

Awards and Honors

Cavazos Residency Fellowship Award –Best Resident Award, University of Connecticut School of Medicine, Farmington, CT 2014

Resident Research Paper Award-Connecticut Orthopaedic Society, Farmington, CT 2014

Arciero-Warner Best Research Paper Award-New England Shoulder and Elbow Society (NESES), Jay Peak, Vermont 2014

Ludwig J. Pyrttek M.D Research Paper Distinction Award, Hartford Hospital, Hartford, CT 2013

EOA Ranawat Award, Best Research Paper Award, Eastern Orthopaedic Association, Williamsburg, VA 2011

Diplomate of National Board (Orthopaedic Surgery), National Board of Examinations, Ministry of Health and Family Welfare, Government of India, Delhi 2004

Ratan Mani Sharma Award and Gold Medal- Best overall academic performance in the second professional M.B.B.S, University College of Medical Sciences, Delhi, 1997

Pallab Chaudhary Award- Microbiology, University College of Medical Sciences, Delhi, 1997

Dr. Krishan Kumar Gupta Award- Forensic Medicine, University College of Medical Sciences, Delhi, 1997

National and International Committees/Task Force Group

2016-18	2 nd International Consensus on Periprosthetic Joint Infection, Philadelphia, PA
2017-present	ASES Propionibacterium Acnes and Shoulder Arthroplasty Task Force
2016-present	Sharp Safety Blood and Body Fluids OR working Group, NYU Langone Health, NY

Scholarships

2013	AOA Resident Leadership forum, Denver, CO
2011	AOFAS Resident Scholarship, Keystone, C)
2010-2011	Carol and Ray Neag Orthopaedic Research Scholar, UCHC, Farmington, CT

Professional Society Membership

2009-Present	American Association of Orthopaedic Surgeons (AAOS)
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2015-Present	Eastern Orthopaedic Association (EOA)
2014-Present	The American Orthopaedic Association's Emerging Leader's Program
2016-Present	American Shoulder and Elbow Society (ASES)
2016-Present	Arthroscopy Association of North America (AANA)

Journal/Editorial Responsibilities

2015-present	Associate Editor , Shoulder and Elbow Section Techniques in Orthopaedics (TIO)
2015-present	Editorial Reviewer Board , American Journal of Orthopaedics

Reviewer

2015-present	Orthopaedic Journal
2015-present	American Journal of Orthopaedics
2015-present	Techniques in Orthopaedics (TIO)
2016-present	Journal of Shoulder and Elbow surgery
2016-present	Bulletin of Hospital for Joint Diseases
2014-present	Journal of Bone & Joint Surgery
2015-present	Clinical Orthopaedics and Related Research

Departmental Research Programs (Project Leader)

August 2016-Present	Same Day Shoulder arthroplasty program
June 2017-Present	Quality and Patient Safety, Shoulder and Elbow Surgery

Leadership Positions:

- Director of Quality and Patient Safety, Shoulder and Elbow Surgery, NYU Langone Orthopedic Hospital
- Editor, Shoulder and Elbow section, Techniques in Orthopaedics

Original Publications (Peer reviewed)

1. Yip M, Francis AM, Roberts T, Rokito A, Zuckerman JD, **Virk MS**. Treatment of Adhesive Capsulitis of the Shoulder: A Critical Analysis Review. JBJS Rev. 2018 Jun 19. PMID: 29916942.
2. Paoli AR, Gold HT, Mahure SA, Mai DH, Agten CA, Rokito AS, **Virk MS**. Treatment for Symptomatic SLAP Tears in Middle-Aged Patients Comparing Repair, Biceps Tenodesis, and Nonoperative Approaches: A Cost-Effectiveness Analysis. Arthroscopy. 2018 Apr 10. PubMed PMID: 29653794.
3. Liu JX, Bravo D, Buza J, Kirsch T, Kennedy O, Rokito A, Zuckerman JD, **Virk MS**. Topical vancomycin and its effect on survival and migration of osteoblasts, fibroblasts, and myoblasts: An in vitro study. J Orthop. 2018 Jan 30;15(1):53-58. PubMed PMID:29657439

