Controlled Clinical Trial - Sponsor: OrthoSpace US Inc.
8/2016 – present	Investigator, Multi-Center SAFE – Shoulder Arthroplasty Failure Experience – Study
12/2009 – present	Continuous Passive Motion following Arthroscopic Rotator Cuff Repair: A Randomized Prospective Study Kinex Medical unrestricted grant
11/2009 – 2016	Investigator, Prospective Multicenter Open Label Study of the Encore Reverse [®] Shoulder Prosthesis, Protocol No. PS-901. Sponsor: DJO Surgical, Inc. 9800 Metric Blvd. Austin, TX 78758
1/2004 — 6/2006	Investigator, Reverse Shoulder Prosthesis FDA IDE #G020193. Sponsor: Encore Medical, L.P. 9800 Metric Blvd. Austin, TX 78758 "Evaluating the efficacy of the reverse shoulder prosthesis in patients with an irreparable rotator cuff and in need of shoulder replacement surgery"
7/2007 – 1/2010	Combined All-Arthroscopic Rotator Cuff and Superior Labrum Repair: Outcome and Description of Technique
12/2006 – present	Functional Outcome following All-Arthroscopic Posterior

	Labrum Repair
1/2004 – 12/2010	Prospective Clinical Study, Adhesive Capsulitis of the Shoulder
1/2001 – present	Cincinnati Sportsmedicine and Orthopaedic Center University of Cincinnati Shoulder Research Program Collaborators: David L. Butler, Ph.D., Michael Bey, Ph.D., and Thomas N. Lindenfeld, M.D. "Research in shoulder soft tissue biomechanics, <i>in-vivo</i> shoulder kinematics, and functional tissue engineering"
8/1999 – 7/2000	University of Washington School of Medicine Shoulder/ Elbow Program, Department of Orthopaedics Collaborators: Frederick A. Matsen, III, M.D., John A. Sidles, Ph.D., Douglas T. Harryman, II, M.D., and Kevin L. Smith, M.D. "Research into clinical outcomes, anatomy, and basic science related to disorders of the shoulder and elbow"
1996 – 1999	Rush-Presbyterian – St. Luke's Medical Center, Division of Sports Medicine and Section of Orthopedic Biomechanics Collaborators: Bernard R. Bach, M.D., Charles A. Bush- Joseph, M.D., Anthony A. Romeo, M.D., and Thomas P. Andriacchi, Ph.D. "Research into dynamic evaluation of ACL-deficient knee kinematics, treatment of arthrofibrosis following ACL reconstruction, and osteonecrosis of the proximal humerus"
1990 – 1994	Vanderbilt University, Department of Biomedical Engineering Collaborator: Richard G. Shiavi, Ph.D. "Research into developing and comparing measures of postural stability"
1986 – 1994	Vanderbilt University and Vanderbilt University Medical Center, Departments of Biomedical Engineering and General Internal Medicine (Divisions of Clinical Pharmacology and Geriatrics) Collaborators: Richard G. Shiavi, Ph.D., Deborah W. Robin, M.D., Michael J. Lichtenstein, M.Sc., M.D., and Alaistair J.J. Wood, M.D. "Research into the effects of drugs, aging, and their interaction on balance"
1987 – 1991	Vanderbilt University and Vanderbilt University Medical Center, Departments of Biomedical Engineering and Orthopaedic Surgery Collaborators: Richard G. Shiavi, Ph.D. and Thomas J.

	Limbird, M.D. "Research into the effects of ACL injury and ACL reconstruction on body forces during walking and pivoting"
1985 – 1986	Northwestern University, Department of Biomedical Engineering
	Collaborators: Jack L. Lewis, Ph.D. and W. Zev Rymer, M.D., Ph.D.
	"Research into the role of two-joint muscles on elbow joint forces"

Publications:

- 1. Hasan, S.S., Lichtenstein, M.J., Shiavi, R.G. "Effect of loss of balance on biomechanics platform measures of sway: influence of stance and a method for adjustment"; *Journal of Biomechanics*, 1990;23:783-789.
- 2. Hasan, S.S., Goldner, D.N., Lichtenstein, M.J., Wood, A.J.J., Shiavi, R.G. "Selecting a suitable biomechanics platform measure of sway"; *Proceedings of 12th Annual International Conference of IEEE-EMBS*, 1990;12(5):2105-2106.
- 3. Robin, D.W., Hasan, S.S., Lichtenstein, M.J., Shiavi, R.G., Wood, A.J.J. "Doserelated effect of Triazolam on postural sway"; *Clinical Pharmacology and Therapeutics*, 1991;49:581-588.
- 4. Hasan, S.S., Edmondston, M.A., Limbird, T.J., Shiavi, R.G., Peterson, S.W. "Reaction force patterns of injured and uninjured knees during walking and pivoting"; *Journal of Electromygraphy and Kinesiology*, 1991;1:218-228.
- 5. Hasan, S.S., Shiavi, R.G., Peterson, S.W., Bonds, A.B. "Postural control of a two degree of freedom biped using a simple neural network"; *Proceedings of 14th Annual International Conference of IEEE-EMBS*, 1992;14(5):37-38.
- 6. Hasan, S.S., Robin, D.W., Shiavi, R.G. "Measures of spontaneous sway and limits of stability: evaluation of drug effect"; *IEEE-Engineering in Medicine and Biology Magazine*, 1992;11(4):35-41.
- 7. Robin, D.W., Hasan, S.S., Lichtenstein, M.J., Shiavi, R.G., Wood, A.J.J. "Measures of postural sway", *Clinical Pharmacology And Therapeutics*, 1993;54:228-229.
- 8. Robin, D.W., Lee, M.H., Hasan, S.S., Wood, A.J.J. "Triazolam in cirrhosis: pharmacokinetics and pharmacodynamics", *Clinical Pharmacology and Therapeutics*, 1993;54:630-637.
- 9. Hasan, S.S., Robin, D.W., Szurkus, D.C., Ashmead, D.H., Peterson, S.W., Shiavi, R.G. "Simultaneous measurement of body center of pressure and center

of gravity during upright stance; Part I – Methods", *Gait and Posture,* 1996;4:1-10.

- 10. Hasan, S.S., Robin, D.W., Szurkus, D.C., Ashmead, D.H., Peterson, S.W., Shiavi, R.G. "Simultaneous measurement of body center of pressure and center of gravity during upright stance; Part II – Amplitude and Frequency Data", *Gait and Posture*, 1996;4:11-20.
- 11. Robin, D.W., Hasan, S.S., Edeki, T., Lichtenstein, M.J., Shiavi, R.G. Wood, A.J.J. "Increased baseline sway contributes to increased losses of balance in older people following Triazolam", *Journal of the American Geriatrics Society*, 1996;44:300-304.
- 12. Keller, T., Weisberger, A., Ray, J., Hasan, S.S., Shiavi, R.G., Spengler, D. "Relationship between vertical ground reaction force and speed during walking, slow jogging, and running", *Clinical Biomechanics*, 1996;11:253-259.
- 13. Hasan, S.S., Saleem, A., Bach, B.R., Jr., Bush-Joseph, C.A., Bojchuk, J. "Results of arthroscopic treatment of symptomatic loss of extension following anterior cruciate ligament reconstruction", *American Journal of Knee Surgery*, 2000;13:201-210.
- 14. Gartsman, G.M., Hasan, S.S. "What's new in shoulder surgery", *Journal of Bone and Joint Surgery Am.*, 2001;83A:145-151.
- 15. Hasan, S.S., Romeo, A.A. "Thoracic outlet syndrome secondary to an anomalous subclavius muscle: a case report", *Orthopedics*, 2001;24(8):793-794.
- 16. Gartsman, G.M., Hasan, S.S. "What's new in shoulder and elbow surgery", *Journal of Bone and Joint Surgery Am.,* 2002;84A:151-156.
- 17. Matsen, F.A., III, Hasan, S.S., Leith, J.M., Smith, K.L., "The Relationship of Surgical Volume to Quality of Care: Challenges and Opportunities", *Journal of Bone and Joint Surgery Am.*, electronic letter, February 5, 2002.
- 18. Hasan, S.S., Romeo, A.A. "Non-traumatic osteonecrosis of the humeral head", *Journal of Shoulder and Elbow Surgery*, 2002;11(3):281-298.
- 19. Hasan, S.S., Leith, J.M., Campbell, B., Kapil, R., Smith, K.L., Matsen, F.A., III. "Characteristics of unsatisfactory shoulder arthroplasties", *Journal of Shoulder and Elbow Surgery*, 2002;11(5):431-441.
- 20. Hasan, S.S., Gartsman, G.M. "Pearls and pitfalls of arthroscopic rotator cuff repair", *Operative Techniques in Orthopaedics*, 2002;12(3):176-185.
- 21. Gartsman, G.M., Hasan, S.S. "What's new in shoulder and elbow surgery", *Journal of Bone and Joint Surgery Am.*, 2003;85A:171-181.

