

DEMOGRAPHIC AND PERSONAL INFORMATION

Personal Data:

P. Justin Tortolani
MedStar Union Memorial Orthopedics and Sports Medicine
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Baltimore, MD 21204
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Current Appointments: University; Hospital; Other

Chief, Division of Spine Surgery, MedStar Union Memorial Hospital
Director, Spine Research and Education, MedStar Union Memorial Hospital
Director, MedStar Union Memorial Spinal Reconstructive Fellowship
Assistant Professor, part-time staff, Johns Hopkins Medical Institutions, Dept. of Orthopaedic Surgery
Spinal Consultant, Professional: Baltimore Ravens, Baltimore Orioles; Amateur: US Lacrosse, Towson University, Georgetown University, Loyola University

Previous Appointment(s)

2003 – 2010 Spinal Surgeon, Towson Orthopaedic Associates
Co-Director, Maryland Spinal Reconstructive Fellowship

Education and Training (in chronological order):

Undergraduate

1992	BA	Princeton University	Molecular Biology
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Doctoral/graduate

1995	Research Scholar	National Institutes of Health
1997	MD	Weill Cornell Medical College

Postdoctoral

1998	Intern	Johns Hopkins Medical Institutions	General Surgery
2002	House Officer	Johns Hopkins Medical Institutions	Orthopaedic Surgery

2003 Fellow Emory University Spine Center Spinal Surgery

Professional Experience (in chronological order, earliest first)

Dates	Positions	Institutions
2003- 2010	Orthopaedic Surgeon –Adult/ Pediatric Spinal Surgeon	St Joseph Medical Center Johns Hopkins Hospital Greater Baltimore Medical Center

RESEARCH ACTIVITIES

Peer-Reviewed Research Publications

1. **Tortolani, P.J.**, Johnston, J.A., Bacon, C.M., McVicar, D.M., Shimosaka, A., Linnekin, D., Longo, D.L., and O’Shea, J.J. (1995). Thrombopoietin (TPO) Induces Tyrosine Phosphorylation and Activation of the Janus Kinase, JAK2. *Blood*. 1995; 85:3444.
2. Rozbruch, S.R., Crow, M.K., Rozbruch, J.D., **Tortolani, J.**, and Ranawat, C.S., The effect of photochemotherapy (8-Methoxypsorelen and Ultraviolet Light) on Rheumatoid Synovial Lymphocytes: A pilot study. *Orthopaedic Transactions*. 1995; 19:2.
3. Bacon, C.M.*, **Tortolani, P.J.** *, Shimosaka, A., Robert C. Rees, R.C. Longo, D.L., and O’Shea, J.J. Thrombopoietin (TPO) induces tyrosine phosphorylation and activation of STAT5 and STAT3. *FEBS letters*. 1995; 370:63. *contributed equally.
4. Keegan, A.D., Johnston, J.A., **Tortolani, P.J.**, McReynolds, M.J., Kinzer, C., O’Shea, J.J., and Paul, W.E., Similarities and differences in signal transduction by IL-4 and IL-13: Analysis of Janus kinase activation. *Proc. Natl. Acad. Sci.. U.S.A.* 1995; 92:7681, August 1995.
5. **Tortolani, P.J.**, Lal, B.K., Riva, A., Johnston, J.A., Chen, Y-Q, Reaman, G.H., Beckwith, M., Kishore, B., McGrath, I., Kehrl, J., Tuscano, J., McVicar, D.W., and O’Shea, J.J., Regulation of JAK3 Expression and Activation in Human B Cells and B Cell Malignancies. *Journal of Immunology* 1995; 155:5221.
6. **Tortolani, J.**, Kaufman, H.S., Nahebedian, M.Y., and Frassica, F.J. Fistula Between the Rectum and Left Pericapsular Hip After Adjuvant Radiation and Surgical Therapy for Rectal Carcinoma: A Case Report. *Journal of Bone and Joint Surgery*. 1999; 81-A(11):1596-99.

7. **Tortolani, P.J.**, Ain, M.C., Miller, N.H., Brumback, R., Sponseller, P.D.: Novel Technique: Tibial Nails for the Treatment of Femoral Shaft Fractures in Adolescents. *Orthopedics*. 2001; 24(6):553-557.
8. **Tortolani, P.J.**, Sponseller, P.D., and McCarthy, E.F.: Bone Density Deficiency in Children. *J. Am Acad Orthop Surg*. 2002; Jan-Feb; 10 (1):57-66.
9. **Tortolani, P.J.**, Carbone, J.J., Quartararo, L.: Greater Trochanteric Pain Syndrome in Patients Referred to Orthopaedic Spine Specialists. *Spine J*. 2002; 2(4):251-254.
10. Carbone, J.J., Quartararo, L., **Tortolani, P.J.**: Fluoroscopically Assisted Pedicle Screw Fixation for Thoracic and Thoracolumbar Injuries: Technique and Complications. *Spine*. 2003; Jul-Aug; 2 (4):251-4.
11. **Tortolani P.J.**, Park AE, Attallah E, Kraiwattanpong C, Ugbo J-L, Heller JG, Boden SD, and YoonST. The Effects of Doxorubicin on Spinal Fusion: An Animal Model. *Spine J*. 2004; 4(6):669-674.
12. McAfee PC, Geisler FH, Saiedy SS, Moore SV, Regan JJ, Guyer RD, Blumenthal SL, Fedder IL, **Tortolani PJ**, Cunningham B. Revisability of the CHARITE Artificial Disc Replacement: Analysis of 688 Patients Enrolled in the U.S. IDE Study of the CHARITE Artificial Disc. *Spine*. 2006; 31(11):1217-1226.
13. **Tortolani PJ**, Cunningham BC, Vigna F, Hu N, Zorn C, and McAfee PC. Intra-Esophageal Pressure During Anterior Cervical Plating Versus Cervical Disc Replacement: A Cadaveric Study. *Journal Spinal Disord Tech*. 2006 Jul;19(5):312-7.
14. **Tortolani PJ**, Cunningham BC, McAfee PC, Adams K, Holsapple G. The Incidence of Heterotopic Ossification in Total Disk Replacements: A Prospective Randomized FDA Study in 275 Consecutive Patients. *Journal Bone Joint Surg. Am*. 2007 Jan;89(1):82-8.
15. Prybis BG, **Tortolani PJ**, Hu H, Zorn CM, McAfee PC, Cunningham MS. A Comparative Biomechanical Analysis of Spinal Instability and Instrumentation of the Cervicothoracic Junction: An in-vitro Human Cadaveric Model. *Journal Spinal Disord Tech*. 2007 May;20(3):233-8.
16. Singh K, Smucker JD, Ugbo JL, **Tortolani PJ**, Tsai L, Fei Q, Kuh S, Rumi M, Heller JG, Boden SD, Yoon ST. rhBMP-2 enhancement of posterolateral spinal fusion in a rabbit model in the presence of concurrently administered doxorubicin. *Spine J*. 2007 May-Jun;7(3):326-31.
17. Cunningham BW, McAfee PC, Geisler FH, Holsapple G, Adams K, Blumenthal SL, Guyer RD, Cappucino A, Regan JJ, Fedder IL, **Tortolani PJ**. Distribution of in vivo and in vitro range of motion following 1-level arthroplasty with the CHARITE artificial disc compared with fusion. *J Neurosurg Spine*. 2008 Jan;8(1):3-5.

