

# Scientific Publications Featuring Medical Metrics' Technology and Methods for Spine Clinical Trials

The following bibliography features peer-reviewed journal articles, book chapters, and industry guidance documents involving work performed by Medical Metrics during spine clinical trials and research studies.

1. Guyer RD, Coric D, Nunley PD, Ohnmeiss DD. **Cervical Total Disk Replacement: Available Implant Size Matters.** *Clin Spine Surg.* 2022 May 1;35(4):166-169.
2. John A. Hipp, Trevor F. Grieco, Patrick Newman, Vikas V. Patel, Charles A. Reitman. **Factors in measuring lumbar spondylolisthesis with reference data from NHANES-II.** (not peer-reviewed)
3. Hipp JA, Grieco TF, Newman P, Reitman CA. **Definition of Normal Vertebral Morphometry Using NHANES-II Radiographs.** *JBMR Plus.* 2022 Sep 27;6(10):e10677.
4. Blumenfeld TJ, Politi J, Coker S, O'Dell T, Hamilton W. **Long-Term Results of Delta Ceramic-on-Ceramic Total Hip Arthroplasty.** *Arthroplast Today.* 2022 Jan 18;13:130-135.
5. Daniel Park, Joshua Wind, Todd Lansford et al. **Twenty-four-month interim results from a prospective clinical trial evaluating the performance and safety of a cellular bone allograft in patients undergoing lumbar spinal fusion.** 13 July 2022, PREPRINT (Version 1) available at Research Square.
6. McEntire BJ, Maslin G, Bal BS. **Two-year results of a double-blind multicenter randomized controlled non-inferiority trial of polyetheretherketone (PEEK) versus silicon nitride spinal fusion cages in patients with symptomatic degenerative lumbar disc disorders.** *J Spine Surg.* 2020 Sep;6(3):523-540.
7. Coric D, Guyer RD, Bae H, Nunley PD, Strenge KB, Pelozo JH, Boltes MO, Ohnmeiss DD. **Prospective, multicenter study of 2-level cervical arthroplasty with a PEEK-on-ceramic artificial disc.** *Journal of Neurosurgery: Spine* 2022, 1(aop):1-11.
8. Daffner SD, Bunch JT, Burton DC, Milam IV RA, Park DK, Strenge KB, Whang PG, An HS, Kopjar B. **Better Functional Recovery After Single-Level Compared With Two-Level Posterolateral Lumbar Fusion.** *Cureus* 2022, 14(3).
9. Kumar N, Liu ZJ, Poon WS, Park C-K, Lin R-M, Cho K-S, Niu CC, Chen HY, Madhu S, Shen L. **ProDisc-C versus anterior cervical discectomy and fusion for the surgical treatment of symptomatic cervical disc disease: two-year outcomes of Asian prospective randomized controlled multicentre study.** *European Spine Journal* 2022, 31(5):1260-1272.
10. Spivak JM, Zigler JE, Philipp T, Janssen M, Darden B, Radcliff K. **Segmental Motion of Cervical Arthroplasty Leads to Decreased Adjacent-Level Degeneration: Analysis of the 7-Year Postoperative Results of a Multicenter Randomized Controlled Trial.** *International Journal of Spine Surgery* 2022, 16(1):186-193.
11. Boody B, Khalil J, Grunch B, Musacchio M, Vokshoor A. **Preliminary 12-Month Safety and Efficacy Outcomes for the Treatment of Cervical Radiculopathy and Myelopathy with the Stalif-C Integrated Interbody Fusion Device.** *Journal of Surgery & Anesthesia Research SRC/JSAR-133 DOI: [https://doi.org/10.47363/JSAR/2021\(2\)2021](https://doi.org/10.47363/JSAR/2021(2)2021)*, 128:3.
12. Guyer RD, Coric D, Nunley PD, Sasso RC, Musacchio M, Bae HW, Pelozo JH, Ohnmeiss DD. **Single-Level Cervical Disc Replacement Using a PEEK-on-Ceramic Implant: Results of a Multicenter FDA IDE Trial With 24-Month Follow-up.** *International Journal of Spine Surgery* 2021, 15(4):633-644.
13. Hunt JP, Begley MR, Block JE. **Truss Implant Technology™ for Interbody Fusion in Spinal Degenerative Disorders: Profile of Advanced Structural Design, Mechanobiologic and Performance Characteristics.** *Expert Review of Medical Devices* 2021; 18(8):707-15.
14. Kersten R, Öner F, Arts M, Mitroiu M, Roes K, de Gast A, van Gaalen S. **The SNAP Trial: 2-Year Results of a Double-Blind Multicenter Randomized Controlled Trial of a Silicon Nitride Versus a PEEK Cage in Patients After Lumbar Fusion Surgery.** *Global Spine Journal* 2021:2192568220985472.
15. Kim K, Hoffman G, Bae H, Redmond A, Hisey M, Nunley P, Jackson R, Tahernia D, Araghi A. **Ten-year outcomes of 1-and 2-level cervical disc arthroplasty from the Mobi-C investigational device exemption clinical trial.** *Neurosurgery* 2021, 88(3):497-505.