4. Gyftopoulos S, Abballe V, **Virk MS**, Koo J, Gold HT, Subhas N. Comparison Between Image-Guided and Landmark-Based Glenohumeral Joint Injections for the Treatment of Adhesive Capsulitis: A Cost-Effectiveness Study. *AJR Am J Roentgenol*. 2018 Jun;210(6):1279-1287. PubMed PMID: 29629805.
5. Paoli AR, Pickell M, Mahure SA, McAllister D, Mai DH, Alaia MJ, **Virk MS**, Campbell KA. Trends and Risk Factors for 1-Year Revision of the Latarjet Procedure: The New York State Experience During the Past Decade. *Orthopedics*. 2018 May 1;41(3):e389-e394. PubMed PMID: 29570763.
6. Gyftopoulos S, Guja KE, Subhas N, **Virk MS**, Gold HT. Cost-effectiveness of magnetic resonance imaging versus ultrasound for the detection of symptomatic full-thickness supraspinatus tendon tears. *J Shoulder Elbow Surg*. 2017 Sep 8. PubMed PMID: 28893546.
7. **Mandeep S. Virk**, David Levy, Benjmin Kuhns, James S. Kercher, Billy K. Parsley, Stephen S. Burkhart, Anthony A. Romeo, Nikhil N. Verma, Brian J. Cole. Patient Preference Before and After Arthroscopic Rotator Cuff Repair: Which Is More Important, Pain Relief or Strength Return? *Am J Orthop (Belle Mead NJ)*. 2017 Jul/Aug;46(4):E244-E250. PMID: 28856356
8. Liu JX, Werner JA, Buza JA 3rd, Kirsch T, Zuckerman JD, **Virk MS**. Povidone-iodine Solutions Inhibit Cell Migration and Survival of Osteoblasts, Fibroblasts, and Myoblasts. *Spine (Phila Pa 1976)*. 2017 Apr 12. PMID: 28505031
9. **Virk MS**, Lederman E, Stevens C, Romeo AA. Coracoid bypass procedure: surgical technique for coracoclavicular reconstruction with coracoid insufficiency. *Journal Shoulder Elbow Surg*. 2016 Dec 15. pii: S1058-2746(16)30452-9
10. **Virk MS**, Bruce B, Hussey KE, Thomas JM, Luthringer TA, Shewman EF, Wang VM, Verma NN, Romeo AA, Cole BJ. Biomechanical Performance of Medial Row Suture Placement Relative to the Musculotendinous Junction in Transosseous Equivalent Suture Bridge Double-Row Rotator Cuff Repair. *Arthroscopy*. 2016 Aug 25. pii: S0749-8063(16)30394-2.
11. **Virk MS**, Manzo RL, Cote M, Ware JK, Mazzocca AD, Nissen CW, Shea KP, Arciero RA. Comparison of time to recurrence of instability after open and arthroscopic Bankart repair techniques *Orthop J Sports Med*. 2016 Jun 23;4(6):2325967116654114.
12. **Virk MS**, Apostolakis J, Cote MP, Baker B, Beitzel K, Mazzocca AD. Operative and Nonoperative Treatment of Acromioclavicular Dislocation: A Critical Analysis Review. *JBJS Rev*. 2015 Oct 27;3(10). pii: 01874474-201510000-00006
13. Alae F, Bartholomae C, Sugiyama O, **Virk MS**, Drissi H, Wu Q, Schmidt M, Lieberman JR. Biodistribution of LV-TSTA Transduced Rat Bone Marrow Cells Used for "Ex-vivo" Regional Gene Therapy for Bone Repair. *Curr Gene Ther*. 2015;15(5):481-491.
14. Alae F, **Virk MS**, Tang H, Sugiyama O, Adams DJ, Stolina M, Dwyer D, Ominsky MS, Ke HZ, Lieberman JR. Evaluation of the effects of systemic treatment with a sclerostin-neutralizing antibody on bone repair in a rat femoral defect model. *J Orthop Res*. 2014 Feb;32(2):197-203.