- 22. Hasan, S.S., Leith, J.M., Smith, K.L., Matsen, F.A., III. "The distribution of shoulder replacements among surgeons and hospitals is significantly different than that of hip or knee replacements", *Journal of Shoulder and Elbow Surgery*, 2003;12(2):164-169.
- 23. Gartsman, G.M., Hasan, S.S. "What's new in shoulder and elbow surgery", *Journal of Bone and Joint Surgery Am.*, 2004;86A:189-202.
- 24. Gartsman, G.M., Hasan, S.S. "What's new in shoulder and elbow surgery", *Journal of Bone and Joint Surgery Am.*, 2005;87A:226-240.
- 25. Hasan, S.S. "Acromioplasty is unnecessary and potentially harmful", *Canadian Orthopaedic Association Bulletin*, 2005;71:15-17.
- 26. Gartsman, G.M., Hasan, S.S. "What's new in shoulder and elbow surgery", *Journal of Bone and Joint Surgery Am.*, 2006;88A:230-243.
- 27. Hasan, S.S., Fleckenstein, C., Albright, J. "Open treatment of posterior humeral avulsion of the glenohumeral ligaments: A case report and review of the literature", *Journal of Shoulder and Elbow Surgery*, 2007;16(4):e3-e5.
- 28. Frush, T., Fleckenstein, C., Hasan S.S. "Arthroscopic reduction and cannulated screw fixation of a large anterior glenoid rim fracture", *J Shoulder Elbow Surg*, 2010;19(3):e16-e19.
- 29. Hasan, S.S., Levy, M., Moller, S.A., Zambelli-Weiner, A., Noyes, F.R., "Postarthroscopic glenohumeral chondrolylsis revisited", *Am J Sports Med*, 2010;38(7):NP1-NP2.
- 30. Strickland J., Fleckenstein, C., Ducker A., Hasan, S.S. "Early results of concurrent arthroscopic repair of rotator cuff and SLAP tears", *Sports Health*, 2010;2:503-508.
- 31. Rill B., Fleckenstein, C., Levy M.S., Hasan, S.S. "Predictors of outcome following non-operative and operative treatment of adhesive capsulitis", Am J Sports Med, 2011;39(3):567-574.
- 32. Hasan, S.S., Fleckenstein, C.M., Levy, M. "Chondrolysis of the glenohumeral joint: Level of evidence and additional analyses", Arthroscopy, 2011;27(1):5-6.
- 33. Serrato, J.A. Jr., Fleckenstein, C.M., Hasan, S.S. "Glenohumeral chondrolysis associated with use of an intra-articular pain pump delivering local anesthetics following manipulation under anesthesia: A report of four cases", Journal of Bone and Joint Surg. Am., 2011;93(17):e991-8.
- 34. Hasan, S.S., Jacob, J.M. "Outcomes following Reverse Shoulder Arthroplasty using the RSP®: Preliminary Results of a Prospective Multi-Center Study", (White Paper), DjO Gobal, Inc., 2012.

- 35. Hasan, S.S., Fleckenstein, C.M., "Glenohumeral chondrolysis. Part I: "Clinical Presentation and Predictors of Disease Progression", Arthroscopy, 2013;29(7):1135-1141.
- 36. Hasan, S.S., Fleckenstein, C.M., "Glenohumeral chondrolysis. Part II: Results of treatment", Arthroscopy, 2013;29(7):1142-1148.
- 37. Hasan, S.S., Gordon, M., Ramsey, J., Levy, M.S., "Reverse shoulder arthroplasty using an implant with a lateral center of rotation: Outcomes, complications, and the impact of experience", Am J Orthop., 2014;43(9):E194-199.
- Hasan, S.S., Ricchetti, E.T., "When is a Positive Culture in Shoulder Surgery Not an Infection? Commentary on an article by William R. Mook et al.: " The Incidence of Propionibacterium acnes in Open Shoulder Surgery: A Controlled Diagnostic Study", J Bone Joint Surg. – Am., 2015;97(12):e51.
- Hasan, S.S., Revisiting the Socket. Commentary on an article by Jeremy S. Somerson et al.: "Clinical and Radiographic Outcomes of the Ream-and-Run Procedure for Primary Glenohumeral Arthritis", J Bone Joint Surg. – Am.; 2017 Aug 2;99(15):e85.
- 40. Ashman, B., Tewari A., Castle, J., Hasan, S.S., Bhatia S., "Intra-operative Neuromonitoring for Brachial Plexus Neurolysis During Delayed Fixation of a Clavicle Fracture Presenting as Thoracic Outlet Syndrome: A case report", J Bone Joint Surgery – Case Connector, 2018 Oct-Dec;8(4):e85.
- Schumaier, A., Abboud, J., Grawe, B., Horneff, J.G., Getz, G., Williams, G., Ramsey, M., Namdari, S., Romeo, A., Nicholson, G., Keener, J., Friedman, R., Yian, E., Muh, S., Delaney, R., Otto, R., Levine, W., Tokish, J.T., Kazanjian, J., Dines, J., Green, A., Paxton S., Flanagin, B., Hasan, S., Kaar, S., Miniaci, A., Cuomo, F., "Evaluating Glenohumeral Osteoarthritis: The Relative Impact of Patient Age, Activity Level, Symptoms, and Kellgren-Lawrence Grade on Decision-making", Arch Bone Joint Surg, 2019;7(2):151-160.
- Hasan, S.S., "Timing is Everything Commentary on an article by Brian Forsythe, MD, et al.: "The Timing of Injections Prior to Arthroscopic Rotator Cuff Repair Impacts Risk of Surgical Site Infection". J Bone Joint Surg – Am., 2019;101(8):e33.
- Hasan, S.S., Levy, J.C., Leitze, Z.R., Kumar, A.G., Krupp, R.J., Harter, D.G.,
 "Reverse Shoulder Prosthesis with a Lateralized Glenosphere: Early Results of a Prospective Multi-Center Study Stratified by Diagnosis", J Shoulder Elbow Arthroplasty, 2019;3:1-9.
- 44. Hasan, S.S., Rolf, R.H., Sympson, A., Eten, K., Elsass, T.R. "Single Shot versus Continuous Interscalene Block for Postoperative Pain Control following Primary Shoulder Arthroplasty: A prospective randomized clinical trial", JAAOS – Global

Res Rev., 2019, in press.

- 45. Palmer, M., Fleckenstein, C.M., Levy, M.S., Hasan, S.S., "The Distribution of Shoulder Replacements among Surgeons and Hospitals is Changing over Time", JAAOS Global Res. Rev, 2019, *submitted*.
- 46. Garrigues G.E., Zmistowski, B., Cooper A.M., Green, A., ICM Shoulder Group, "Proceedings from the 2018 International Consensus Meeting on Orthopedic Infections: evaluation of periprosthetic shoulder infection", J Shoulder Elbow Surg., 2019;28:S32-S66.
- 47. Garrigues G.E., Zmistowski, B., Cooper A.M., Green, A., ICM Shoulder Group, "Proceedings from the 2018 International Consensus Meeting on Orthopedic Infections: management of periprosthetic shoulder infection", J Shoulder Elbow Surg., 2019;28:S67-S99.
- 48. Hasan, S.S., Schwindel L.E., Fleckenstein, C.M., "Prosthetic Shoulder Arthroplasty in Patients 40 Years Old or Less: Early Outcomes Stratified by Diagnosis and Surgery", J Shoulder Elbow Arthroplasty, *submitted*.
- 49. American Shoulder and Elbow Society (ASES) Periprosthetic Joint Infection (PJI) Multicenter Workgroup. "Variability of culture specimen processing for suspected Shoulder periprosthetic joint infections during revision arthroplasty", J Shoulder Elbow Surg., 2019, *submitted*.

Book Chapters:

- 1. Bach, B.R., Jr. and Hasan, S.S. "Anatomy and physiology of the musculoskeletal system". In: *Athletic Training and Sports Medicine*, 3rd edition, Robert C. Schenk, Jr., Editor. American Academy of Orthopaedic Surgeons: Rosemont, Illinois, 2000, pp. 85-112.
- 2. Bach, B.R., Jr. and Hasan, S.S. "Sports-related injury and tissue response to physical injury". In: *Athletic Training and Sports Medicine,* 3rd edition, Robert C. Schenk, Jr., Editor. American Academy of Orthopaedic Surgeons: Rosemont, Illinois, 2000, pp. 113-138.
- 3. Hasan, S.S. and Gartsman, G.M. "Arthroscopy: complications of rotator cuff surgery". In: *Complications of Shoulder Surgery: Treatment and Prevention*. Richard J. Hawkins and Thomas J. Gill, Eds. Lippincott Williams & Wilkins, Philadelphia, 2006, pp.144-161.
- 4. Hasan, S.S. "Humeral anatomy and reconstruction". In: Orthopaedic Knowledge Update: Shoulder and Elbow, 3rd edition, Leesa Galatz, Editor. American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2008, pp. 361-374.
- 5. Saxton, D.L., Hasan, S.S. "What are the radiographic views necessary to evaluate osteoarthritis of the shoulder?" In: Curbside Consultation in Shoulder

Reconstruction: 49 Clinical Questions, Gregory Nicholson and Matt Provencher, Editors. SLACK Inc., Thorofare, New Jersey, 2008, pp. 21-26.

- 6. Sampson K.B., Hasan, S.S. "After an arthroscopic instability repair for recurrent anterior instability, when is the patient allowed to return to contact sports?" In: Curbside Consultation in Shoulder Reconstruction: 49 Clinical Questions, Gregory Nicholson and Matt Provencher, Editors. SLACK Inc., Thorofare, New Jersey, 2008, pp. 45-48.
- Maiers P., Hasan, S.S. "How do you diagnose and manage traumatic fractures of the lesser tuberosity of the humerus?" In: Curbside Consultation in Shoulder Reconstruction: 49 Clinical Questions, Gregory Nicholson and Matt Provencher, Editors. SLACK Inc., Thorofare, New Jersey, 2008, pp. 61-64.
- Austin, J.C., Hasan, S.S., Heckmann T.P., Lindenfeld, T.N. "Posterior instability of the shoulder". In: The Athlete's Shoulder, 2nd edition, Kevin E. Wilk, Michael M. Reinold, and James R. Andrews, Editors. Elsevier, Philadelphia, 2009, pp 209-228.
- Hasan, S.S. "Commentary Shoulder and Elbow Arthroplasty". In: Instructional Course Lectures Shoulder and Elbow 2nd edition, John W. Sperling, Editor. American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2010, pp 282-284.
- Bengston, H., Busam, M., Hasan, S.S. "Complications of Arthroscopic and Open Treatment". In: "Disorders of the Proximal Biceps Tendon: Evaluation and Treatment", S. S. Hasan and A. Mazzocca, editors. AAOS, Rosemont, Illinois, 2013, pp 165-174.
- 11. Hasan, S.S., Roy, R., Fleckenstein, C.M., "Post-Traumatic Arthropathy and Osteonecrosis of the Shoulder", In: "Shoulder and Elbow Trauma and its Complications. Volume 1: The Shoulder", R. Mike Griewe, editor. Woodhead Publishing, Cambridge, United Kingdom, 2015, pp. 423-454.
- Hasan S., Schwindel, L.E., Fleckenstein, C.M., "Prosthetic Shoulder Arthroplasty in Patients Aged 40 or Less: The Role for Resurfacing Hemiarthroplasty", In: "Shoulder Arthroplasty: Current Concepts 2017, <u>www.Paris-Shoulder-</u> <u>Course.com</u>, Paris, France, 2017, pp. 83-89.
- 13. Kawtharani, F., Hasan, S.S., "Anatomy of the Clavicle and its Articulations", In "Clavicle Injuries" G. Groh, editor. Springer, New York, 2017, pp. 1-17.
- Hasan, S.S., "Reverse Shoulder Arthroscopy for Cuff Tear Arthropathy", In: "Surgical Insights: Reverse Shoulder Arthroplasty [online course]", B.O. Parsons and S.S. Hasan, eds. American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2019.
- 15. Kohrs, B. and Hasan, S.S., "Indications", In: Reverse Shoulder Arthroplasty: A

Comprehensive Case-Based Approach, SLACK Inc., in preparation.