18. McAfee PC, Cunningham BW, **Tortolani PJ**, Fedder IL, Seftor JC, Davis C. 100 Consecutive cases of degenerative lumbar conditions using a non-threaded locking screw system with 90-degree locking cap. *SAS J.* 2009 March 1;3(1):1-11.
19. Kretzer RM, Chaput C, Sciubba DM, Conway JE, Garonzik IG, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. A computed tomography-based feasibility study of translamina screw fixation in the upper thoracic spine. *J Neurosurg Spine.* 2010 March; 12(3):286-92.
20. Kretzer RM, Hu N, Kikkawa J, Garonzik IG, Jallo GI, **Tortolani PJ**, McAfee PC, Cunningham BW. Surgical management of 2- vs. 3-column injuries of the cervicothoracic junction: biomechanical comparison of translamina screw and pedicle screw fixation using a cadaveric model. *Spine.* 2010; 35(19):E948-54.
21. Kretzer RM, Hu N, Umekoji H, Sciubba DM, Jallo GI, **Tortolani PJ**, McAfee PC, Cunningham BW. The effect of spinal instrumentation on kinematics at the cervicothoracic junction: emphasis on soft tissue response using an in-vitro human cadaveric model. *J Neurosurg Spine.* 2010; 13(4):435-42.
22. Kretzer RM, Chaput C, Sciubba DM, Garonzik IG, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. A computed tomography-based morphometric study of thoracic pedicle anatomy in a random US trauma population. *J Neurosurg Spine.* 2011; 14(2):235-43.
23. Molina C, Sciubba DM, Chaput C, **Tortolani PJ**, Jallo GI, Kretzer RM. A Computed tomography-based feasibility study of translamina screw placement in the pediatric thoracic spine. *J Neurosurg Pediatr.* 2012 9(1):27-34
24. Kretzer RM, Hsu W, Hu N, Umekoji H, Jallo GI, McAfee PC, **Tortolani PJ**, Cunningham BW. Adjacent level range of motion and intradiscal pressure after posterior cervical decompression and fixation: an in-vitro human cadaveric model. *Spine.* 2012; 37(13):E778-85.
25. Papadimitriou K, Amin AG, Kretzer RM, Chaput C **Tortolani PJ**, Wolinsky JP, Gokaslan ZL, Baaj AA. The rib head as a landmark in the anterolateral approach to the thoracic spine: a computed tomography-based morphometric study. *J Neurosurg Spine.* 2013;18(5):484-9.
26. **Tortolani PJ**, Moatz BW, Parks BG, Cunningham BW, Seftor DO, Kretzer RM. Effectiveness of a Cadaver Training Module to Teach Thoracic Pedicle Screw Placement to Orthopaedic Residents. *Orthopedics* 2013;36:e1128-e1133.

27. Auerbach M, **Tortolani PJ**. Is it time for a new standard? *Transfusion* 2014;54:263-5.
28. Stroh DA, Tortolani PJ. Cortical Bone Trajectory. *J. Am Acad Orthop Surg.* 2016; Nov;24(11):755-761.
29. Daniels A, Hart R, Hilibrand A, Fish D, Wang J, Lord E, Buser Z, Tortolani PJ, Stroh DA, Nasr A, et al. Iatrogenic spinal cord injury resulting from cervical spine surgery. *Global Spine Journal* 2017;7:84S-90S.
30. Schroeder G, Hilibrand A, Arnold P, Fish D, Wang J, Gum J, Smith Z, Hsu W, Gokaslan Z, Isaacs RE, et al. Epidural hematoma following cervical spine surgery. *Global Spine Journal* 2017;7:120S-6S.
31. Thompson SE, Smith ZA, Hsu WK, Nasr A, Mroz TE, Fish D, Wang J, Fehlings M, Tannoury CA, Tannoury T, et al. C5 palsy after cervical spine surgery: a multi-center retrospective review of 59 cases. *Global Spine Journal* 2017;7:64S-70S.
32. Traynelis V, Malone H, Smith ZA, Hsu WK, Kanter AS, Qureshi SA, Cho SK, Baird EO, Isaacs RE, Rahman RK, et al. Rare complications of cervical spine surgery: Horner's syndrome. *Global Spine Journal* 2017;7:103S-8S.

Extramural Funding (current, pending, previous)

Grants

1. DePuy Funding Grant for Spine Fellowship Research - \$50,000
2. DePuy Spine 2008 – 2009 (Bryan Cunningham, Principal Investigator)

Aim I - “Biomechanical Testing of Translaminar Screw vs. Pedicle Screw Fixation in the Upper Thoracic Spine” - \$10,000

Aim II - “The Impact of Instrumentation and Soft Tissues on Motion at the Cervicothoracic Junction: A Cadaveric Biomechanical Analysis”
3. DePuy Spine 2010 (Bryan Cunningham, Principal Investigator)

- “Changes in Adjacent Level Range of Motion and Intradiscal Pressure after Long Segment Posterior Cervical Fixation – An In-Vitro Human Cadaveric Model” - \$7,500
4. Globus Medical 2011 (Justin Tortolani, Principal Investigator “Effectiveness of a Cadaver Training Module to Teach Thoracic Pedicle Screw Placement to Orthopaedic Residents” - \$5,000
 5. Spineology 2014 (Justin Tortolani, Principal Investigator)
“Cortical (mediolateral, cauda-cranial) Pedicle Screw in lumbar degenerative spondylolisthesis and focal spinal stenosis: Cost-Analysis and Outcomes vs. Traditional Pedicle Screw Fixation” - \$21,125.
 6. Spine Fellowship Grant. K2M. Fellowship year 2017-18. \$25,000
 7. OMeGA 2017-2018 Spine Fellowship Grant for academic excellence. \$5,000