15. Alae F, Sugiyama O, **Virk MS**, Tang H, Drissi H, Lichtler AC, Lieberman JR. Suicide gene approach using a dual-expression lentiviral vector to enhance the safety of ex vivo gene therapy for bone repair. *Gene Ther.* 2014 Feb;21(2):139-47.
16. **Virk MS**, Alae FA, Tang H, Ominsky MA, Lieberman JR. Systemic administration of sclerostin antibody enhances new bone formation in a rat critical sized femoral defect. *J Bone Joint Surg Am.* 2013 Apr 17;95(8):694-701 (*Ludwig J. Pyrtex M.D Research Paper Distinction Award*).
17. **Virk MS**, Sugiyama O, Park SH, Gambhir SS, Adams DJ, Drissi H, Lieberman JR. "Same day" ex-vivo regional gene therapy: a novel strategy to enhance bone repair. *Mol Ther.* 2011 May;19(5):960-8 (*Cover page for Molecular Therapy; "EOA Ranawat Award"*).
18. Feeney J, Jayaraman V, Luk S, Shapiro D, **Virk M**, Twohig M, Jacobs L. Retrospective review of the costs of routine pelvic X-rays in a trauma setting. *Am Surg.* 2011 Mar;77(3):337-41.
19. Alae F, Sugiyama O, **Virk MS**, Tang Y, Wang B, Lieberman JR. In vitro evaluation of a double-stranded self-complementary adeno-associated virus type2 vector in bone marrow stromal cells for bone healing. *Genet Vaccines Ther.* 2011 Feb 27;9:4.
20. **Virk MS**, Alae F, Petrigliano FA, Sugiyama O, Stout D, Chatziioannaou A, Dougall WC, Lieberman JR. Combined inhibition of the BMP pathway and the RANK-RANKL axis in a mixed lytic/blastic prostate cancer lesion. *Bone* 2010 Mar 1;48(3):578-87.
21. Petrigliano FA, **Virk MS**, Liu N, Sugiyama O, Yu D, Lieberman JR. Targeting of prostate cancer cells by a cytotoxic lentiviral vector containing a prostate stem cell antigen (PSCA) promoter. *Prostate.* 2009 Sep 15;69(13):1422-34.
22. Sen R, Tripathy SK, **Virk MS**, Aggarwal S, Saini R, Agarwal A. Traumatic separation of capital femoral epiphysis in children: what has changed since Ratliff's era? Report of five cases and review of literature. *European Journal of Orthopaedic Surgery and Traumatology.* 20 (1),29-35,2009.
23. Cuomo AV, **Virk M**, Petrigliano F, Morgan EF, Lieberman JR. Mesenchymal stem cell concentration and bone repair: potential pitfalls from bench to bedside. *J Bone Joint Surg Am.* 2009 May;91(5):1073-83.
24. **Virk MS**, Petrigliano FA, Liu NQ, Kang CO, Stout D, Chatziioannaou A, Dougall WC, Lieberman JR. The influence of simultaneous targeting of BMP pathway and RANK-RANKL axis in a pure osteolytic prostate cancer metastasis. *Bone.* 2009 Jan;44(1):160-7.
25. Miyazaki M, Sugiyama O, Zou J, Yoon SH, Morishita Y, Sintuu, **Virk MS**, Lieberman JR, Wang JC. Comparison of lentiviral and adenoviral gene therapy for spinal fusion in rats. *Spine.* 2008 Jun 1;33(13):1410-7.
26. **Virk MS**, Conduah A, Liu NQ, Sugiyama O, Park SH, Cuomo A, Kang C, Lieberman JR. Influence of short-term adenoviral vector and prolonged lentiviral vector mediated bone morphogenetic protein-2 expression on the quality of bone repair in a rat femoral defect model. *Bone.* 2008 May;42(5):921-31.

27. Hsu WK, **Virk MS**, Jo M, Krenek L, Feeley BT, Stout DB, Chatziioannou AR, Lieberman JR. The characterization of Osteolytic, Osteoblastic and Mixed Lesion in a Prostate Cancer mouse model with the use of 18 F-FDG and 18F-Flouride PET-CT scans. *J Nucl Med*. 2008 Mar;49(3):414-21.
28. Nonia Pariente, Kouki Morizono, **Mandeep S. Virk**, Frank Petrigliano, Robert E. Reiter, Jay R. Lieberman and Irvin S. Y. Chen. A novel dual targeted lentiviral vector leads to specific transduction of prostate cancer bone metastasis in vivo after systemic administration. *Mol Ther*. 2007 Nov;15(11): 1973-81.
29. Hsu WK, Sugiyama O, Park SH, Conduah A, Feeley BT, Liu NQ, Krenek L, **Virk MS**, An DS, Chen IS, Lieberman JR. Lentiviral-mediated BMP-2 gene transfer enhances healing of segmental femoral defects in rats. *Bone*, 2007 Apr; 40(4):931-8.
30. Mandeep S Dhillon, Prabudheva Prasad, **Mandeep S. Virk**, Sameer Aggarwal. Multicentric giant cell tumor involving the same foot - a case report and review of literature. *IJO*. April 2007, 41(2); 154-7.
31. Jain D, Kumar V, Vasishta RK, **Virk MS**, Dhillon MS. Gorham's disease- A case report. *IJO*. Jan 2006, 40(1); 55-6.