Book (Editorial)

- 1. Member, Editorial Board and Section Editor, Shoulder and Elbow Arthroplasty, "Instructional Course Lectures – Shoulder and Elbow 2", American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2010.
- 2. Guest Editor, "20th SECOT/AAOS Monograph on Sports Injuries in the Shoulder and Elbow", American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2013.
- 3. Hasan, S.S., Mazzocca, A., "Disorders of the Proximal Biceps Tendon: Evaluation and Treatment", Monograph Series. American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2014.
- 4. Parsons, B.O., Hasan, S.S., "Surgical Insights: Reverse Shoulder Arthroplasty [online course]", American Academy of Orthopaedic Surgeons, Rosemont, Illinois, 2019.

Editorials/Perspectives/Interviews:

- 1. Hasan, S.S. Perspective on "Lower degrees of dominant humeral torsion results in severe upper extremity injuries for pitchers" by Polster et al., Orthopedics Today, September 12, 2013.
- 2. Hasan, S.S. Perspective on "Accuracy of palpation-directed intra-articular glenohumeral injection confirmed by magnetic resonance arthrography" by Powell et al., Orthopedics Today, April 7, 2015.
- 3. Hasan, S.S. "At Issue: Prosthetic Shoulder Arthroplasty, Part 1: Evolution of surgical techniques shoulder minimize complications", Orthopedics Today, October, 2016.
- 4. Hasan, S.S. "At Issue: Prosthetic Shoulder Arthroplasty, Part 2: Emerging technological advances pave way for future patient care", Orthopedics Today, November, 2016.
- 5. Hasan, S.S. Cited in "Wide Armamentarium Still Needed to Treat Massive Cuff Tears", Orthopedics Today, March, 2018.
- 6. Hasan, S.S. Perspective on "Long term outcomes of glenohumeral arthrodesis" by Wagner et al., Orthopedics Today, August, 2018.
- 7. Hasan, S.S. Perspective on "Nonarthroplasty surgical treatment options for

massive, irreparable rotator cuff tears" by Carver et al., Orthopedics Today, submitted.

Research Abstracts and Presentations:

- 1. Hasan, S.S., Lewis, J.L. "The influence of two-joint muscles on joint force analyses", *Proceedings of ASME Applied Mechanics, Bioengineering, and Fluids Engineering Conference – Biomechanics Symposium,* 1987; pp. 399-402.
- Goldner, D.N., Hasan, S.S., Lichtenstein, M.J., Shiavi, R.G., Wood, A.J.J. "Dose related effect of Triazolam on postural sway", presented at the annual meeting of the American Federation of Clinical Research (Southern Section), January, 1990 (*Clinical Research, 38:6A*) and at the annual meeting of the AFCR, May, 1990 (*Clinical Research, 38:419A*).
- 3. Hasan, S.S., Edmondstone, M.A., Limbird, T., Shiavi, R.G. "Reaction force patterns of uninjured and injured knees during walking and pivoting", presented at the *31st Annual National Student Research Forum,* Galveston, TX, April, 1990.
- 4. Hasan, S.S., Lichtenstein, M.J., Shiavi, R.G. "Postural sway in elderly women: adjusting biomechanics platform measures for loss of balance", presented at the *First World Congress of Biomechanics*, San Diego, CA, August, 1990.
- 5. Hasan, S.S., Gish, A.M., Limbird, T.J., Shiavi, R.G., Peterson, S.W. "Ground reaction force comparison of a combined intra and extra articular procedure versus an extra-articular procedure alone for anterior cruciate ligament reconstruction", *Transactions of the 37th Annual Meeting of the Orthopaedic Research Society,* February, 1991.
- 6. Ray, J.L., Weisberger, A.M., Keller, T.S., Hasan, S.S., Shiavi, R.G., Spengler, D.M. "Velocity and ground reaction force relationships during walking and running", presented at the *15th Annual Meeting of the American Society of Biomechanics*, October, 1991.
- 7. Hasan, S.S., Robin, D.W., Shiavi, R.G., Wood, A.J.J. "New measures of postural sway using evaluating drug effect", presented at the *Annual Meeting of the American Geriatrics Society*, Washington, D.C., November, 1992 (*Journal of the American Geriatrics Society*, 40 (10 Suppl.):26.
- 8. Robin, D.W., Lee, M.H., Hasan, S.S., Wood, A.J.J. "Triazolam in cirrhosis: pharmacokinetics and pharmacodynamics", presented at the *Annual Meeting of the American Federation for Clinical Research,* April, 1993.
- 9. Robin, D.W., Hasan, S.S., Lichtenstein, M.J., Wood, J.J. "The effects of age on Triazolam-induced postural sway", presented at the *Annual Meeting of the American Geriatrics Society,* November, 1993.
- 10. Hasan, S.S., Kann, J.N., Holmes, G.B. "Pedobarographic comparison of

posterior tibial tendon ruptures treated conservatively versus triple arthrodesis", presented at the *31st Annual American Orthopaedic Association* – Residents' Conference, Sacramento, CA, February, 1998.

- Hasan, S.S., Hurwitz, D.E., Bach, B.R., Jr., Bush-Joseph, C.A., Andriacchi, T.P. "Kinematic evaluation of knee instability during gait in anterior cruciate ligamentdeficient patients using the point cluster method", presented at the *31st Annual American Orthopaedic Association* – Residents' Conference, Sacramento, CA, February, 1998.
- 12. Hasan, S.S., Hurwitz, D.E., Bach, B.R., Jr., Bush-Joseph, C.A., Andriacchi, T.P. "Dynamic evaluation of knee instability during gait in anterior cruciate ligamentdeficient patients", *Transactions of the 44th Annual Meeting of the Orthopaedic Research Society*, 1998; 23(2):805.
- 13. Hasan, S.S., Hurwitz, D.E., Bach, B.R., Jr., Bush-Joseph, C.A., Andriacchi, T.P. "Dynamic evaluation of knee instability in chronic anterior cruciate ligamentdeficient patients using the point cluster method", presented at the *111th Annual Meeting of the American Orthopaedic Association,* Asheville, NC, June, 1998.
- 14. Hasan, S.S., Saleem, A., Bach, B.R., Jr., Bush-Joseph, C.A., Bojchuk, J. "Arthrofibrosis following anterior cruciate ligament reconstruction: postdebridement results", presented at the 66th Annual Meeting of the American Academy of Orthopaedic Surgeons, Anaheim, CA, February, 1999.
- Hasan, S.S., Hurwitz, D.E., Bach, B.R., Jr., Bush-Joseph, C.A., Andriacchi, T.P. "Tibiofemoral kinematics during gait in uninjured and chronic anterior cruciate ligament-deficient subjects", poster presented at the 6th Annual Residents and *Fellows Arthroscopy Conference*, New Orleans, LA, February, 1999.
- Hasan, S.S., Leith, J.M., Smith, K.L., Matsen, F.A., III "Characteristics of one hundred and forty-one unsatisfactory shoulder arthroplasties", presented at the 68th Annual Meeting of the American Academy of Orthopaedic Surgeons" and 17th Open Meeting of the American Shoulder and Elbow Surgeons, San Francisco, CA, February 28 – March 4, 2001 (Proc. A.A.O.S., p. 647).
- Hasan, S.S., Leith, J.M., Smith, K.L., Matsen, F.A., III. "The distribution of shoulder replacements among surgeons is significantly different than that of hip or knee replacements" presented at the 68th Annual Meeting of the American Academy of Orthopaedic Surgeons and 17th Open Meeting of the American Shoulder and Elbow Surgeons, San Francisco, CA, February 28 – March 4, 2001 (Proc. A.A.O.S., p. 459).
- Leith, J.M., Hasan, S.S., Smith, K.L., Matsen, F.A., III. "Standardized selfassessment of elbow function", presented at the 68th Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, February 28 – March 4, 2001 (Proc. A.A.O.S., p. 603).

- 19. Schiffern, S.C., Rozencwaig, R., Hasan, S.S., Antoniou, J., Gillespy, T., III, Richardson, M.L., Matsen, F.A., III. "In vivo observations on glenohumeral kinematics: mid-range centering and obligate translation", presented at the 68th Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA,February 28 – March 4, 2001.
- 20. Bey, M.J., Tavazzani, F., Hasan, S.S., Levy, M.S., Lindenfeld, T.N. "A new clinical instrument for measuring internal and external shoulder rotation: reliability and early findings in a normal, male population", presented at the *50th Annual Meeting of the Orthopaedic Research Society,* San Francisco, CA, March 7-10, 2004.
- 21. Bey, M.J., Kolambkar, Y., Herfat, M., Hasan, S.S., Lindenfeld, T.N. "The effects of internal rotation and glenohumeral abduction on posterior capsule strains: a stereophotogrammetric study", presented at the *50th Annual Meeting of the Orthopaedic Research Society,* San Francisco, CA, March 7-10, 2004.
- 22. Hasan, S.S. "Outcome of the non-operative and operative treatment of adhesive capsulitis of the shoulder", presented at the *National Arab American Medical Association, International Meeting*, Beirut, Lebanon, June 29, 2004.
- 23. Hasan, S.S., Avagian, H., Fleckenstein, C. "Adhesive capsulitis of the shoulder: Outcome of operative and non-operative treatment", presented at the *Middle East Medical Congress*, Beirut, Lebanon, May 13, 2005.
- 24. Rill, B.K., Fleckenstein, C., Hasan, S.S. "The Frozen Shoulder: Non-operative and Operative Treatment", presented at the Ohio Orthopaedic Society, May 10, 2007.
- 25. Hasan, S.S., Rill, B.K. "The Results of Operative and Non-Operative Treatment of Frozen Shoulder", presented at *The 12th Pan Arab Orthopedic Congress*, Amman, Jordan, November, 2007.
- 26. Hasan, S.S., Strickland J. "Combined Arthroscopic Repair of Rotator Cuff and Superior Labrum Tears", presented at *The 12th Pan Arab Orthopedic Congress*, Amman, Jordan, November, 2007.
- 27. Hasan, S.S., "All-Arthroscopic Treatment of Posterior Glenohumeral Instability: Outcomes and Description of Technique", presented at *The 12th Pan Arab Orthopedic Congress*, Amman, Jordan, November, 2007.
- 28. Hasan, S.S., "Prosthetic Shoulder Replacement", presented at *The 12th Pan Arab Orthopedic Congress*, Amman, Jordan, November, 2007.
- Dyment, N., Shearn, J., Greiwe, M., Kenter, K., Boivin, G., Galloway, M., Hasan, S., Butler, D. "Inducing Tendon Degeneration Using Prostaglandin-E₂: *In Vitro* Release From Poly(lactic-co-glycolide) Films", *54th Annual Meeting of the Orthopaedic Research Society,* San Francisco, CA, March 1-5, 2008.