Research Program Building / Leadership

1. February 2004-2006
A Clinical Study of the Dynesys Spinal System As a Non-Fusion Device
IDE # Go20291
Sponsor: Zimmer Spine
Role: Sub-Investigator
2. January 2005 – October 2006
A Prospective, Randomized Clinical Investigation of the Cervitech, Inc. Porous Coated Motion Artificial Disc for Stabilization of the Cervical Spine.
IDE# G040081
Sponsor: Cervitech, Inc.
Role: Sub-Investigator
3. May 2005 – 2006
Pivotal IDE Study of the Wallis Mechanical Normalization System.
IDE# G040186
Sponsor: Abbott Spine
Role: Sub-Investigator
5. October 2005 – 2008
A Clinical Study for the Investigation of the Kineflex Spinal System
IDE# G040198
Sponsor: Spinal Motion
Role: Sub-Investigator

6. September 2006 – 2007
Prospective, Multi-Center Clinical Study to Assess the Safety and Effectiveness of the Impliant TOPS System.
IDE# G060063
Sponsor: Impliant, Ltd.
Role: Sub-Investigator
7. October 2006 – November 2007
Clinical Study for the Investigation of the Kineflex–C Cervical Spinal System.
IDE# G050035
Sponsor: Spinal Motion
Role: Principal Investigator.
8. August 2007 – 2008
Prospective, Multi-Center Randomized Active Controlled Study of the Wallis System for the Treatment of Mild to Moderate Degenerative Disc Disease of the Lumbar Spine.
IDE# SN002-001-06
Sponsor: Abbott Spine
Role: Sub-Investigator
9. November 2007 – 2010
Secure-C IDE Clinical Trial
IDE# G050075
Sponsor: Globus Medical
Role: Sub-Investigator

EDUCATIONAL ACTIVITIES

Educational Publications

Peer-Reviewed Publications

1. McAfee PC, Geisler FH, Saiedy S, Moore SV, Regan JJ, Guyer RD, Blumenthal SL, Fedder IL, **Tortolani PJ**, Cunningham B: Revisability of the CHARITE Artificial Disc Replacement: Analysis of 347 Patients enrolled in the U.S. IDE Study of the CHARITE Artificial Disc, In McAfee PC (ed): Roundtables in Spine Surgery, Complications and Revision Strategies in Lumbar Spine Arthroplasty. 2005; 1(2):73-96.

2. **Tortolani PJ**, Cunningham BW, Vigna FE, Hu N, Zorn CM, McAfee PC: A Comparison of Retraction Pressure During Anterior Cervical Plate Surgery and Cervical Disc Replacement: A Cadaveric Study. In McAfee PC, Anderson PA, Sasso RC (eds): Roundtables in Spine Surgery, Recent Advances in Cervical Arthroplasty. 2007. 2(1):45-54.
3. Gloystein D, **Tortolani PJ**, Stambough JL, Clouse EK: Complications of Spine Surgery: Surgical Site Infections. American Academy of Orthopaedic Surgeons Web site: *Orthopaedic Knowledge Online* 2010;8(7): <http://test2.aaos.org/oko/page.cfm?topic=SPI037>. Accessed May 25, 2010.
4. Moatz B, Ludwig SC, **Tortolani PJ**. Fractures and Dislocations of the Lumbar and Lumbosacral Spine. American Academy of Orthopaedic Surgeons Web site: *Orthopaedic Knowledge Online* 2012;10(8): Accessed July 30, 2012.

Invited Review Articles

1. **Tortolani, P.J.**, McCarthy, E.F., Lietman, S.A., Bluemke, D.A., Zerhouni, E.A., and Frassica, F.J. Soft Tissue Tumors: Distinguishing the benign from the malignant. *J. Musculoskeletal Med.* 1999; 16(8):469-76.
2. **Tortolani, P.J.**, Lemma, M., and Riley, L.H. III: Lumbar Spinal Stenosis in the Elderly. *J. Musculoskeletal Med*, Jan 2004.
3. Vigna F, **Tortolani PJ**. Cervical Myelopathy: Differential Diagnosis. *Seminars in Spine Surgery*. Dec 2004; 16(4):228-233.
4. **Tortolani PJ**, Saiedy SS, McAfee PC. Failures of Lumbar Disc Replacement. *Seminars in Spine Surgery* June 2006; 18(2):78-86.
5. Hebel MH, Saiedy S, **Tortolani PJ**, McAfee PC. Revision of Lumbar Total Disc Arthroplasty and Other Instrumentation. *Seminars in Spine Surgery*. March 2008; 20(1):46-52
6. Hebel MH, **Tortolani PJ**. Idiopathic Scoliosis in Adults: Classification, Indications, and Treatment Options. *Seminars in Spine Surgery*. March 2009; 21(1) 16-23.
7. Carll K, Park AP, **Tortolani PJ**. Epidemiology of Catastrophic Spine Injuries in High School, College, and Professional Sports. *Seminars in Spine Surgery*. 22(4):168-172, 2010.

8. Moatz B, **Tortolani PJ**. Cervical Disc Arthroplasty: Pros and Cons. *Surg Neurol Int Spine* 2012;3, (Suppl) S216-S24.
9. Moatz B, Ludwig SC, **Tortolani PJ**. Fixation in Osteoporotic Patients. *Contemporary Spine Surgery* 2013;14:1-7.
10. Moatz B, **Tortolani PJ**. TLIF and PLIF Utilizing BMP-2 in the Treatment of Degenerative Spondylolisthesis: Neither Safe Nor Cost Effective. *Surg Neurol Int Spine* 2013 Mar;4 (Suppl 2):S67-S73.

Letters, Correspondence

1. **Tortolani, P.J.** The Crossroads: Orthopaedic Surgery Meets Molecular Biology. 1999 Wyeth-Ayerst Resident Report: American Academy of Orthopaedic Surgeons 66th Annual Meeting. Anaheim, CA February, 1999.