Review Articles

32. **Virk MS**, Nicholson GP, Romeo AA. Irreparable Rotator Cuff Tears Without Arthritis Treated With Reverse Total Shoulder Arthroplasty. *The Open Orthopaedic Journal*. 2016, 10:296-308
33. **Virk MS**, Nicholson GP. Complications of Proximal Biceps Tenotomy and Tenodesis. *Clin Sports Med*. 2016 Jan;35(1):181-8.
34. **Virk MS**, Cole BJ. Proximal Biceps Tendon and Rotator Cuff Tears. *Clin Sports Med*. 2016 Jan; 35(1):153-61.
35. Sayegh ET, Sandy JD, **Virk MS**, Romeo AA, Wysocki RW, Galante JO, Trella KJ, Plaas A, Wang VM. Recent Scientific Advances Towards the Development of Tendon Healing Strategies. *Curr Tissue Eng*. 2015;4(2):128-143.
36. **Virk MS**, Singh H, Mazzocca AD. Biologic augmentation of rotator cuff repair: Plasma rich plasma and bone marrow aspirate. *Techniques in Shoulder and Elbow*, December 2015; Volume 16; Issue 4; p107–114
37. **Virk MS**, Tilton AK, Cole BJ. Biceps Tenodesis and Superior Labrum Anterior to Posterior (SLAP) Tears. *Am J Orthop (Belle Mead NJ)*. 2015 Nov;44(11):491-494
38. Mellano C, **Virk MS**, Romeo AA. Arthroscopic subacromial decompression and acromioplasty. *Techniques in Shoulder and Elbow* June 2015; Volume 16, Issue 2, p 59–62
39. **Virk MS**, Mazzocca AD. Distal Biceps Injuries. *Operative Techniques in Sports Medicine*, June 2014; <http://dx.doi.org/10.1053/j.otsm.2014.03.002>

40. **Virk MS**, Mazzocca AD. Acromioclavicular joint separation. Operative Techniques in Sports Medicine, June 2014 <http://dx.doi.org/10.1053/j.otsm.2014.03.003>
41. **Virk MS**, Romeo AA. The Hill Sachs lesion is best treated with a surface replacement. Opposes. Seminars in Arthroplasty. Vol 25, Issue 4, Dec 2014, pages 231-235
42. **Virk MS**, Romeo AA. Managing the Long Head of the Biceps Tendon in TSA: A Thorn in My Side. Seminars in Arthroplasty. Vol 25, Issue 4, Dec 2014, pages 236-239
43. Geaney LE, **Virk MS**, Mazzocca AD. Open treatment of biceps tendon injuries: Key hole technique, subpectoral tenodesis technique and suture anchor technique. AAOS monograph series, 2014
44. **Virk MS**, Arciero RA. Superior labrum anterior to posterior tears and glenohumeral instability. Instr Course Lect. 2013;62:501-14.
45. **Virk MS**, Lieberman JR. Biologic adjuvants for fracture healing. Arthritis Res Ther. 2012 Nov 30;14(5):225.
46. **Virk MS**, Lieberman JR. Tumor metastasis to bone. Arthritis Res Ther. 2007;9 Suppl 1:S5.

Book Chapters

1. **Virk MS**, Arciero RA. Revision Posterior Shoulder Stabilization: Indication, Evaluation and Outcomes (Chapter 2F, pages 150-160). Shoulder and Elbow Injuries in Athletes. Prevention, Treatment and Return to Sports. Elsevier Inc. PA, 2018.
2. **Virk MS**, Mazzocca AD. Acromioclavicular Joint Dislocation. Postoperative Orthopaedic Rehabilitation (Chapter 3, pages 17-26). American Academy of Orthopaedic Surgeons (AAOS), Rosemont, IL, 2016.
3. **Virk MS**, Mellano C, Romeo A. Open Subpectoral Biceps Tenodesis (Chapter 19, pages 213-226). Advanced Reconstruction: Shoulder 2. American Academy of Orthopaedic Surgeons (AAOS), Rosemont, IL, 2016.
4. **Virk MS**, Verma N. Pectoralis Major tendon tears: Repair and Augmentation Techniques (Chapter 26, pages 309-320). Advanced Reconstruction: Shoulder 2. American Academy of Orthopaedic Surgeons (AAOS), Rosemont, IL, 2016.
5. Mellano C, **Virk MS**, Romeo A. Scapulothoracic Fusion to Manage Fascioscapulohumeral Muscular Dystrophy (Chapter 60, pages 707-716). Advanced Reconstruction: Shoulder 2. American Academy of Orthopaedic Surgeons (AAOS), Rosemont, IL, 2016.
6. **Virk MS**, Arciero RA, Mazzocca AD. Repair and Reconstruction of Acromioclavicular Injuries. Operative Techniques in Shoulder and Elbow Surgery, 2nd Edition. Wolters Kluwer 2015.
7. **Virk MS**, Rodner C. Hand and Wrist: History and Physical examination (Chapter 3, pages 33-57). The American Society for Surgery of the Hand, Textbook of Hand and Upper Extremity Surgery. ASSH, Chicago, IL 2013.