- Dyment, N., Shearn, J., Galloway, M.T., Greiwe, M.R., Kenter, K., Hasan, S.S., Butler, D.L., Boivin, G.P., "Comparative histological and biomechanical effects of prostaglandin-e2 and bacterial collagenase on the rabbit patellar tendon", *Proc ASME 2008 Summer Bioengineering conference*, Marco Island, FL, Jun, 2008.
- 31. Fester, E., Hasan, S.S. "Post-operative chondrolysis of the shoulder: A report of five cases and a review of the literature", presented at the *Annual Meeting of the Society of Military Orthopaedic Surgeons, Las Vegas, NV, Dec. 10th, 2008.*
- 32. Fester, E.W., Hasan, S.S. "Glenohumeral Joint Chondrolysis Linked to Intra-Articular Pain-Pumps: A Report of Six Cases", presented at the 2nd Ohio Shoulder and Elbow Society Annual Meeting, Columbus, OH, Jan. 24th, 2009.
- 33. Hasan, S.S., Fleckenstein, C., Ducker, A., Strickland, J. "Arthroscopic Combined Supraspinatus and SLAP Repairs: Clinical, Functional, and Magnetic Resonance Imaging Results", presented at the 2nd Ohio Shoulder and Elbow Society Annual Meeting, Columbus, OH, Jan. 24th, 2009.
- Dyment, N.A., Boivin, G.P., Galloway, M.T., Shearn, J.T., Griewe, R.M., Kenter, K., Hasan, S.S., Butler, D.L. "Collagenase vs. Prostaglandin-E2 for Inducing Degenerative Changes in the Rabbit Patellar Tendon, presented at the 55th Annual Meeting of the Orthopaedic Research Society, Las Vegas, NV, February 22-25, 2009.
- 35. Rill, B.K., Fleckenstein, C., Levy, M., Hasan, S.S. "Non-Operative and Operative Treatment of Adhesive Capsulitis: Results in Ninety-Nine Consecutive Cases", presented at the 28th Annual Meeting of the Arthroscopy Association of North America, San Diego, CA, April 30-May 3, 2009.
- 36. Hasan, S.S., Fleckenstein, C., Ducker, A., Strickland, J. "Arthroscopic Combined Supraspinatus and SLAP Repairs: Clinical, Functional, and Magnetic Resonance Imaging Results", presented at the *28th Annual Meeting of the Arthroscopy Association of North America*, San Diego, CA, April 30-May 3, 2009.
- 37. Hasan, S.S. "Arthroscopic Rotator Cuff Repair: Pearls, Pitfalls, and Complications", *National Arab American Medical Association, International Meeting*, Beirut, Lebanon, June 26-July 1, 2010.
- Hasan, S.S. "Glenohumeral Chondrolysis: Causative Factors and Treatment Options", 23rd Annual Congress of the International Society for Technology in Arthroplasty, Dubai, U.A.E., October 6-9, 2010. Published in Orthopaedic Proceedings, JBJS (Br) Suppl., 2012. <u>http://www.bjjprocs.boneandjoint.org.uk/</u> cgi/content/abstract/94-B/SUPP_XXV/91.
- 39. Hasan, S.S. and Fleckenstein, C.M. "Complications and Early Outcomes Following Reverse Shoulder Arthroplasty Using a Prosthesis with a Lateral Center of Rotation", 23rd Annual Congress of the International Society for

Technology in Arthroplasty, Dubai, U.A.E., October 6-9, 2010. Published in *Orthopaedic Proceedings*, *JBJS (Br)* Suppl., 2012. <u>http://</u> www.bjjprocs.boneandjoint.org.uk/cgi/content/abstract/94-B/SUPP_XXV/90.

- 40. Hasan, S.S. "A Report of Forty Cases of Glenohumeral Chondrolysis: Causative Factors and Treatment Results", *4th Annual Meeting of the Ohio Shoulder and Elbow Society*, Columbus, OH, January 22, 2011.
- 41. Hasan, S.S. and Fleckenstein C.M. "Short-Term Results and Complications Following Reverse Shoulder Arthroplasty Using a Prosthesis With a Lateral Center of Rotation", 4th Annual Meeting of the Ohio Shoulder and Elbow Society, Columbus, OH, January 22, 2011.
- 42. Hasan, S.S. and Fleckenstein, C.M. "Causative Factors and Outcome in 17 Patients with Glenohumeral Chondrolysis". *Presented at the 78th Annual Meeting of the American Academy of Orthopaedic Surgeons*, San Diego, CA, February 16-19, 2011.
- 43. Hasan, S.S. and Fleckenstein C.M. "Causative Factors and Outcome in 40 Patients with Glenohumeral Chondrolysis", 30th *Presented at the 30th Annual Meeting of the Arthroscopy Association of North America*, April 14, 2011.
- 44. Hasan, S.S. "Short Term Results and Complications following Reverse Shoulder Arthroplasty using a Prosthesis with a Lateral Center of Rotation", *National Arab American Medical Association, International Meeting*, Amman, Jordan, June 30, 2011.
- 45. Hasan, S.S. and Fleckenstein, C.M. "Outcome of Arthroscopy and Prosthetic Arthroplasty for Glenohumeral Chondrolysis", *Closed Meeting of the American Shoulder and Elbow Surgeons*, October 12-15, 2011.
- 46. Hasan, S.S., Serrato, J., Aboka, A. Ramsey J. "Use of Tendo-osseous Achilles Allograft for Shoulder Reconstruction: A Report of Two Cases", *5th Annual Meeting of the Ohio Shoulder and Elbow Society*, Columbus, Ohio, January 28, 2012.
- 47. Gilday, S.D., Dyment, N.A., Hasan, S.S., Shearn, J.T., Butler, D.L. "A Rabbit Model of Collagenase-Induced Patellar Tendon Degeneration: Effect of Single versus Repeated Collagenase Injections", *60thAnnual Meeting of the Orthopaedic Research Society*, New Orleans, Louisiana, March 15-18, 2014.
- 48. Hasan, S.S., Fleckenstein, C.M., Levy, M.S., "The Distribution of Shoulder Replacements Among Surgeons and Hospitals is Changing over Time", 8th Annual Meeting of the Ohio Shoulder and Elbow Society, Columbus, Ohio, February 21, 2015.
- 49. Hasan, S.S., Fleckenstein, C.M., Levy, M.S., "The Distribution of Shoulder Replacements Among Surgeons and Hospitals is Changing over Time", *82th*

Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, March 24-28, 2015.

- 50. Hasan, S.S., Levy, J.C., Leitze, Z.R., Kumar, A.G., Harter, D.G., Krupp, R.J., "Multi-center prospective study of a reverse shoulder prosthesis with a lateralized glenosphere", *Closed Meeting of the American Shoulder and Elbow Surgeons, 2015*, Asheville, North Carolina, October 8-11, 2015.
- 51. Hasan, S.S., Levy, J.C., Leitze, Z.R., Kumar, A.G., Krupp, R.J., Harter, D.G., "Multi-center prospective study of a reverse shoulder prosthesis with a lateralized glenosphere", *83rd Annual Meeting of the American Academy of Orthopaedic Surgeons,* Orlando, Florida, March 1-4, 2016.
- 52. Hasan, S.S., Levy, J.C., Leitze, Z.R., Kumar, A.G., Krupp, R.J., Harter, D.G., "Reverse shoulder prosthesis with a lateralized glenosphere: A multi-center prospective study", International Congress of Shoulder and Elbow Surgery, Jeju, South Korea, May 17-20, 2016.
- 53. Rolf, R.H., Hasan, S.S., Scheuerman, C., Eten, K., Elsass, T.R. "Single shot versus continuous interscalene block for postoperative pain control following primary shoulder arthroplasty: A prospective randomized clinical trial", Annual Meeting of the American Academy of Orthopaedic Surgeons, San Diego, California, March 13-17, 2017.
- 54. Hasan, S.S., Rolf, R.H., Scheuerman, C., Eten, K., Elsass, T.R. "Single shot versus continuous interscalene block for postoperative pain control following primary shoulder arthroplasty: A prospective randomized clinical trial", Annual Meeting of the American Shoulder and Elbow Surgeon, San Diego, California, March 18, 2017.
- 55. Hasan, S.S., Schwindel, L., Fleckenstein, C. "Outcomes of prosthetic shoulder arthroplasty in patients forty years old or less", 11th Biennial ISAKOS Congress, Shanghai, China, June 8, 2017.
- 56. Hasan, S.S., Schwindel, L.E., Fleckenstein, C.M. "Prosthetic shoulder arthroplasty in patients 40 years old of less", Podium presentation at Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, October March 7, 2018.
- 57. Hasan, S.S., Fleckenstein, C.M., "Prosthetic Shoulder Arthroplasty in Patients 40 Years Old or Less", International Congress of Shoulder and Elbow Surgery, Buenos Aires, Argentina, September 17-20, 2019, accepted.
- 58. Ajayi, A., Hajjar, M., Fleckenstein, C.M., Hasan, S.S., "Early outcomes and tendon integrity following arthroscopic repair of retracted large and massive rotator cuff tears with and without bio-inductive collagen patch augmentation", 2020 Open Meeting and 2019 Annual Meeting of the American Shoulder and Elbow Surgeons, *submitted*.