Book Chapters, Monographs

1. Lemma M, Herzka A, **Tortolani, J**, Carbone JJ: Cauda equina syndrome secondary to lumbar disc prolapse. In Vaccaro AR, Betz RR, Zeidman SM (eds): *Principles and Practices of Spine Surgery*, pp 347-353, Philadelphia, WB Saunders Co, 2002
2. **Tortolani PJ**, Yoon ST: Cervical Spondylotic Myelopathy. In Frymoyer JW, Wiesel SW (eds): *The Adult and Pediatric Spine 3rd Edition*, pp 701-712, Philadelphia, Lippincott Williams and Wilkins, 2004.
3. Saiedy S, **Tortolani PJ**: Lumbar Anterior Revision: Preoperative Preparation and Approach Considerations. In Yue JJ, Bertagnolli R, McAfee PC, An HS (eds) *Motion Preservation Surgery of the Spine: Advanced Techniques and Controversies*, pp 373-376, Philadelphia, Saunders, 2008.
4. **Tortolani PJ**, Saiedy S, Fedder IN: Anterior Lumbar Approach. In Wiesel SW (ed) *Operative Techniques in Orthopaedic Surgery*, pp 4530-4536, Philadelphia, Lippincott Williams and Wilkins, 2011
5. **Tortolani PJ**, McAfee PC, Scott-Young M: Anterior Lumbar Interbody Fusion, Disc Replacement and Corpectomy. In Wiesel SW (ed) *Operative Techniques in Orthopaedic Surgery*, pp 4634-4645, Philadelphia, Lippincott Williams and Wilkins, 2011.
6. Sinkov V, **Tortolani PJ**. Whiplash Associated Disorders. In Raj Rao (ed): *Orthopaedic Knowledge Update (OKU) Spine 4*: pp 273-282. Rosemont, American Academy of Orthopaedic Surgeons, 2012.

7. Moatz B, **Tortolani PJ**. Lumbar Microdiscectomy. In Flatow E and Colvin AC (eds): Atlas of Essential Orthopaedic Procedures. Rosemont: American Academy of Orthopaedic Surgeons; 2013, p 601-606.
8. Stroh DA, Moatz BW, **Tortolani PJ**. Anterior lumbar interbody fusion, disc replacement, and corpectomy. In: Wiesel SW, editor. Operative Techniques in Orthopaedic Surgery. 2nd ed. Philadelphia: Wolters Kluwer; 2016. p. 5260-71.
9. Stroh DA, Moatz BW **Tortolani, PJ**. Rehabilitation after Spine Surgery – Relevant Anatomy. In Green A, Hayda R, Hecht AC (eds): Postoperative Orthopaedic Rehabilitation. Philadelphia: Wolters Kluwer; 2017. 545-554.
10. **Tortolani PJ**: Posterior lumbar interbody fusion. In Eck JC, Vaccaro AR (eds): Surgical Atlas of Spinal Operations, chap 47. Jaypee Brothers Medical Publishers Ltd, 2017

Other Media (abstracts published at National/International Meetings)

- July 1995 **Tortolani, P.J.**, Johnston, J.A., Bacon, C., Linnekin, D., and O’Shea, J.J. Thrombopoietin induces tyrosine phosphorylation and activation of JAKs and STATs. 9th International Congress of Immunology, San Francisco, CA, July 1995. - Poster
- July 1995 Chen, Y-Q, Johnston, J.A., **Tortolani, P.J.**, Bacon, C., Riedy, M.C., and O’Shea, J.J., Regulation of IL-2-JAK-STAT signaling by activation in human T lymphocytes. 9th International Congress of Immunology, San Francisco, CA, July 1995. - Poster
- June 1995 **Tortolani, P.J.:** Thrombopoietin (TPO) Induces Tyrosine Phosphorylation and Activation of JAK2, STAT5 and STAT3. Presented at the 9th Annual Research Symposium, HHMI-NIH Research Scholars Program.- Poster
- April 2000 **Tortolani, P.J.**, Goldstein, J., Quartararo, L., and Carbone, J.J. Greater trochanteric pain syndrome in patients referred for orthopaedic spine surgery. Maryland Orthopaedic Association 2000 Annual Meeting, Baltimore, MD, April 2000. - Podium
- March 2001 Carbone, J.J., Quartararo, L., **Tortolani, P.J.:** The Use of Thoracic Pedicle Screws For Posterior Spinal Fusions: Technique and Complications. American Academy of Orthopaedic Surgeons 68th Annual Meeting, San Francisco, CA - Poster

- April 2001 **Tortolani, P.J.**, Carbone, J.J., Quartararo, L., Goldstein, J.: Greater Trochanteric Pain Syndrome (Trochanteric Bursitis) in Patients Referred for Orthopaedic Spine Surgery. 34th Annual Residents' Conference, The American Orthopaedic Association and The Orthopaedic Research and Education Foundation, Hershey, Pennsylvania, - Podium
- Nov 2001 Carbone, J.J., Quartararo, L., **Tortolani, P.J.**: The Use of Thoracic Pedicle Screws For Posterior Spinal Fusions: Technique and Complications. Spine, Science, and Management Course for Residents and Fellows. New Orleans, LA - Poster
- May 2002 **P. Justin Tortolani**, MD, John J. Carbone, MD, Louis Quartararo, MD: Prevalence of Greater Trochanteric Pain Syndrome in Low Back Pain. 9th International Meeting on Advanced Spine Techniques. Montreax, Switzerland. - Poster
- October 2002 Gordon, N.E., **Tortolani, P.J.**, and Brushart, T.M.: Innervation of the Elbow. American Society for Surgery of the Hand. October 2002.- Podium
- July 2003 Heller JG, **Tortolani, P.J.**, Park AP, Tong G, and Goffin H. Computed Tomography (CT) Scan Assessment of Paravertebral Bone Formation After Total Cervical Disc Replacement: Temporal Relationships and the Effect of NSAID's CSRS Europe, Barcelona, July 2003.- Podium
- Dec 2003 **Tortolani, P.J.**, Heller JG, Park AP, Tong G, and Goffin H. Computed Tomography (CT) Scan Assessment of Paravertebral Bone Formation After Total Cervical Disc Replacement: Temporal Relationships and the Effect of NSAID's CSRS, Phoenix, AZ.- Podium
- Tortolani P.J.**, Park AE, Attallah E, Kraiwattanpong C, Ugbo J-L, Heller JG, Boden SD, and YoonST. The Effects of Doxorubicin on Spinal Fusion: An Animal Model. CSRS, Phoenix, AZ - Podium
- March 2004 Heller JG, **Tortolani, P.J.**, Park AP, Tong G, and Goffin H. Computed Tomography (CT) Scan Assessment of Paravertebral Bone Formation After Total Cervical Disc Replacement: Temporal Relationships and the Effect of NSAID's. American Academy of Neurological Surgeons, San Diego, CA, March 2004.- Podium
- May 2004 Cunningham BC, **Tortolani PJ**, McAfee PC, Adams K, Holsapple G. The Incidence of Heterotopic Ossification in Total Disk Replacements: A Prospective Randomized FDA Study in 275 Consecutive Patients. Spinal Arthroplasty Society, Vienna, Austria.- podium