16. Phillips FM, Coric D, Sasso R, Lanman T, Lavelle W, Blumenthal S, Laurysen C, Guyer R, Albert T, Zigler J. **Prospective, multicenter clinical trial comparing M6-C compressible six degrees of freedom cervical disc with anterior cervical discectomy and fusion for the treatment of single-level degenerative cervical radiculopathy: 2-year results of an FDA investigational device exemption study.** *The Spine Journal* 2021, 21(2):239-252.
17. Smucker JD, Sasso RC. Cervical Total Disc Replacement: Biomechanics. In: *Handbook of Spine Technology*. edn.: Springer; 2021: 789-806.
18. Braunstein J, Hipp JA, Browning R, Grieco TF, Reitman CA. **Analysis of translation and angular motion in loaded and unloaded positions in the lumbar spine.** *North American Spine Society Journal (NASSJ)* 2020, 4:100038.
19. Grinberg SZ, Simon RB, Dowe C, Breceovich AT, Cammisa FP, Abjornson C. **Interlaminar stabilization for spinal stenosis in the Medicare population.** *The Spine Journal* 2020, 20(12):1948-1959.
20. McEntire BJ, Maslin G, Bal BS. **Two-year results of a double-blind multicenter randomized controlled non-inferiority trial of polyetheretherketone (PEEK) versus silicon nitride spinal fusion cages in patients with symptomatic degenerative lumbar disc disorders.** *Journal of Spine Surgery* 2020, 6(3):523.
21. Nunley PD, Kerr EJ, Cavanaugh DA, Utter PA, Campbell PG, Wadhwa R, Frank KA, Marshall KE, Stone MB. **Adjacent segment pathology after treatment with cervical disc arthroplasty or anterior cervical discectomy and fusion, part 2: clinical results at 7-year follow-up.** *International Journal of Spine Surgery* 2020, 14(3):278-285.
22. Sang D, Cui W, Guo Z, Sang H, Liu B. **The Differences Among Kinematic Parameters for Evaluating the Quality of Intervertebral Motion of the Cervical Spine in Clinical and Experimental Studies: Concepts, Research and Measurement Techniques.** A Literature Review. *World Neurosurgery* 2020, 133:343-357. e341.
23. Bolger C, Jones D, Czop S. **Evaluation of an increased strut porosity silicate-substituted calcium phosphate, SiCaP EP, as a synthetic bone graft substitute in spinal fusion surgery: a prospective, open-label study.** *European Spine Journal* 2019, 28(7):1733-1742.
24. Fernández-Fairen M, Alvarado E, Torres A. **Eleven-year follow-up of two cohorts of patients comparing stand-alone porous tantalum cage versus autologous bone graft and plating in anterior cervical fusions.** *World neurosurgery* 2019, 122:e156-e167.
25. Health Quality Ontario. **Cervical Artificial Disc Replacement Versus Fusion for Cervical Degenerative Disc Disease: A Health Technology Assessment.** *Ont Health Technol Assess Ser* 2019; 19(3):1-223.
26. Wong H-K, Ruiz JNM, Newton PO, Liu K-PG. **Non-fusion surgical correction of thoracic idiopathic scoliosis using a novel, braided vertebral body tethering device: minimum follow-up of 4 years.** *JBJS Open Access* 2019, 4(4).
27. Abjornson C, Yoon B-JV, Callanan T, Shein D, Grinberg S, Cammisa FP. **Spinal stenosis in the absence of spondylolisthesis: can interlaminar stabilization at single and multi-levels provide sustainable relief?** *International journal of spine surgery* 2018, 12(1):64-69.
28. Arnold PM, Sasso RC, Janssen ME, Fehlings MG, Heary RF, Vaccaro AR, Kopjar B. **i-Factor™ Bone Graft vs. Autograft in Anterior Cervical Discectomy and Fusion: 2-Year Follow-Up of the Randomized Single-Blinded Food and Drug Administration Investigational Device Exemption Study.** *Neurosurgery* 2018; 83(3):377-384.
29. Bassani T, Sconfienza LM and Galbusera F. **In Vivo Studies: Spinal Imaging.** In: *Biomechanics of the Spine: Basic Concepts, Spine Disorders and Treatments*. eds Galbusera F and Wilke H-J. *Elsevier Academic Press*, London, 2018.
30. Coric D, Guyer RD, Nunley PD, Musante D, Carmody C, Gordon C, Laurysen C, Boltz MO, Ohnmeiss DD. **Prospective, Randomized, Multi-center Study of Cervical Arthroplasty versus Anterior Cervical Discectomy and Fusion: 5-Year Results with a Metal-on-Metal Artificial Disc.** *J Neurosurgery Spine* 2018; 28:252-261.
31. Coughlan M, Davies M, Mostert AK, Nanda D, Willems PC, Rosenberg G, Ferch R. **A prospective, randomized, multicenter study comparing silicated calcium phosphate versus BMP-2 synthetic bone graft in posterolateral instrumented lumbar fusion for degenerative spinal disorders.** *Spine* 2018, 43(15):E860-E868.
32. Cross WW, Delbridge A, Hales D, Fielding LC. **Minimally invasive sacroiliac joint fusion: 2-year radiographic and clinical outcomes with a principles-based SIJ fusion system.** *The open orthopaedics journal* 2018, 12:7.
33. Hosseini P, Carl A, Grevitt M, Nnadi C, Repko M, Crandall DG, Aydinli U, Reháč Ľ, Zabka M, Seme S. **Preservation of Spine Motion in the Surgical Treatment of Adolescent Idiopathic Scoliosis Using an Innovative Apical Fusion Technique: A 2-Year Follow-Up Pilot Study.** *International journal of spine surgery* 2018, 12(4):441-452.