59. American Shoulder and Elbow Society (ASES) Periprosthetic Joint Infection (PJI) Multicenter Workgroup. "Specimen handling, processing, culturing, and reporting for suspected prosthetic shoulder infections: Substantial variability exists across surgeons and institutions", 2020 Open Meeting and 2019 Annual Meeting of the American Shoulder and Elbow Surgeons, *submitted*.

Other Presentations and Faculty Invitations:

- 1. Hasan, S.S. "Measuring postural stability: clinical research application of force platform methods", research seminar presentation to the *Division of Geriatrics and Gerontology,* Audie L. Murphy Veterans' Hospital, San Antonio, TX, February, 1991.
- 2. Faculty, Primary Care Orthopaedics Course. Presentation on "Fractures about the shoulder girdle", Seattle, Washington, February, 2000.
- 3. Moderator, University of Cincinnati, Department of Orthopaedic Surgery, Chief Resident Thesis Day, Cincinnati, Ohio, May 8, 2001.
- 4. Faculty, Advances on the Knee and Shoulder. Presentations on "Open treatment of rotator cuff tears", "Current techniques in shoulder replacement", and "The stiff shoulder: non-operative and operative treatment", Hilton Head Island, South Carolina, May 27–30, 2001.
- 5. Faculty, Clinical Evaluation and Treatment of the Upper Extremity. Presentations on "The spectrum of rotator cuff disease: diagnosis and treatment", and "Surgical elbow conditions", Cincinnati, Ohio, October 27-28, 2001.
- 6. Grand Rounds, "Current Challenges and Controversies in the Treatment of Glenohumeral Arthritis", University of Cincinnati, Department of Orthopaedic Surgery, Cincinnati, Ohio, October 31, 2001.
- 7. Moderator, University of Cincinnati, Department of Orthopaedic Surgery, Chief Resident Thesis Day, Cincinnati, Ohio, May 4, 2002.
- 8. Faculty, Advances on the Knee and Shoulder. Presentations on "My indications for subacromial decompression", "Open treatment of rotator cuff tears including mini open, "Current techniques in shoulder replacement", and "Medial collateral ligament and distal biceps tendon repairs", Hilton Head Island, South Carolina, May 26–29, 2002.
- 9. Instructor, Shoulder Surgery, Arthroscopy Association of North America, Fall Course, Palm Desert, California, November 16-20, 2002.
- 10. Faculty, Orthopaedic MRI and Sportsmedicine Scrimmage. Presentation on "Treatment of rotator cuff disease: Non-operative, open, and arthroscopic strategies", Cincinnati, Ohio, February 28, 2003.

- Faculty, Advances on the Knee and Shoulder. Presentations on "Mini open treatment of rotator cuff tears", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Open treatment of tennis elbow", Hilton Head Island, South Carolina, May 25 – 28, 2003.
- Faculty, The Shoulder II: Open and Arthroscopic Techniques, American Academy of Orthopaedic Surgery. Presentation on "Rotator cuff evaluation (physical examination and imaging): pearls and pitfalls", Rosemont, Illinois, September 12 14, 2003.
- 13. Grand Rounds, "The Multifactorial Etiology of Impingement", University of Louisville, Department of Orthopaedic Surgery, Louisville, Kentucky, January 20, 2004.
- 14. Faculty, Orthopaedic MRI and Sportsmedicine Scrimmage, Presentation on "Treatment of rotator cuff disease: Non-operative, open, and arthroscopic strategies", Cincinnati, Ohio, February 27, 2004.
- 15. Grand Rounds, "What's New in Shoulder Surgery", University of Cincinnati, Department of Orthopaedic Surgery, Cincinnati, Ohio, April 7, 2004.
- 16. Faculty, Advances on the Knee and Shoulder. Presentations on "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment of tennis elbow, golfers elbow, biceps, and triceps injuries". Moderator of "Arthroscopic treatment of rotator cuff tears", Hilton Head Island, South Carolina, May 30 June 2, 2004.
- 17. Moderator, University of Cincinnati, Department of Orthopaedic Surgery, Chief Resident Thesis Day, Cincinnati, Ohio, June 5, 2004.
- 18. Grand Rounds, "Treatment of Shoulder Arthritis" and "What's New in Shoulder Surgery", American University Hospital, Department of Orthopaedic Surgery, Beirut, Lebanon, July 1, 2004.
- 19. Grand Rounds, "What's New in Shoulder Surgery A Five-Year Synopsis", Hospital Italiano, Buenos Aires, Argentina, December 27, 2004.
- 20. Faculty, Orthopaedic MRI and Sportsmedicine Scrimmage. Presentation on "Treatment of rotator cuff disease: Non-operative, open, and arthroscopic strategies", Cincinnati, Ohio, May 6, 2005.
- 21. Faculty, Middle East Medical Congress. Presentations on "Current techniques in shoulder replacement", "Evaluation and treatment of adolescent knee pain", and co-director, "Shoulder arthroscopy workshop: transition to arthroscopic rotator cuff repair", Beirut, Lebanon, May 12-15, 2005.
- 22. Faculty, Advances on the Knee and Shoulder. Presentations on "Transition to

arthroscopic rotator cuff repair: pearls, pitfalls, and complications", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment of tennis elbow, golfers elbow, biceps, and triceps injuries", Hilton Head Island, South Carolina, May 29–June 1, 2005.

- 23. Faculty, Orthopaedic MRI and Sportsmedicine Scrimmage. Presentation on "Treatment of rotator cuff disease: Non-operative, open, and arthroscopic strategies", Cincinnati, Ohio, January 27, 2006.
- 24. Faculty, Advances on the Knee and Shoulder. Presentations on "Transition to arthroscopic rotator cuff repair: pearls, pitfalls, and complications", "Biceps complex lesions", "Arthroscopic treatment of posterior instability", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment of tennis elbow, golfers elbow, biceps, and triceps injuries", Hilton Head Island, South Carolina, May 28–30, 2006.
- 25. Faculty, AO North America Principles Course of Fracture Management for Operating Room Personnel, Covington, Kentucky, January 5-6, 2007.
- 26. Faculty, Practical Orthopaedic & Sports Medicine MRI. Presentation on "Diagnosis and treatment of shoulder macroinstability", Cincinnati, Ohio, January 27, 2007.
- 27. Faculty, AAOS/ASES Open and Arthroscopic Techniques in Shoulder Surgery. Cadaver lab instructor and presentation on "Partial rotator cuff tears: debridement or repair", Rosemont, Illinois, April 20-21, 2007.
- 28. Faculty, Advances on the Knee and Shoulder. Presentations on "Arthroscopic rotator cuff repair: pearls, pitfalls, and complications", "Arthroscopic treatment of posterior instability", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment of tennis elbow, golfers elbow, biceps, and triceps injuries", Hilton Head Island, South Carolina, May 27–29, 2007.
- 29. Grand Rounds, "Treatment of Glenohumeral Instability", American University of Beirut, Department of Orthopaedic Surgery, Beirut, Lebanon, January 17, 2008.
- 30. Faculty, Practical Orthopaedic & Sports Medicine MRI. Presentation on "Diagnosis and treatment of shoulder macroinstability", Cincinnati, Ohio, January 26, 2008.
- 31. Invited Speaker, 10th International Congress of Arthroscopy and Sportsmedicine. Presentations on "Common tendon injuries about the elbow: tennis and golfer's elbow and biceps injuries", "Technique of shoulder replacement", "Combined arthroscopic rotator cuff and SLAP repair", "Posterior shoulder instability", "Outcomes of non-operative and operative treatment of adhesive capsulitis", "Treatment of epicondylitis", Buenos Aires, Argentina, May 7-10, 2008.

- 32. Faculty and Moderator, Advances on the Knee and Shoulder. Presentations on "Partial thickness rotator cuff tears: debridement versus repair", "Arthroscopic treatment of posterior and multidirectional instability", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment tendon injuries about the elbow", Hilton Head Island, South Carolina, May 25–26, 2008.
- 33. Combined Grand Rounds, "Current concepts in the surgical treatment of glenohumeral arthritis", Department of Orthopaedic Surgery, Henry Ford Hospital, Detroit, Michigan, October 1, 2008.
- 34. Lecture on "Treatment of multidirectional and posterior instability of the glenohumeral joint", Sportsmedicine Conference, Department of Orthopaedic Surgery, University of Cincinnati, Cincinnati, Ohio, October 10, 2008.
- 35. Faculty, Practical Orthopaedic & Sports Medicine MRI. Presentation on "Diagnosis and treatment of shoulder macroinstability", Cincinnati, Ohio, January 24, 2009.
- 36. Instructor, "Reverse Shoulder Arthroplasty", Instructional Course Lecture (8SK), 2009 Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, February 26, 2009.
- 37. Faculty, "Reverse Shoulder Prosthesis Product Training Workshop", Orthopaedic Learning Center, Rosement, Illinois, May 8, 2009.
- 38. Faculty and Moderator, Advances on the Knee and Shoulder. Presentations on "Partial thickness rotator cuff tears: debridement versus repair", "Current techniques in shoulder replacement", "The stiff shoulder: non-operative and operative treatment", and "Treatment of tendon injuries about the elbow", Hilton Head Island, South Carolina, May 24-27, 2009.
- 39. Invited Speaker, Idaho Orthopaedic Society. Presentations on "Treatment of osteoarthritis and chondrolysis of the shoulder in young adults", "Arthroscopic rotator cuff repair: pearls and pitfalls", and "Treatment of multidirectional and posterior instability of the shoulder", Boise, Idaho, September 25-26, 2009.
- 40. Faculty, "Reverse Shoulder Prosthesis Product Training Workshop", Foundation for Orthopaedic Research and Eduction, Tampa, Florida November 7, 2009.
- 41. Faculty, Practical Orthopaedic & Sports Medicine MRI. Presentation on "Diagnosis and treatment of traumatic glenohumeral instability", Cincinnati, Ohio, January 23, 2010.
- 42. Instructor, "Reverse Shoulder Arthroplasty", Instructional Course Lecture (10SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, March 12, 2010.