8. Nicholas Bontempo, **Mandeep S. Virk**, Sarah Axler, Augustus Mazzocca. Shoulder Injuries (Chapter 9, pages 81-106). *Musculoskeletal Emergencies*, Elsevier Inc, PA, 2013.
9. **Mandeep S. Virk**, Nicholas Bontempo, Megan Cummings, Augustus Mazzocca. Elbow and Distal Humerus (Chapter 10, pages 107-122). *Musculoskeletal Emergencies*, Elsevier Inc, PA, 2013.
10. **Virk MS**, Prabhakar S, Dhillon MS. Radiography in ER (Chapter 6, pages 38-45). *First Aid and Emergency Management in Orthopaedic Injuries*, Jaypee Brothers Medical Publishers, 2012.

E-Books

11. **Virk MS**, Mazzocca AD. Acromioclavicular Joint Injuries: Acute and Chronic Management. Clinical Decision Support (CDS) Digital Support Program on Shoulder and Elbow
12. **Virk MS**, Romeo AR. Management of Failed Rotator Cuff Surgery. Clinical Decision Support (CDS) Digital Support Program on Shoulder and Elbow
13. **Subject matter expert (SME)** for Elsevier “Orthopaedic video project-2013”.

Invited Presentations and Lectures

1. **The Athlete with Shoulder Instability**. Orthopedic 101: Management of Acute Sports Injuries course, New York, NY, April 7, 2017.
2. **Shoulder and Elbow examination**. Orthopedic 101: Management of Acute Sports Injuries course, New York, NY, April 7, 2017.
3. **Elbow Arthroplasty Options in a Young Athlete**. Instructional Course Lecture AAOS 2016 Annual meeting, Orlando, FL March 1-5th, 2016.
4. **Humeral Options for Total Shoulder Arthroplasty**: Stemless, Short Stem, or Standard State of the Art Shoulder Arthroplasty Symposium at Hospital for Joint Diseases-NYU Langone Medical Center, New York. November 13, 2015.
5. **Guidance Technology for Shoulder Arthroplasty. Is it worth it?** State of the Art Shoulder Arthroplasty Symposium at Hospital for Joint Diseases-NYU Langone Medical Center, New York. November 13, 2015.
6. **Tips and Tricks: Arthroscopic Rotator Cuff Repair**. Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India. August 25, 2015.
7. **Glenohumeral joint and Instability**. Government Medical College, Chandigarh, India. August 24, 2015.

Scientific/Podium Presentations

1. Multilevel Glenoid Morphology and Retroversion Assessment in Walch B2 and B3 Types. ID: 18001884. 104th RSNA November 25-30, 2018. McCormick Place, Chicago, IL.
2. Yip M, Paoli AR, Gold HT, Abramowitz M, Gyftopoulos S, **Virk MS**. Cost Utility of Imaging Strategies for Preventing Missed Posterior Shoulder Dislocation. ASES Fellows meeting, San Diego Shoulder Institute, June 30th 2017, San Diego, CA.
3. James X. Liu, John Buza, Thorsten Kirsch, Oran Kennedy, Andrew Rokito, Joseph D. Zuckerman, **Mandeep Virk**. The Cytotoxicity Profile of Vancomycin Hydrochloride on Proliferating Osteoblasts, Fibroblasts, and Myoblasts. Presented at the Open Meeting of the American Shoulder and Elbow Surgeons on Specialty Day, March 18, 2017, San Diego, CA. (**Finalist for the 2017 Neer Award and ASES Resident Research Award**)
4. Liu JX, Buza JA, Kirsch T, Kennedy O, Zuckerman JD, **Virk M**. (2017). The Cytotoxic Effect of Povidone-iodine on osteoblasts. Presented at: American Academy of Orthopaedic Surgeons (AAOS) March 14 -18, 2017, San Diego, CA.
5. Justin Griffin, Noam Kupfer, Gregory Nicholson, Patrick O'Donnell, Robert Thorsness **Mandeep S. Virk**. Glenoid Bone Grafting in Reverse Total Shoulder: Graft Size and Position Classification. Presented at the 2017 AAOS Annual Meeting (Paper 539), March 14 -18, 2017, San Diego, CA.
6. Mahure SA, Paoli AR, Zuckerman JD, Kwon YW, Rokito AS, **Virk MS**. The Effect of Institutionalization on Patients Undergoing Total Shoulder Arthroplasty: The Impact of Admission Source. Poster presented: Clinical Orthopaedic Society 104th Annual Meeting, September 29-Oct1st, 2016, New Orleans, LA.
7. Mahure SA, Paoli AR, Kwon YW, Rokito AS, **Virk MS**. Comparison of General versus Isolated Regional Anesthesia in Total Shoulder Arthroplasty: A Retrospective Propensity-Matched Cohort Analysis. Podium presentation: Clinical Orthopaedic Society 104th Annual Meeting, September 29-Oct1st, 2016, New Orleans, LA.
8. **Mandeep S Virk**, Jae K Kim, Saleh Aiyash, Brian J Cole, Nikhil N Verma and Anthony A Romeo. Outcomes of Shoulder Hemiarthroplasty and Concentric Glenoid Reaming (Ream and Run Procedure) in Young Patients (Poster # FP-S06-0133). Presented at the 5th ICSES Meeting, May 18-20, 2016, Jeju, Korea.
9. **Mandeep S. Virk**, David M. Levy, James S. Kercher, Benjamin Kuhns, Billy K. Parsley, Stephen S. Burkhart, Anthony A. Romeo, Nikhil N. Verma, Brian J. Cole. Do Patients Undergoing Arthroscopic Rotator Cuff Repair Prioritize Pain Relief or Return of Strength? Presented at the 2016 AAOS Annual Meeting (Paper 351), March 1-5, 2016, Orlando, FL.
10. **Virk MS**, Alae FA, Tang H, Ominsky MA, Lieberman JR. Systemic Administration of Sclerostin Antibody Enhances New Bone Formation in a Rat Critical Sized Femoral Defect. Presented at the Connecticut Orthopaedic Society Annual Meeting, May 9, 2014, Farmington, CT.
11. **Virk MS**, Manzo RL, Cote M, Ware JK, Mazzocca AD, Nissen CW, Shea KP, Arciero RA. Comparison of Open versus Arthroscopic Bankart Repair Techniques (Arthroscopic