- July 2004 **Tortolani PJ**, Cunningham BC, McAfee PC, Adams K, Holsapple G. The Incidence of Heterotopic Ossification in Total Disk Replacements: A Prospective Randomized FDA Study in 275 Consecutive Patients. 11th International Meeting on Advanced Spine Techniques. Bermuda.- Poster
- Sept. 2004 **Tortolani PJ**, Cunningham BC, McAfee PC, Adams K, Holsapple G. The Incidence of Heterotopic Ossification in Total Disk Replacements: A Prospective Randomized FDA Study in 275 Consecutive Patients.39th Annual Scoliosis Research Society. Buenos Aeres, Argentina.- Podium
- October 2004 **Tortolani P.J.**, Park AE, Attallah E, Kraiwattanpong C, Ugbo J-L, Heller JG, Boden SD, and YoonST. The Effects of Doxorubicin on Spinal Fusion: An Animal Model. North American Spine Society, San Diego, CA.- Poster
- Dec 2004 Prybis BG, **Tortolani PJ**, Hu H, Zorn CM, McAfee PC, Cunningham MS. A Comparative Biomechanical Analysis of Spinal Instability and Instrumentation of the Cervicothoracic Junction: An in-vitro Human Cadaveric Model. CSRS, Boston, MA - Podium
- Tortolani PJ**, Cunningham BC, Vigna F, Hu N, Zorn C, and McAfee PC. Intra-Esophageal Pressure During Anterior Cervical Plating Versus Cervical Disc Replacement: A Cadaveric Study. CSRS, Boston, MA - Poster
- Feb 2005 Perez OA, **Tortolani PJ**, Etienne G, McCarthy EF, Jones LC, Hungerford DS, Mont MA. Rapidly Progressive Hip Disease: Demographic, Histopathologic, and Radiographic Aspects. American Academy of Orthopaedic Surgeons, Washington DC - Poster
- March 2005 Cunningham BC, **Tortolani PJ**, McAfee PC, Adams K, Holsapple G. The Incidence of Heterotopic Ossification in Total Disk Replacements: A Prospective Randomized FDA Study in 275 Consecutive Patients. American Academy of Neurological Surgeons. Phoenix, AZ - Podium
- April 2005 McAfee PC, Geisler F, Saiedy S, Moore S, Regan J, Blumenthal S, Guyer R, Fedder I, **Tortolani J**, Cunningham B. Revisability of the Charite Artificial Disc Replacement- Analysis of 347 patients enrolled in the US IDE Study of the Charite Artificial Disc. Spine Arthroplasty Society. New York, NY – Podium
- Dec 2005 Singh K, Smucker JD, Ugbo JL, **Tortolani PJ**, Tsai L, Fei Q, Kuh S, Rumi M, Heller JG, Boden SD, Yoon ST. rhBMP-2 enhancement of posterolateral spinal fusion in a rabbit model in the presence of concurrently administered doxorubicin. CSRS, San Diego, CA – Poster

- May 2007 Cunningham BC, Demuth G, McAfee PC, Scott-Young M, Yoon KJ, Blumenthal S, Guyer RD, Geisler F, Regan J, Conix B, Hes R, Pimenta L, Diaz R, Fedder IL, **Tortolani PJ**. Survivorship Analysis of the Charite Artificial Disc: Review of 1,938 Patients from Eight Leading International Spine Centers. Spine Arthroplasty Society Berlin, Germany – Podium
- July 2007 Cunningham BW, Demuth G, McAfee PC, Scott-Young M, Yoon KJ, Blumenthal SL, Guyer RD, Geisler F, Regan JJ, Conix B, Hes R, Pimenta L, Diaz R, Fedder IL, **Tortolani J**. Survivorship Analysis of the Charite Artificial Disc: Review of 1,938 Patients from 8 Leading International Spine Centers. The 14th International Meeting on Advanced Spine Techniques, Bahamas – Podium
- Tortolani J**, Cunningham BW, Hu N, McLoughlin J, Hess SJ, McAfee PC. A Comparative Biomechanical Analysis of a Novel Anterior Transarticular C1-C2 Instrumentation for Unstable Dens Fractures: An In Vitro Human Cadaveric Model. The 14th International Meeting on Advanced Spine Techniques, Bahamas – Podium
- Sept 2007 **Tortolani J**, Cunningham BW, Hu N, McLoughlin J, Hess SJ, McAfee PC. A Comparative Biomechanical Analysis of a Novel Anterior Transarticular C1-C2 Instrumentation for Unstable Dens Fractures: An In Vitro Human Cadaveric Model. Scoliosis Research Society, Edinburgh, Scotland – Poster
- Oct 2007 McAfee P, Cunningham B, **Tortolani J**, Hebel N. Success Rates of Bone Marrow Aspirate with PEEK Cages versus Allograft in Anterior Cervical Fusion. North American Spine Society, Austin, Texas – Poster P
- Oct 2007 Cunningham BC, Demuth G, McAfee PC, Scott-Young M, Yoon KJ, Blumenthal S, Guyer RD, Geisler F, Regan J, Conix B, Hes R, Pimenta L, Diaz R, Fedder IL, **Tortolani PJ**. Survivorship Analysis of the Charite Artificial Disc: Review of 1,938 Patients from Eight Leading International Spine Centers. North American Spine Society, Austin, Texas – Podium
- May 2008 Klein RA, **Tortolani PJ**, Seftor JS, Hu N, Kikkawa J, McAfee PC, Cunningham BW. A Comparative Analysis of Thoracic Pedicle Pilot Holes vs. Pedicle Screw Insertion Using a Novel Morphologic Landmark. World Spine Congress, Geneva, Switzerland -Poster
- July 2008 **Tortolani PJ**, McAfee PC, Cunningham BW, Donahue M. A Novel Threaded Locking Mechanism for Pedicle Screws in Adult and Pediatric Spinal Deformities: Clinical and Radiographic Outcomes. 15th IMAST, Hong Kong - Poster

Klein RA, **Tortolani PJ**, Sefter JC, Hu N, Kikkawa J, McAfee PC, Cunningham BW. A Comparative Analysis of Thoracic Pedicle Pilot Holes vs. Pedicle Screw Insertion Using a Novel Morphologic Landmark 15th IMAST, Hong Kong - Poster

July 2009 **Tortolani PJ**, Sefter JC, Chaput CD, Kretzer RM, Kikkawa J, Hu N, McAfee PC, Cunningham BW. Assessing the Learning Curve for Freehand Thoracic Pedicle Screw (TPS) Insertion Utilizing a Novel Morphologic Landmark. 16th IMAST, Vienna, Austria – Poster

Saiedy S, McAfee PC, Geisler FH, Moore S, Regan J, Guyer R, Blumenthal S, Fedder IL, **Tortolani PJ**, Cunningham BW. Revision Following Lumbar Total Disc Replacement: Analysis of Reoperations in the US IDE Study of Lumbar Arthroplasty. 16th IMAST, Vienna, Austria: Paper

Oct 2009 Kretzer RM, Chaput C, Sciubba DM, Conway JE, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. A CT-based feasibility study of translaminar screw vs. pedicle screw fixation in the upper thoracic spine. Congress of Neurological Surgeons (CNS) Annual Meeting, New Orleans, LA; Oct. 24-29, 2009.