- 43. Faculty and Moderator, Advances on the Knee and Shoulder. Presentations on "Treatment of partial thickness rotator cuff tears", "Treatment of shoulder arthritis in the young adult", "Conventional shoulder replacement: indications and techniques", "Arthroscopic treatment of posterior instability", "The stiff shoulder: non-operative and operative treatment", and "Treatment of lateral elbow injuries". Hilton Head Island, South Carolina, May 30-June 2, 2010.
- 44. Faculty and Head of Shoulder Section, Society for Progress and Innovation in the Near East (S.P.I.N.E.). Presentations on "Treatment of the large and irreparable rotator cuff tear: Repair with releases, augmentation, debridement, tendon transfers, and arthroplasty", "Non-operative vs. operative treatment of anterior glenohumeral instability, including management of glenoid and humeral bone loss". Lab leader: "Shoulder arthroscopy and arthroplasty cadaver workshop". Beirut, Lebanon, June 23-26, 2010.
- 45. Invited Faculty, Arthroscopy Association of North America, Course 810 Shoulder. Rosemont, Illinois, September 10-12, 2010.
- 46. Invited Faculty, Association of Traumatologists and Orthopedists of Armenia, Presentations on: "Shoulder Replacement Surgery in 2010: From Resurfacing to Reverse" and "Arthroscopic Rotator Cuff Repair: Transition, Technique, and Complications", Yerevan, Armenia, October 1-3, 2010.
- 47. Invited Speaker, DjO Surgical, Inc. Roundtable. Presentation on "Reverse Shoulder Prosthesis: Background, Indications, Technique, Outcome", Dubai, U.A.E., October 7, 2010.
- 48. Invited Faculty, AAOS/ASES Shoulder Arthroplasty: Surgical Indications and Techniques. Presentation on: "Overview of Shoulder Arthritis: Diagnostic and Treatment Options", Rosemont, Illinois, November 12-13, 2010.
- 49. Invited Faculty, Arthroscopy Association of North America, Course 902 Masters Experience in Shoulder Arthroscopy. Rosemont, Illinois, January 28-30, 2011.
- 50. Instructor, "Reverse Shoulder Arthroplasty", Instructional Course Lecture (1SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, San Diego, California, February 16, 2011.
- 51. Invited Speaker, DjO Surgical, Inc. Presentation on "Design Rationale for the Reverse Shoulder Arthroplasty", Product Workshop PW05, 30th Annual Meeting of the Arthroscopy Association of North America, San Francisco, California, April 15, 2011.
- 52. Faculty and Moderator, Advances on the Knee and Shoulder. Presenter and Moderator for "Treatment of cuff tear arthropathy: A case-based approach", Presenter "Indications and techniques for posterior shoulder instability", "The stiff shoulder: Non-operative and operative treatment" and "Open tendon releases about the elbow", and Panel Member "Controversies in rotator cuff tear

treatment: A case-based approach" and "Treatment of the young patient with shoulder arthritis: A case-based approach". Hilton Head Island, South Carolina, May 29-June 1, 2011.

- 53. Invited Speaker and Cadaver Lab Training Instructor, DjO Surgical, Inc. Presentation on "Early experience with the New Turon total shoulder system", Indianapolis, Indiana, June 11, 2011.
- 54. Conference Co-chair, Orthopaedic Program, Society for Progress and Innovation in the Near East (S.P.I.N.E.). Presentations on "Large rotator cuff tears: Salvage versus joint replacement", "Point-counter-point: Arthroscopic versus open: Arthroscopic repair", "Case discussion: recurrent shoulder instability", "Nonoperative vs. operative treatment of anterior glenohumeral instability". "Shoulder arthroplasty in 2011: From resurfacing to reverse", "First time anterior dislocation, Bankart lesion", "Three-part and four-part fractures: Rationale for treatment", Lab leader: "Shoulder arthroscopy and arthroplasty cadaver workshop". Beirut, Lebanon, June 22-25, 2011.
- 55. Invited Speaker and Cadaver Lab Training Instructor, DjO Surgical, Inc. Presentations on "Early experience with the New Turon total shoulder system", "Reverse shoulder arthroplasty – Surgical technique and component selection", and "Clinical Outcomes of the RSP", Indianapolis, Indiana, July 23, 2011.
- 56. Grand Rounds, "Diagnosis and Treatment of Traumatic Anterior Glenohumeral Instability", Hospital Italiano, Buenos Aires, Argentina, December 28, 2011.
- 57. Instructor, "Reverse Shoulder Arthroplasty", Instructional Course Lecture (1SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, California, February 7, 2012.
- 58. Instructor, "Let's Do a Total Shoulder Replacement", Instructional Course Lecture (11SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, California, February 10, 2012.
- 59. Moderator, "Session III Shoulder Miscellaneous", American Shoulder and Elbow Surgeons Specialty Day, San Francisco, California, February 11, 2012.
- 60. Invited Speaker and Cadaver Lab Training Instructor, DjO Surgical, Inc., Indianapolis, Indiana, March 17, 2012.
- 61. Invited Speaker, DjO Surgical, Inc. Presentations on "Design Rationale of the RSP Reverse Shoulder Prosthesis", "Basic Science and Advanced Techniques of Reverse Shoulder Arthroplasty", "RSP Outcomes and Challenging Cases" and "Turon Surgical Technique Presentation and Demo", Frankfurt, Germany, March 31, 2012.
- 62. Visiting Speaker, "What's New in Shoulder Arthroplasty 2012" and "What's New in Reverse Shoulder Arthroplasty 2012", Marshall University Joan C. Edwards

School of Medicine Department of Orthopaedic Surgery, May 11, 2012.

- 63. Faculty and Moderator, Advances on the Knee and Shoulder. Moderator for "Controversies in the Management of Biceps/SLAP Injuries", Presenter for "Controversies in Rotator Cuff Treatment", "Treatment of Shoulder Arthritis, including Cuff Tear Arthropathy", "Posterior and Multidirectional Instability", "The stiff shoulder: Non-operative and operative treatment" and "Open tendon releases about the elbow", and Panel Member "Controversies in rotator cuff tear treatment: A case-based approach". Hilton Head Island, South Carolina, May 28-May 31, 2012.
- 64. Conference Co-chair, Orthopaedic Program, Society for Progress and Innovation in the Near East (S.P.I.N.E.). Presentations on "Basic science of rotator cuff repair (and how to enhance healing)", "Point-counter-point: Arthroscopic versus open: Arthroscopic repair", "Non-operative and operative treatment of anterior glenohumeral instability", "Posterior and multidirectional shoulder instability", "Shoulder replacement surgery", "Three-part and four-part fractures: Rationale for treatment", "Non-operative and operative treatment of the stiff shoulder", Lab leader: "Shoulder arthroplasty cadaver workshop". Beirut, Lebanon, June 27-30, 2012.
- 65. Faculty and Cadaver Lab Training Instructor, DjO Surgical, Inc., Indianapolis, Indiana, November 3, 2012.
- 66. Faculty, 2nd Annual Fellows Course in Shoulder Arthroplasty, DjO Surgical, Inc. Presentations on "Humeral Head Resurfacing" and "Early Results from the RSP Multi-Center Study", Indianapolis, Indiana, March 8-9, 2013.
- 67. Instructor, "Rotator Cuff Surgical Skills", Instructional Course Lecture (7SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, Chicago, Illinois, March 21, 2013.
- 68. Instructor, "Let's Do a Total Shoulder Replacement", Instructional Course Lecture (11SK), Annual Meeting of the American Academy of Orthopaedic Surgeons, Chicago, Illinois, March 22, 2013.
- 69. Faculty, AAOS/ASES Advanced Surgical Reconstruction of the Knee and Shoulder, Faculty Surgical Demonstration – "Arthroscopic Repair of the Massive Cuff Tear", Orthopaedic Learning Center, Rosemont, Illinois, April 19-20, 2013.
- 70. Faculty and Moderator, Advances on the Knee and Shoulder. Presenter for "Operative Treatment of Shoulder Arthritis, including Cuff Tear Arthropathy", "The stiff shoulder: Non-operative and operative treatment" and "Open tendon releases about the elbow", and Panel Member "Controversies in rotator cuff tear treatment: A case-based approach", "Controversies in the Management of Biceps/SLAP Injuries", "Advances in the Treatment of Shoulder Instability", Moderator for "Treatment Options for the Athlete's Elbow". Hilton Head Island, South Carolina, May 26-May 29, 2013.

- 71. Conference Co-chair, Orthopaedic Program, Society for Progress and Innovation in the Near East (S.P.I.N.E.). Presentations on "Back to the Basics: Shoulder instability case presentations", "Mini-open rotator cuff repair (and the transition to all-arthroscopic)", "Arthroscopic repair of massive rotator cuff tears", "Nonoperative and operative treatment of anterior glenohumeral instability", "Shoulder arthroplasty: 2013 update", "Three-part and four-part fractures: Rationale for treatment", and Lab leader: "Shoulder arthroplasty cadaver workshop". Beirut, Lebanon, June 19-22, 2013.
- 72. Presenter, "Treatment of Rotator Cuff Injuries", Orthopedic Symposium: Sharing in the pursuit of excellence, Good Samaritan Hospital, Orthopedic Center of Excellence, Cincinnati, Ohio, September 21, 2013.
- 73. Invited Speaker, "Diagnosis and Treatment of Anterior Glenohumeral Instability" and "Grand Rounds: Glenohumeral Chondrolysis: Etiology, Diagnosis, Treatment, and Lessons Learned", Yale University Medical School and Yale-New Haven Hospital, New Haven, Connecticut, October 18, 2013.
- 74. Lecture on "Treatment of multidirectional and posterior instability of the glenohumeral joint", Sportsmedicine Conference, Department of Orthopaedic Surgery, University of Cincinnati, Cincinnati, Ohio, December 13, 2013.
- 75. Grand Rounds, "Shoulder Arthroplasty in 2014: From Resurfacing to Reverse", Hospital Italiano, Buenos Aires, Argentina, December 23, 2013.
- 76. Panel Member, "Proximal Humerus Fractures: Case Presentations and Discussion, The Ohio Shoulder and Elbow Society Annual Meeting, Columbus, Ohio, February 1, 2014.
- 77. Presentation, "Syringomyelia and (Really) Bad Shoulders: A Report of Two Cases", The Ohio Shoulder and Elbow Society Annual Meeting, Columbus, Ohio, February 1, 2014.
- 78. Co-Moderator, Podium Presentations: Shoulder and Elbow III Shoulder Arthroplasty, American Academy of Orthopaedic Surgeons, New Orleans, Louisiana, 10:30am-12:30pm, March 13, 2014.
- 79. Faculty, "Design Considerations in Anatomic Total Shoulder Arthroplasty", "History of the Reverse Shoulder", and "RSA Outcomes", 3rd Annual Fellows Course in Shoulder Arthroplasty, Drs. M Frankle and A Green, co-chairmen, Las Vegas, Nevada, April 24-26, 2014.
- 80. Invited Speaker, "Management of the Massive Rotator Cuff Tear", Bluegrass Orthopaedic Society, Lexington, KY, April 28, 2014.
- 81. Faculty and Moderator, Advances on the Knee and Shoulder. Presenter for "Operative Treatment of Shoulder Arthritis, including Cuff Tear Arthropathy", "The