Suture Capsulorrhaphy And Arthroscopic Thermal Capsulorrhaphy) for the Treatment of Recurrent Traumatic Anterior Shoulder Instability. Presented at the New England Shoulder and Elbow Society (NESES) Meeting, Feb 7-8, 2014, Jay Peak, VT. (**Arciero-Warner Best Research Paper Award**)

12. **Virk MS**, Sugiyama O, Park SH, Gambhir SS, Adams DA, Drissi H, Lieberman JR. “Same Day” *Ex- Vivo* Regional Gene Therapy: A Novel Strategy to Enhance Bone Repair. Presented at the 2012 Annual Meeting of the American Academy of Orthopaedic Surgeons, Feb 7-11, 2012, San Francisco, CA. (**Invited podium presentation for the EOA Ranawat Award**)
13. **Virk MS** Petrigliano FA, Liu NQ, Kang CO, Stout D, Chatziioannaou A, Lieberman JR. The Influence of Simultaneous Targeting of BMP Pathway and RANK-RANKL Axis in a Pure Osteolytic Prostate Cancer Metastasis. Presented at the 54th Annual Meeting of the Orthopaedic Research Society, March 2-5, 2008, San Francisco, CA.

Scientific Exhibits and Posters

1. Mai, D.H., Francis, A., Hamula, M.J., Abramowitz, M., Atlas, A.M., Paoli, A.R., Zuckerman, J.D., **Virk, M.S.** The Utility of Postoperative Inpatient Labs Following Shoulder Arthroplasty. American Academy of Orthopaedic Surgeons Annual Meeting, March 6-10, 2018, New Orleans, LA, USA.
2. Paoli, A.R., Gold, H.T., Mahure, S.A., Mai, D.H., Agten, C.A., Rokito, A.S., **Virk, M.S.** Revision SLAP Repair versus Biceps Tenodesis for Failed Primary Repair of Type-II SLAP Lesions: A Cost-Effectiveness Analysis. Society for Medical Decision Making Annual North American Meeting, October 22nd-25th, 2017. Pittsburgh, PA, USA. (**Nominated for Lee B. Lusted Award**)
3. Paoli AR, Gold HT, Mahure SA, Agten C, Mollon B, Gold H, Rokito AS, **Virk MS.** Treatment Options for Superior Labral Anteroposterior (SLAP) Lesions after Failure of Non-Surgical Management: A Cost-Effectiveness Analysis. Society for Medical Decision Making Annual North American Meeting, October 22nd-25th, 2017. Pittsburgh, PA, USA.
4. Paoli AR, Pickell M, Mahure SA, McAllister D, Mai DH, Alaia MJ, **Virk MS**, Campbell KA. Trends and Risk Factors for One-Year Revision of Latarjet Procedure: The New York State Experience Over the Last Decade. Eastern Orthopaedic Association Meeting, Miami Beach, FL. October 18-21st 2017
5. Mai, D.H., Doany, M.E., Hooper, J.M., Rokito, A.S., Kwon, Y.W., Zuckerman, J.D., **Virk, M.S.** *Primary Shoulder Arthroplasty Outcomes in Patients with Prior Exposure to Bisphosphonates.* American Shoulder and Elbow Surgeons Annual Meeting, October 11-14, 2017, New Orleans, LA, USA
6. James X. Liu, Jordan Werner, Thorsten Kirsch, Joseph D. Zuckerman, **Mandeep Virk** Cytotoxicity Profile of Chlorhexidine Gluconate on Human Fibroblasts, Myoblasts, and Osteoblasts. Eastern Orthopaedic Association’s Annual Meeting, October 18-21, 2017, Miami Beach, FL.
7. Mathew J. Hamula, Albit Paoli, Anna-Marie Francis, David Mai, Joseph D. Zuckerman, **Mandeep S. Virk.** The Utility of Postoperative Inpatient Labs Following Shoulder