Kretzer RM, Chaput C, Sciubba DM, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. The effect of spinal level on thoracic pedicle screw trajectory in a random US trauma population. Congress of Neurological Surgeons (CNS) Annual Meeting, New Orleans, LA; Oct. 24-29, 2009.

Kretzer RM, Chaput C, Sciubba DM, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. Variation in thoracic pedicle screw entry point by spinal level. Congress of Neurological Surgeons (CNS) Annual Meeting, New Orleans, LA; Oct. 24-29, 2009: Poster.

Kretzer RM, Chaput C, Sciubba DM, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. The effect of gender on choice of thoracic pedicle screw length and diameter. Congress of Neurological Surgeons (CNS) Annual Meeting, New Orleans, LA; Oct. 24-29, 2009: Poster.

Kretzer RM, Chaput C, Sciubba DM, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. The effect of the aorta on pedicle screw trajectory in the thoracic spine. Congress of Neurological Surgeons (CNS) Annual Meeting, New Orleans, LA; Oct. 24-29, 2009: Poster.

Dec 2009 Kretzer RM, Chaput C, Sciubba DM, Garonzik IM, Jallo GI, McAfee PC, Cunningham BW, **Tortolani PJ**. A CT-based feasibility study of

translaminar screw fixation in the upper thoracic spine. Cervical Spine Research Society (CSRS) 37th Annual Meeting, Salt Lake City, UT; Dec. 2-5, 2009: “Posters Live” Session; Top 5 Abstract Award. Podium

- May 2010 Kretzer RM, Hu N, Kikkawa J, Garonzik IM, Jallo GI, **Tortolani PJ**, McAfee PC, Cunningham BW. Multidirectional flexibility properties of translaminar screw vs. pedicle screw fixation at the cervicothoracic junction – an in-vitro cadaveric model. American Association of Neurological Surgeons (AANS) Annual Meeting, Philadelphia, PA; May 1-5, 2010: Poster.
- Sept 2010 Kretzer RM, Hu N, Umekoji H, Sciubba DM, Jallo GI, McAfee PC, Tortolani PJ, Cunningham BW. The effect of spinal instrumentation on kinematics at the cervicothoracic junction: emphasis on soft tissue response using an in-vitro human cadaveric model. Scoliosis Research Society (SRS) 45th Annual Meeting, Kyoto, Japan; September 21-24, 2010: Poster.
- Oct 2010 Musante DB, Coric D, Guyer RD, Gordon C, Nunley P, Carmody C, Dimmig TA, Taylor W, Buckley R, Rhee J, Gertszten PC, **Tortolani PJ**, Rappaport J, Knight RQ, Dix G, Foley KT, Bitan FD, Bains R, Herkowitz HN. Comparison of Radiographic Findings of Total Disc Replacement vs Anterior Cervical Fusion: 24-Month Follow-up from a Prospective, Randomized, Controlled, Multicenter Trial with 269 Patients. North American Spine Society, Orlando, FL – Paper
- Guyer RD, Coric D, Nunley P, Gordon C, Carmody C, Dimmig TA, Taylor W, Buckley R, Rhee J, Gertszten PC, **Tortolani PJ**, Rappaport J, Knight RQ, Dix G, Foley KT, Bitan FD, Bains R, Herkowitz HN. Prospective, Randomized, Multicenter Trial Comparing Cervical Disc Replacement to Anterior Cervical Fusion in 269 Patients: 24-Month Follow-up. North American Spine Society, Orlando, FL – Paper.
- Dec 2011 Kretzer RM, Hsu W, Hu N, Umekoji H, Jallo GI, McAfee PC, **Tortolani PJ**, Cunningham BW. Adjacent Level Stress following Long Segment Posterior Cervical Decompression and Fixation: An *In Vitro* Human Cadaveric Model. Cervical Spine Research Society, Charlotte, NC – Paper -Resident/Fellow Research Award – 3rd Place
- Cunningham BC, McAfee PC Sciubba DM, Kretzer RM, Hu N, Jallo GI, Umekoji H, **Tortolani PJ**. The Effect of Spinal Instrumentation on Kinematics at the Cervicothoracic Junction: Emphasis on Soft Tissue Responses Using an *In Vitro* Human Cadaveric Model. Cervical Spine Research Society, Charlotte, NC – Paper

- July 2013 Moatz BW, Tortolani PJ, Cunningham BW. Defining the learning curve for thoracic pedicle screw placement among orthopedic residents. North American Spine Society (NASS), Naples, FL- Paper
- March 2014 Moatz BW, Tortolani PJ, Cunningham BW. Defining the learning curve for thoracic pedicle screw placement among orthopedic residents. Medstar Health Research Symposium, Columbia, MD. - Poster
- Tortolani PJ. How to achieve compliance with outcomes data using an E-data collection method. 10th Annual Evidence and Technology Spine Summit of the North American Spine Society (NASS), Park City, UT. – Poster.
- Tortolani P.J. Open decompression and fusion remain the gold standard for degenerative spondylolisthesis and stenosis. Presented at the Federation of Spine Associations Specialty Day of the American Academy of Orthopaedic Surgeons (AAOS), New Orleans, LA, March 28, 2014.
- March 2016 Stroh, DA, Quattro, L, Udan, J, Camire, LM, **Tortolani, PJ**. Cortical versus traditional pedicle screw fixation: cost analysis and outcomes. Presented as poster at the MedStar Health Research Symposium, Columbia, Maryland, March 14, 2016. Poster
- Sept 2017 Stroh D, Udan J, Quattro L, Yu-Yahiro JA, **Tortolani PJ**. Reduced Length of Stay and Contained Hospital Costs with Cortical Pedicle Screws: A Prospective Cohort Study. North American Spine Society (NASS), Orlando, FL- Poster
- Tortolani P**, Kempegowda H, Wang W, Trontis A, Quattro L, Hussain M, Cunningham B. Impaction Grafting Increases Bone Contact Area During TLIF: A Quantitative in vitro Comparative Study and Early Clinical Results. North American Spine Society (NASS), Orlando, FL – Poster
- Oct 2017 **Tortolani P**, Kempegowda H, Wang W, Trontis A, Quattro L, Hussain M, Cunningham B. Impaction Grafting Increases Bone Contact Area During TLIF: A Quantitative in vitro Comparative Study and Early Clinical Results. Eastern Orthopaedic Association 48th Annual Meeting, Miami, FL – Podium
- Feb 2017 **Tortolani P**, Kempegowda H, Wang W, Trontis A, Quattro L, Hussain M, Cunningham B. Impaction Grafting Increases Bone Contact Area During TLIF: A Quantitative in vitro Comparative Study and Early Clinical Results. Maryland Orthopaedic Association Annual Meeting, Annapolis, MD – Poster