Stiff Shoulder: Non-operative and Operative Treatment" and "Open Tendon Releases about the Elbow", "Posterior Shoulder Instability", Panel Member "Operative and Non-operative Treatment of Rotator Cuff Tears" and "Immediate Passive Motion or Delayed Motion After Rotator Cuff Repair", Moderator for "Scapular Dyskinesia, Rotator Cuff, and the Stiff Shoulder – What's New in 2014". Hilton Head Island, South Carolina, May 25-May 28, 2014.

- 82. Speaker, "Common Shoulder Injuries in Athletes", MercyHealth ATC Course, Mercy Fairfield HealthPlex, Fairfield, Ohio, July 11, 2014.
- 83. Conference Co-chair, Orthopaedic Program, Society for Progress and Innovation in the Near East (S.P.I.N.E.). Presentations on "Point-counterpoint: SLAP repair vs. biceps tenodesis", "Arthroscopic treatment of the massive rotator cuff tear", "Arthroscopic management of posterior glenohumeral instability", "Shoulder replacements in 2014", "Proximal humerus fractures: Alternative options to ORIF/ AO Sponsored Session", and Lab leader: "Shoulder arthroplasty cadaver workshop". Beirut, Lebanon, August 20-23, 2014.
- 84. Invited Speaker, Lebanese Orthopaedic Society Annual Meeting. Presentations on "Treatment of anterior shoulder instability with bone loss", "Posterior and multidirectional shoulder instability", "Update on treatment of proximal humerus fractures", "Current concepts in the treatment of proximal biceps tendon injuries", "Distal biceps tendon injuries", "Shoulder arthroplasty in 2014: From resurfacing to reverse", "Reverse shoulder arthroplasty". Beirut, Lebanon, September 26-27, 2014.
- 85. Speaker, "The Painful and Stiff Shoulder: Causes, Evaluation, Treatment", Mercy CME Event, Mercy West Hospital, Cincinnati, Ohio, December 6, 2014.
- 86. Speaker, "Shoulder Replacement Surgery: Indications, Surgical Options, Perioperative Care, National Association of Orthopaedic Nurses (NAON) – Cincinnati Chapter, Cincinnati, Ohio, December 10, 2014.
- 87. Panelist: "Best in Class Clinical Outcomes for the Reverse Shoulder Arthroplasty: Celebration of Ten Years", DjO Global, Inc. National Sales Meeting, Orlando, Florida, January 24, 2015.
- 88. Speaker, "Treatment of Proximal Biceps Tendon Injuries, including SLAP Tears, in the Athlete", Mercy SportsMedicine Symposium, Cincinnati, Ohio, February 28, 2015.
- 89. Co-Moderator, Podium Presentations: Shoulder and Elbow III Reverse Shoulder Arthroplasty, Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, Nevada, 1:30pm-3:30pm, March 25, 2015.
- 90. Faculty, 4th Annual Fellows Course in Shoulder Arthroplasty, Drs. M Frankle and A Green, co-chairmen. Talks on: "Design Considerations in Anatomic Total Shoulder Arthroplasty", "Hemi vs. ORIF vs. Reverse for Fracture", "Starting a

Shoulder Specialty Practice", "RSA Outcomes", and "Management of Glenoid Bone Loss", Indianapolis, Indiana, April 16-18, 2015.

- 91. Faculty and Moderator, Advances on the Knee and Shoulder. Talks on "Operative Treatment of Shoulder Arthritis", "The Stiff Shoulder: Non-operative and Operative Treatment" and "Open Tendon Releases about the Elbow"; Moderator and Panelist for "Controversies in the Shoulder" and Moderator for "SLAP Tears: Shouldn't We Just Tenodese Them All" Hilton Head Island, South Carolina, May 24-May 27, 2015.
- 92. Course Director, DjO Shoulder Course. Talks on "Current Trends in Shoulder Arthroplasty", "Anatomic TSA: Design Considerations and Technique", "Shoulder Infections: Diagnosis, Treatment, and Prevention", and Moderator, "Match Point Surgical Demo", Indianapolis, Indiana, May 29-30, 2015.
- 93. Faculty, 2nd Annual Geisinger Orthopaedic Institute Shoulder & Elbow Course, Talks on "Distal Biceps Repairs: One vs. Two Incisions", "Anterior Shoulder Instability: Indications for Open Surgery", "Management of Humeral Bone Loss in Reverse TSA", and "Glenoid Design in TSA" – Hershey, Pennsylvania, June 19-20, 2015.
- 94. Member, Organizing Committee, and Conference Co-chair, Orthopaedic Program, International Musculoskeletal Society (I.M.S.). Presentations on "Treatment of SLAP injuries", "Arthroscopic treatment of the massive rotator cuff tear", "Arthroscopic treatment of anterior shoulder instability", "Shoulder replacements in 2015", "Treatment of distal biceps tendon injuries", "My worst case", and Lab leader: "Shoulder arthroscopy/Open exposures cadaver workshops". Beirut, Lebanon, July 22-25, 2015.
- Faculty, Chicago Sports Medicine Symposium: Current Solutions in Sports Medicine & Arthroscopic Surgery, Talk on "Humeral Hill-Sachs Lesions: Neglect or Address?" and Panelist for "Case Presentations / Panel Discussion: Instability" – Chicago, Illinois, August 14-16, 2015.
- 96. Invited Speaker, Department of Orthopaedic Surgery, Lebanese Military Hospital, Lt. Col. V. Kourtian, Chairman. Talk on "Treatment of proximal biceps tendon and SLAP injuries". Beirut, Lebanon, September 24, 2015.
- 97. Invited Speaker, Lebanese Orthopaedic Society Annual Meeting. Talks on "Arthroscopic and open surgeries for traumatic anterior shoulder instability", "Shoulder stiffness: causes and treatment", and "Distal biceps tendon injuries". Beirut, Lebanon, September 25-26, 2015.
- 98. Moderator, Ohio Shoulder and Elbow Surgeons. "Shoulder arthritis in patients under the age of 50". Columbus, Ohio, January 29-30, 2016.
- 99. Faculty, Current Solutions in Shoulder and Elbow Surgery, Talk on "Humeral

Bone Loss with Instability – Neglect, Remplissage, Implant?", Faculty for Preconference Cadaver Lab (DJO Shoulder Replacement Stations), Faculty for Reverse Total Shoulder Replacement Breakout Sessions, Tampa, Florida, February 4-7, 2016.

- 100. Speaker, "Rotator Cuff Repair in the Overhead Athlete", Mercy SportsMedicine Symposium, Cincinnati, Ohio, February 27, 2016.
- 101. Faculty, 5th Annual Fellows Course in Shoulder Arthroplasty, Dr. A Green, Course Director. Talks on: "Design Considerations in Anatomic Total Shoulder Arthroplasty", "Starting a Shoulder Specialty Practice", and "Management of Glenoid Bone Loss", Indianapolis, Indiana, April 7-9, 2016.
- 102. Instructor, AANA Course: Advanced Shoulder and Elbow: Evidence, Outcomes, and Controversies Course. Rosemont, Illinois, April 29-30, 2016.
- 103. Speaker, Lunch workshop (sponsored by DJO), "RSP Design Rationale, Evolution, and 13 Years of Clinical Experience", ICSES, Jeju Island, South Korea, May 19, 2016.
- 104. Faculty and Moderator, Advances on the Knee and Shoulder. Talks on: "Complications of SLAP and Biceps Surgeries", "Rotator Cuff: Cased Based Symposium", "Shoulder Replacement Surgery", "The Stiff Shoulder", "Posterior and Multidirectional Instability", Hilton Head Island, South Carolina, May 28-31, 2016.
- 105. Invited Speaker and Moderator, "Decision making in Glenoid Deformities-Indications of Reverse Design with Lateral Center of Rotation", DVSE – German Shoulder and Elbow Society, Bremen, Germany, June 9-11, 2016.
- 106. Speaker, Lunch workshop (sponsored by DJO), "Common pitfalls in reverse shoulder arthroplasty and why RSP may be the solution", DVSE German Shoulder and Elbow Society, Bremen, Germany, June 10, 2016.
- 107. Member, Organizing Committee, and Conference Co-chair, Orthopaedic Program, International Musculoskeletal Society (I.M.S.). Presenter on "Treatment of Proximal Biceps Tendon and SLAP Injuries", "Arthroscopic Anterior Stabilization", "Shoulder Arthroplasty 2016 Update", "(Treatment of) Proximal Humerus Fractures", Moderator, and Lab leader: cadaver workshops. Beirut, Lebanon, July 28-30 2016.
- 108. Speaker, "Evidence-Based Talk for the Athletic Trainer: Anterior Shoulder Instability", Cincinnati, Ohio, October 5, 2016.
- 109. Invited Speaker,"Altivate Anatomic Shoulder", DjO National Sales Meeting, Orlando, Florida, January 19-21, 2017.
- 110. Presenter, "Prosthetic Shoulder Arthroplasty in Patients 40 Years Old or Less",

"Case Presentations – Young Patients with Shoulder Arthritis", Moderator, "Trends in Shoulder Arthroplasty", Ohio Shoulder and Elbow Surgeons, Columbus, Ohio, January 28, 2017.