- Arthroplasty (ePoster ID 350). 2017 AOA Annual Meeting, June 20-24, 2017, Charlotte, NC.
8. James X. Liu, John Buza, Thorsten Kirsch, Oran Kennedy, Andrew Rokito, Joseph D. Zuckerman, **Mandeep Virk**. Clinically Used Povidone-Iodine Solutions Inhibit Cell Migration and Proliferation of Osteoblasts, Fibroblasts, and Myoblasts In Vitro (ePoster ID 489). 2017 AOA Annual Meeting Charlotte, Jun 20-24, 2017, Charlotte, NC.
 9. Mina Abdelshahed, Christopher Roche, Young W. Kwon, Pierre-Henri Flurin, Thomas Wright, Joseph D. Zuckerman, **Mandeep S. Virk**. Short Term Outcomes using Uncemented Humeral Components in Reverse Total Shoulder Arthroplasty (Poster number: P330). AAOS 2017 Annual Meeting, Mar 14 – 18, San Diego, CA.
 10. James X. Liu, John Buza, Thorsten Kirsch, Oran Kennedy, Andrew Rokito, Joseph D. Zuckerman, **Mandeep Virk**. The Cytotoxicity Profile of Vancomycin Hydrochloride on Proliferating Osteoblasts, Fibroblasts, and Myoblasts (Poster number: P370). Open Meeting of the American Shoulder and Elbow Surgeons on Specialty Day, Mar 18, 2017, San Diego, CA. (**Finalist for the 2017 Neer Award and ASES Resident Research Award**)
 11. Rachel Frank, **Mandeep Virk**, Saleh Aiyash, Brian Cole, Nikhil Verma, Anthony Romeo. Anterior Shoulder Stabilization with Latarjet. Surgical Technique. Orthopaedic Video Theater presentation (Product Number V16092). AAOS 2016 Annual meeting, Mar 1-5, 2016, Orlando, FL.
 12. **Mandeep S Virk**, Jae K Kim, Saleh Aiyash, Brian J Cole, Nikhil N Verma and Anthony A Romeo. Outcomes of Shoulder Hemiarthroplasty and Concentric Glenoid Reaming (Ream and Run Procedure) in Young Patients (Poster number: FP-S06-0133). 5th ICSES meeting, May 18-20 Jeju, Korea.
 13. **Virk MS**, Wetters N, Aiyash S, Magosch P, Kramer B, Barba D, Cohen BS, Lederman E, Habermeyer P, Romeo AA. Rate of Prosthetic Joint Infection (PJI) after Primary Reverse Total Shoulder Arthroplasty with Uncemented Stem: A Multi Institutional Experience (Poster number eSECEC15-2112). 26th Annual SECEC Congress. Sept 16-19, 2015, Milan, Italy.
 14. **Virk MS**, Mellano CS, Frank RM, Aiyash S, Shewman EF, Wang VM, Romeo AA. Biomechanical Comparison of Subscapularis Peel (SP) and Lesser Tuberosity Osteotomy (LTO) Repair Techniques in Cadaveric Shoulder Arthroplasty Model (Poster number: eSECEC15-2111). 26th Annual SECEC Congress. Sept 16-19, 2015, Milan, Italy.
 15. Farhang Alaei, Cynthia Bartholoma, Osamu Sugiyama, **Mandeep Virk**, Manfred Schmidt, Jay Lieberman. Biodistribution of LV-TSTA Transduced Rat Bone Marrow Cells Used For “Ex-vivo” Regional Gene Therapy For Bone Repair (Poster number 1562). 58th Annual Meeting of the Orthopaedic Research Society, Mar 15-18, 2014, New Orleans, LA.
 16. Alaei F, Sugiyama O, **Virk MS**, Tang H, Lichtler A, Lieberman JR. Suicide Gene Therapy Approach With A Dual Expression LV Vector Enhances The Safety Of Ex-Vivo Gene Therapy For Bone Repair (paper number 351). 58th Annual Meeting of the Orthopaedic Research Society, Feb 4-7, 2012, San Francisco, CA. (**New Investigator Recognition Award Finalist**)