Teaching

Classroom Instruction

- 1996-1997 George N. Papanicolaou Fellow in Clinical Anatomy, Department of Cell Biology and Anatomy, Cornell University Medical College, Gross Anatomy Course, *Gross Anatomy Laboratories*
- 2001-2002 “Chief Rounds”. Dept of Orthopaedic Surgery, The Johns Hopkins Hospital. Instructor and curriculum development for weekly didactic sessions for junior orthopaedic surgery residents

CME Instruction

- April 2001 Current Concepts in Geriatric Orthopaedics, “Lumbar Stenosis in the Elderly”, Baltimore, MD
- May 2005 The Spine Study Group 16th Symposium “New Technology: Concepts and Controversies”, Palm Beach, FL.
- “Minimally Invasive Trans-psoas and Trans-sacral Fusions”
 - “Spondylolisthesis debate: Transforaminal Lumbar Interbody Fusion”
- May 2006 Primary Care Approach to Treating the Injured Athlete, “Spondylolisthesis”. Baltimore, MD
- May 2006 The Spine Study Group 17th Symposium, “New Technology: Concepts and Controversies”, Palm Beach, FL
- “Advances in Cervical Fixation”
 - “Lumbar Disc Debate: Charite”
 - “Interspinous Spacers”
- Nov 2006 Musculoskeletal Education Research - Monterey, CA
- “Classification Systems – Defining Cervical Instability”
 - “Avoiding Complications in Lumbar Disc Replacement”
- May 2007 The Spine Study Group 18th Symposium – Palm Beach, FL
- “Complications of Cervical Disc Replacement”
 - “Complications of Lumbar Disc Replacement”

- Feb 2008 Federation of Spine Associations: Specialty Day. American Academy of Orthopaedic Surgeons. Las Vegas, NV
- Debate: Operative Management of Adult Scoliosis
- May 2009 The Spine Study Group 20th Symposium – Palm Beach, FL
- “Alternative Income Streams”
 - “Surgery for Axial Neck Pain: If and When”
- May 2010 The Spine Study Group 21th Symposium – Palm Beach, FL
- “Cervical Disc Replacement for Myelopathy
- Oct 2010 Pediatric Symposium – Union Memorial Hospital, Baltimore, MD
- “Adolescent Idiopathic Scoliosis: An Update”
- May 2011 The Spine Study Group 22nd Symposium – Palm Beach, FL
- May 2012 The Spine Study Group 23rd Symposium – Palm Beach, FL
- Infuse for TLIF: Are you Crazy
 - I’d still have an ACDF if it were my neck
- Feb 2013 The Association of Collaborative Spine Research – Spine Study Group – San Diego, CA
- Who is at Risk for PJK and How This Influences Selection of Proximal Levels
 - Anterior Corpectomy, Decompression, Reconstruction
- March 2103 Federation of Spine Associations: Specialty Day. American Academy of Orthopaedic Surgeons. Chicago, IL
- What are the Current Day Indications for Halo Vest Application and What are the Reported Complications?
- May 2013 Grand Rounds- Johns Hopkins Dept. of Orthopaedic Surgery.
- Gifted Thumbs: How Surgical Residents Acquire Surgical Acumen
- Jan 2014 The Association of Collaborative Spine Research – Spine Study Group – San Diego, CA
- Proximal thoracolumbar junctional failure: Tips for Avoidance and Treatment
 - Treat the Curve, Avoid the Inevitable
- March 2014 Federation of Spine Associations: Specialty Day. American Academy of Orthopaedic Surgeons. New Orleans, LA

- Open Decompression and Fusion Remain the Gold Standard for Degenerative Spondylolisthesis and Stenosis.

May 2015 The Association of Collaborative Spine Research – Spine Study Group – Miami, FL

- Thoracolumbar burst fractures with neurologic deficit: Posterior approach is best.

Clinical Instruction

May 2006 Spine Reconstruction Techniques, Course Faculty and Instructor, Vitruvian Institute, Baltimore, MD

March 2007 Hands-On Spine Surgery Review Course: Course Faculty and Instructor, Johns Hopkins International Center for Orthopaedic Advancement, Baltimore, MD

May 2007 Spine Reconstruction Techniques, Johns Hopkins Dept of Neurosurgery Resident Instruction. Course Faculty and Instructor, Vitruvian Institute, Baltimore, MD

April 2009 Orthopaedic Boards Review Course and Osteotomy Workshop, Globus Medical Headquarters, Audobon, PA.

Workshops/seminars

Jan 2004 Charite Lumbar Disc Replacement: Surgeon Education and Training. Course Faculty, DePuy-Spine Training Facility, Cincinnati, OH.

May 2004 Charite Lumbar Disc Replacement: Surgeon Education and Training Course Faculty, DePuy-Spine Training Facility, Cincinnati, OH.