- 110. Invited Speaker, "Resurfacing Arthroplasty in Patients under 40" and "US Experience of the Lateralized Glenoid Reverse", Paris International Shoulder Course Arthroplasty, Paris, France, February 9-11, 2017.
- 111. Speaker, "Managing the Massive Rotator Cuff Tear", Sportsmedicine Conference, University of Cincinnati, Department of Orthopaedic Surgery, March 10, 2017
- 112. Faculty, 6th Annual Fellows Course in Shoulder Arthroplasty, Dr. A Green, Course Director. Talks on: "Design Considerations in Anatomic Total Shoulder Arthroplasty", "Starting a Shoulder Specialty Practice", "Management of Humeral Bone Loss", and "Outcomes of Reverse Shoulder Arthroplasty", Indianapolis, Indiana, April 6-8, 2017.
- 112. Invited Speaker, 2017 Mayo Course on Shoulder Tendon Transfers and Complex Rotator Cuff Repair, Talks on: "Superior Capsule Reconstruction" and "Role of Augmentation using Achilles Tendon Allograft or Patch", Lab Instructor: "Superior Capsule Reconstruction Demo", Rochester, Minnesota, April 27-28, 2017.
- 113. Faculty and Moderator, 31st Advances on the Knee and Shoulder. Talks on: "Complications of SLAP and Biceps Surgeries", "Shoulder Replacement Surgery", "The Stiff Shoulder", "Posterior and Multidirectional Instability", Moderator "Treatment of the Overhead Athlete: Cased Based Symposium", Panelist: "The Rotator Cuff: Case Based Symposium", "Physical Examination of the Shoulder - Breakout Session", Hilton Head Island, South Carolina, May 27-30, 2017.
- 114. Faculty and Session Chair, 1st International Musculoskeletal Society (I.M.S.) Orthopedic and Spine Review Course. Sportsm Medicine Session Co-Chair and presenter on "Sports Basic Science: Ligament and Cartilage Injuries" and "Shoulder Anatomy and Biomechanics". Beirut, Lebanon, July 17 and 18, 2017.
- 115. Member, Organizing Committee, International Musculoskeletal Society (I.M.S.). Presenter on "SLAP Lesions and Biceps Tendinopathy: When to Repair and How", "Treatment of Humeral and Glenoid Bone Loss", "Anatomical Shoulder Arthroplasty", "Distal Biceps Tendon Ruptures: Treatment Update", "Shoulder Stiffness: Prevention and Treatment Algorithm", Moderator: "Updates on the Upper Extermity"; Lab leader: cadaver workshops. Beirut, Lebanon, July 19-21, 2017.
- 116. Faculty and Co-moderator, Session II: "Hot Topics in Total Shoulder Arthroplasty: Case Presentations", DJO Shoulder Summit, Chicago, Illinois, August 11-13, 2017.
- 117. Panel Member, American Society of Shoulder and Elbow Therapists, 25th Annual

Meeting, New Orleans, Louisiana, October 12, 2017.

- 118. Faculty, "Getting Involved: Society Memberships and Joining the Speaking Circuit", DJO Worksop: Navigating and Building your Career, New Orleans, Louisiana, October 13, 2017.
- 119. Moderator, Session VI: Shoulder and Elbow Miscellaneous, ASES 2017 Annual Meeting, New Orleans, Louisiana, October 14, 2017.
- 120. Invited Faculty, TSA Bioskills Demo and Lab, Speaker on "Computer Aided Preoperative Planning", "DJO Workshop – TSA", "Debate: Baseplate Design – Screw-in/Threaded Post", and "Posterior Shoulder Instability and Scope Rx", Current Solutions in Shoulder and Elbow Surgery, Tampa, Florida, February 1-3, 2018.
- 121. Co-Chairman, Size Matters: Innovations in Shoulder and Elbow Arthroplasty, Las Vegas, Nevada, February 16-17, 2018.
- 122. Faculty, 24th Annual Sports Medicine Symposium for the Health Care Profession, Speaker on "Diagnosis and Treatment of Shoulder Instability", Cincinnati, Ohio, February 22-24, 2018.
- 123. Faculty, 7th Annual Fellows Course in Shoulder Arthroplasty, Dr. A Green, Course Director. Indianapolis, Indiana, April 12-14, 2018.
- 124. International Faculty, 1st Shoulder Live Surgery Course in Jordan, Specialty Hospital. Amman, Jordan, April 20-21, 2018.
- 125. Faculty and Moderator, 32nd Advances on the Knee and Shoulder, Talks on: "Complications of SLAP and Biceps Surgeries", "Anatomic Shoulder Replacement Surgery", Moderator: "Treatment of the Overhead Athlete: Cased Based Symposium", "Treatment of Shoulder Instability: Case Based Symposium", Panelist: "Treatment of Massive Rotator Cuff Tears: Case Based Symposium", Faculty: "Physical Examination of the Shoulder - Breakout Session", "The Stiff Shoulder – Breakout Session", "Complex Case Presentations – Breakout Session", Hilton Head, South Carolina, May 26-29, 2018.
- 126. Faculty, North Sports Health and KORT Sports Medicine Symposium, "Pointcounterpoint: I Don't Want to Fail: Collision Athlete with First time Dislocation – Do a Scope with Remplissage", "Management of Posterior Instability", Louisville, Kentucky, June 8-9, 2018.
- 127. Faculty, 2018 San Diego Shoulder Course, San Diego, California, June 20-23, 2018.
- 128. Invited Speaker, "Arthroscopic Treatment Options for the Massive and Irreparable Rotator Cuff Tear" and "Glenoid and Humeral Bone Loss in Anterior Shoulder Instability", Orthopaedic Grand Rounds, American University of Beirut, Beirut,

Lebanon, July 5, 2018.

- 129. Delegate, Second International Consensus on Musculoskeletal Infection, Philadelphia, Pennsylvania, July 25-27, 2018.
- 130. Guest Speaker, "2018 Update on Arthroscopic Treatment of Anterior Shoulder Instability", "2018 Update on Superior Capsule Reconstruction", OhioHealth/ Grant Medical Center Residency (Arthrex Sponsored), Columbus Ohio, September 26, 2018.
- 131. Guest Speaker, "Shoulder Replacement Surgery: Past, Present, and Future", Association of Surgical Assistants Annual Meeting, Cincinnati, Ohio, September 29, 2018.
- 132. Panelist and Moderator Case Presentation, "Symposium I: Indications How Much Does Age Matter?" ASES 2018 Open Symposium, Shoulder Arthroplasty: Past, Present, and Future, Chicago, Illinois, October 11, 2018.
- 133. Presenter, "Matsen's Red and Yellow Protocol", "Symposium III: Update on Infection: Prophylaxis and Treatment", ASES 2018 Annual Meeting, Chicago, Illinois, October 12, 2018.
- 134. Speaker, "Treatment of Partial Thickness Rotator Cuff Tears", Shoulder Conference, University of Cincinnati, Department of Orthopaedic Surgery, November 9, 2018.
- 135. Invited Faculty, 8th Annual Fellows Course in Shoulder Arthroplasty, Dr. A Green, Course Director. Tampa, Florida, April 11-13, 2019.
- 136. Invited Speaker, "Role of Soft Tissue Augmentation to Reconstruct the Subscapularis", 2019 Mayo Course on Shoulder Tendon Transfers and Complex Rotator Cuff Repair, Rochester, Minnesota, April 25-27, 2019.
- 137. Lab Instructor, Arthrex Fellow Course, Naples, Florida, May 17, 2019.
- 138. Faculty and Moderator, 33rd Advances on the Knee and Shoulder, Talks on: "Complications of SLAP and Biceps Surgeries", "Arthroscopic Treatments for the Massive and Irreparable Rotator Cuff Tear", "Treatment of Shoulder Arthritis: From Arthroscopy to Arthroplasty", "Posterior and Multidirectional Instability: 2019 Update", "Distal Biceps Tendon Injuries: 2019 Update", Moderator/Panelist: "Treatment of the Overhead Athlete: Cased Based Symposium", "Treatment of Massive Rotator Cuff Tears: Case Based Symposium", Faculty: "The Stiff Shoulder – Breakout Session", Hilton Head, South Carolina, May 25-28, 2019.
- 139. Course Co-Director, 6th Annual Revision Course in Shoulder Arthroplasty, panelist "Preoperative Planning", moderator "Name that Stem", co-moderator "Future of Shoulder Arthroplasty", Tampa, Florida, June 7-8, 2019.

- 140. Lab Faculty, Shoulder Arthroplasty, DJO Lunch Workshop Presentation on "Using Altivate Reverse as a Platform Stem Advantages of an Inlay Component", San Diego Shoulder Course, San Diego, California, June 19-22, 2019.
- 141. Member, Organizing Committee, International Musculoskeletal Society (I.M.S.). Presenter on "Complications in Shoulder Arthroplasty", "Treatment of Shoulder PJI 2019", "Re-centering the Humeral Head: SCR or Balloon Spacer", "Evaluation of Bone Loss in Anterior Shoulder Instability: from Inverted Pear to Glenoid Track", "Treatment of Partial Thickness Rotator Cuff Tears: 2019 Update", "Case Presentation: Posterior Shoulder Instability", Beirut, Lebanon, July 1-3, 2019.
- 142. Faculty, "Know Your History: What Has and Has Not Worked in Shoulder Surgery", "Debate: Reverse or Anatomic TSA for 60-year-old Male with Ostoarthritis, Medialized Glenoid, and Intact Cuff; Anatomic All the Way!", DJO Shoulder Summit II, Chicago, Illinois, August 24-25, 2019.
- 143. Moderator, Free Papers Session 25 Shoulder Instability, International Congress of Shoulder and Elbow Surgery, Buenos Aires, Argentina, September 20, 2019.
- 144. Moderator, Shoulder Panel, DJO Workshop, ICSES 2019, Buenos Aires, Argentina, September 17-20, 2019
- 145. Invited Faculty, Northern California Shoulder and Elbow Course, Sacramento, California, October 5, 2019.
- 146. Faculty, ICL#101: Arthroscopy to Arthroplasty for the Very Young Patient with Glenohumeral Arthritis, ASES 2019 Annual Meeting, New York, New York, October 17, 2019.