17. **Virk MS**, Sugiyama O, Park SH, Gambhir SS, Adams DJ, Drissi H, Lieberman JR. "Same Day" *Ex-Vivo* Regional Gene Therapy: A Novel Strategy to Enhance Bone Repair. 56th Annual meeting of the Orthopaedic Research Society (Poster number: 479), Mar 6-9, 2010, New Orleans, LA; 57th Annual Meeting of the Orthopaedic Research Society (Poster number: 292), Jan 13-16, 2011, Long Beach, CA; 56th Annual Meeting of the American Bone and Mineral Research (Poster number: SU0172), Oct 15-19, 2010, Toronto, Ontario, Canada.
18. **Virk MS**, Petrigliano FA, Liu NQ, Sugiyama O, Alae F, Stout D, Chatziioannaou A, Dougall W, Lieberman JR. Inhibition of BMP Pathway and Osteoclast Activity in Mixed Osteolytic/Osteoblastic Prostate Cancer Lesion in Bone. 31th Annual Meeting of the American Society of Bone and Mineral Research (Poster number: FR0119/SA0119); Sept 12-16, 2009, Denver, CO (***Welcome Reception poster and plenary poster***); 55th Annual Meeting of the Orthopaedic Research Society (Poster number: 86); Feb 22-25, 2009, Las Vegas, NV.
19. **Virk MS**, Saquib S, Alae F, Lieberman JR. Influence of Sclerostin Antibody on Bone Repair in a Rat Femoral Defect Model (Poster number: 607). 55th Annual Meeting of the Orthopaedic Research Society Feb 22-25, 2009, Las Vegas, NV.
20. **Virk MS**, Petrigliano FA, Liu NQ, Stout D, Chatziioannaou A, Lieberman JR. Inhibition of BMP Pathway and Osteoclast Activity in Osteoblastic Prostate Cancer Lesion in Bone (Poster number: F283/Sa283). 30th Annual Meeting of the American Society of Bone and Mineral Research, Sept 12-16, 2008, Montreal, Quebec, Canada (***Welcome Reception poster and plenary poster***).
21. **Virk MS**, Petrigliano FA, Liu NQ, Kang CO, Stout D, Chatziioannaou A, Dougall W, Lieberman JR. The Influence of Simultaneous Targeting of BMP Pathway and RANK-RANKL Axis in Osteolytic Prostate Cancer Metastasis (Poster number: 86). 54th Annual Meeting of the Orthopaedic Research Society; Mar 2-5, 2008, San Francisco, CA.
22. **Virk MS**, Liu NQ, Sugiyama O, Kang CO, Cuomo A, Lieberman JR. Same Day Strategy For Bone Regeneration Using Genetically Modified Bone Marrow Derived Mesenchymal Stem Cells (Poster number: 60). Stem cell conference STEMCONN'07; Mar 28, 2007 Hartford, CT.
23. **Virk MS**, Petrigliano FA, Liu NQ, Kang CO, Stout D, Chatziioannaou A, Lieberman JR. The Use of Micro PET-CT to Assess Tumor Progression and Bone Turnover Following Treatment in Osteolytic Prostate Cancer Metastasis Model. 53rd Annual Meeting of the Orthopaedic Research Society (Poster number: 0982); Feb 11-14, 2007, San Diego, CA; 28th Annual Meeting of the American Society of Bone and Mineral Research; (Poster number: M089) Sept 11-14, 2006, Philadelphia, PA.
24. Cuomo A, **Virk MS**, Petrigliano F, Morgan E, Lieberman JR. Mesenchymal Stem Cell Concentration and Bone Repair: Potential Pitfalls From Bench to Bedside (Poster number: 0450). 53rd Annual Meeting of the Orthopaedic Research Society, Feb 11-14, 2007, San Diego, CA.
25. Conduah A, **Virk MS**, Liu NQ, Sugiyama O, Park SH, Clayton J, Lieberman JR. The Influence of Short-Term, Adenoviral Vector and Prolonged Lentiviral Vector, Gene Expression on the Quality Of Bone Healing in a Rat Femoral Defect Model. 52nd Annual Meeting of the Orthopaedic Research Society (Poster number: 0302); Mar 19-22 2006,

Chicago, IL; 28th Annual Meeting of the American Society of Bone and Mineral Research;
(Poster number: M483) Sept 11-14, 2006, Philadelphia, PA

MODERATOR SCIENTIFIC SESSIONS

1. **Sir Robert Jones Lecture. Upper extremity and Shoulder.** November 9-10, 2017 at NYU Langone Orthopedic Hospital, New York, NY.
2. **Current Concepts in Treatment of Rotator Cuff Tears.** November 18, 2017 at NYU Langone Orthopedic Hospital, New York, NY. Course Director and Moderator

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