July 2004 Charite Lumbar Disc Replacement: Surgeon Education and Training. Course Faculty, DePuy-Spine Training Facility, Cincinnati, OH

Oct 2004 Porous Coated Motion Cervical Disc Replacement: Surgeon Education and Training, Course Faculty, Karlsbad, Germany

Online

2004-2005 The Spine Forum, Co-Director for educational, interactive spine website for residents, fellows, attending surgeons

Mentoring

Spine Fellows

2003-2004

- Franco Vigna, MD, 6934 William Rd, Niagara Falls, NY 14304
- Stacy Dinkins, DO, 113 Highway 70 E., Dickson, TN 37055-2080
- Brad Prybis, MD, 150 Clinic Ave Suite 101, Carrollton, GA 30117

2004-2005

- Jason Bergandi, MD, 510 Lincoln Ave., Herrin, IL 62948
- Sam Hess, MD, 1641 Tamiami Trail Suite 1, Port Charles, FL 37848
- James McLoughlin, MD, 1515 N. Madison Ave., Anderson, IN 46011

2005-2006

- Victor Hayes, MD, 8849 Hawbuck St., Trinity, FL 34655
- Farhan Siddiqi, MD, 8849 Hawbuck St., Trinity, FL 34655
- Mike Dabbah, MD, 86 Thomas Johnson Ct., Frederick, MD 21702

2006-2007

- Spencer Stoetzel, MD, 1221-A Hodges Dr., Tallahassee, FL 32308
- Nick Grimaldi, DO, 420 West Norris Blvd., Suite D, Morristown, TN 37813
- Nader Hebel, MD, 3400 Spruce St., Philadelphia, PA 19104

2007-2008

- Michael Donahue, DO, Detroit Michigan
- Charles Davis, MD, Glen Burnie, MD
- Richard Klein, MD, Princeton, NJ

2008-2009

- Ivan Lamotta, MD, Columbia, SC

- David Gloystein, MD, Temple, TX
- 2009-2010
- Vladimir Sinkov, MD, Manchester, NH
- 2016-17
- Harish Kempekowda MBBS, Boston University, MA
- 2017-18
- Abhijeet Kadam MBBS, Current Fellow

Educational Program Building / Leadership

- 2010-present Chief, Spine Division
 Director, Spine Research and Education.
 Director, Reconstructive Spine Fellowship
 MedStar Union Memorial Hospital Dept of Orthopaedic Surgery
- 2003-2010 Co-Director, Maryland Spinal Reconstructive Fellowship

CLINICAL ACTIVITIES

Certification

- 2003 License, State of Maryland #D59863
- 2005 Diplomat, American Board of Orthopaedic Surgery

Clinical Responsibilities

- 2010-present Attending Orthopaedic and Spine Surgeon
 Full-time Staff: Union Memorial Hospital
 Part-time Staff: Johns Hopkins Hospital
- 2003-2010 Attending Orthopaedic and Spine Surgeon
 Full-time Staff: St Joseph Medical Center and Greater Baltimore
 Medical Center
 Part-time Staff: Johns Hopkins Hospital

Clinical Program Building / Leadership

Adult and Pediatric Scoliosis Center, MedStar Union Memorial Hospital

Scoliosis and Spine Center of Maryland, St Joseph Medical Center

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2006-2010	Executive Committee, Towson Orthopaedic Associates
2005-2009	Patient Safety Committee, St Joseph Medical Center
2008	Search Committee, Chief of General Surgery, St Joseph Medical Center
2010-present	Resident Credentialing Committee, MedStar Union Memorial Hospital Dept. of Orthopaedic Surgery Orthopaedic Research Committee, MedStar Union Memorial Hospital, Dept. of Orthopaedic Surgery Surgery Policy Committee, MedStar Union Memorial Hospital
2015-present	Philanthropy Committee, MedStar Union Memorial Hospital Graduate Medical Education Committee, MedStar Union Memorial Hospital
2013-2018	Board of Directors, Medstar Union Memorial Hospital

Professional Societies

North American Spine Society
Scoliosis Research Society
American Academy of Orthopaedic Surgeons
Alpha Omega Alpha
Cervical Spine Research Society

Consultantships (date, organization/agency, role)

2004	Co-Director for online, interactive website, The Spine Forum Stryker Spine
2004	Speaker and Course Faculty for Surgeon Education Charite Disc Replacement, DePuy Spine
2006-Present	Designer of Spinal Deformity Implant System, Globus Medical

RECOGNITION

Awards, Honors, Distinctions

- June 1991 GTE Academic All-American: First Team
- June 1992 Princeton University
- Magna cum laude, Princeton University
 - E.R. Squibb Thesis Prize, Princeton Univ., Outstanding Thesis in Department of Molecular Biology
 - Captain, NCAA Division I Lacrosse Championship team
 - William Winston Roper Trophy, Male Athlete of the Year, Princeton Univ.
 - Higginbotham Trophy, Most Valuable Player, Men's Lacrosse Princeton Univ.
 - GTE Academic All-American: First Team
 - USILA All-American
- May 1995 Cornell University Medical College
- MD with Honors in Research. Cornell University Medical College
 - Alan von Kreuter Cancer Research Prize. Cornell University Medical College, Outstanding research in the basic mechanisms of cancer and related disease.
- May 1996 Alpha Omega Alpha, Cornell University Medical College
- May 1997 Dean William Mecklenburg Polk Prize, Outstanding Basic Science Research, Cornell University Medical College
- June 1998 Arnold M. Seligman Award, Most Outstanding Surgical Resident, The Johns Hopkins Hospital and Sinai Hospital of Baltimore
- May 1999 Manhasset High School Lacrosse Hall of Fame
- Oct 2002 Emanuel B. Kaplan Award, American Society for Surgery of the Hand Anatomical Excellence in Surgery of the Hand
- Sept 2007 Finalist, Moe Award for Basic Science Research, Scoliosis Research Society
- Feb 2008 Edgar Dawson Traveling Fellowship, Scoliosis Research Society

Hospital for Joint Diseases, Host: Frank Schwab, MD

- May 2008 Peter Mack Memorial Lecture – Johns Hopkins Medical Institutions, Dept of Orthopaedic Surgery
- Nov 2008 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Nov 2009 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Oct 2010 Best Paper Award, North American Spine Society (Proceedings of the NASS 25th Annual Meeting/The Spine Journal 10 (2010) 1S-179S, p 32S.
- Dec 2010 Resident/Fellow Best Paper Award, 3rd Place. Cervical Spine Research Society (Co-author).
- July 2012 Consulting Editor. *Surgical Neurology International* – SNI: Spine
- Nov 2012 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Feb 2013 Association of Collaborative Spine Research – Spine Study Group 1st Annual Meeting, San Diego California. Course Co-Chairman
- Mar 2013 Associate Editor. *Spine Deformity*. The Official Journal of the Scoliosis Research Society.
- Nov 2013 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Nov 2014 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Nov 2015 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Nov 2016 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine
- Nov 2017 “Top Docs” Orthopaedic Spine, as voted by peers, Baltimore Magazine