34. Kuršumovic A, Kienzler JC, Bouma GJ, Bostelmann R, Heggeness M, Thomé C, Miller LE, Barth M, group ACRs. **Morphology and clinical relevance of vertebral endplate changes following limited lumbar discectomy with or without bone-anchored annular closure.** *Spine* 2018, 43(20):1386-1394.
35. McAfee PC, Cunningham B, Mullinex K, Dobbs E, Eiserman L. **Middle-column gap balancing and middle-column mismatch in spinal reconstructive surgery.** *International journal of spine surgery* 2018, 12(2):160-171.
36. Schmidt S, Franke J, Rauschmann M, Adelt D, Bosanto M, Sola S. **Prospective, Randomized, Multicenter Study with 2-year Follow-up to Compare the Performance of Decompression with and without Interlaminar Stabilization.** *J Neurosurg Spine* 2018:1-10.
37. Simon RB, Dowe C, Grinberg S, Cammisa FP, Abjornson C. **The 2-Level Experience of Interlaminar Stabilization: 5-Year Follow-Up of a Prospective, Randomized, Clinical Experience Compared to Fusion for the Sustainable Management of Spine Stenosis.** *Int J Spine Surg* 2018; 12(4):419-427.
38. Vaccaro A, Beutler W, Peppelman W, Marzluff J, Mugglin A, Rmakrishnan PS, Myer J, Baker K. **Long-Term Clinical Experience with Selectively Constrained SECURE-C Cervical Artificial Disc for 1-Level Cervical Disc Disease: Results from Seven-Year Follow-Up of a Prospective, Randomized, Controlled Investigational Device Exemption Clinical Trial.** *Int J Spine Surg* 2018; 12(3):377-387.
39. Zigler JE, Blumenthal SL, Guyer RD, Ohnmeiss DD, Patel L. **Progression of adjacent-level degeneration after lumbar total disc replacement: results of a post-hoc analysis of patients with available radiographs from a prospective study with 5-year follow-up.** *Spine* 2018, 43(20):1395.
40. Abbasi H, Hipp JA. **The Assessment of Fusion Following Sacroiliac Joint Fusion Surgery.** *Cureus* 2017, 9(10):e1787.
41. Arts MP, Wolfs JF, Corbin TP. **Porous Silicon Nitride Spacers Versus PEEK Cages for Anterior Cervical Discectomy and Fusion: Clinical and Radiological Results of a Single-blinded Randomized Controlled Trial.** *European Spine Journal* 2017:1-8.
42. Ball H, McEntire B, Bal B. **Accelerated cervical fusion of silicon nitride versus PEEK spacers: a comparative clinical study.** *J Spine* 2017, 6(6):1000396.
43. Coathup MJ, Blunn GW, Campion C, Ho CY, Hing KA. **The Effect of Increased Microporosity on Bone Formation within Silicate-Substituted Scaffolds in An Ovine Posterolateral Spinal Fusion Model.** *Journal of Biomedical Materials Research Part B: Applied Biomaterials* 2017; 105(4):805-814.
44. Dufour T, Huppert J, Steib J-P. **Long-Term Clinical Results of Cervical Total Disc Replacement with a Self-Adjusting Mobile Core Prosthesis after 10-Year Follow-Up.** *The Spine Journal* 2017, 17(10):S116.
45. Peppers TA, Bullard DE, Vanichkachorn JS, *et al.* **Prospective Clinical and Radiographic Evaluation of an Allogeneic Bone Matrix Containing Stem Cells (Trinity Evolution® Viable Cellular Bone Matrix) in Patients Undergoing Two-level Anterior Cervical Discectomy and Fusion.** *Journal of Orthopaedic Surgery and Research* 2017; 12(1):67.
46. Radcliff K, Davis RJ, Hisey MS, Nunley PD, Hoffman GA, Jackson RJ, Bae HW, Albert T, Coric D. **Long-term evaluation of cervical disc arthroplasty with the Mobi-C® cervical disc: a randomized, prospective, multicenter clinical trial with seven-year follow-up.** *International journal of spine surgery* 2017, 11(4).
47. Robbins S, Laurysen C, Songer M. **Use of Nanocrystalline Hydroxyapatite with Autologous BMA and Local Bone in the Lumbar Spine. A Retrospective Analysis of Posterolateral Fusion Results.** *Clin Spine Surg* 2017; 30:E192-197.
48. Sasso RC, Phillips FM, Guyer RD, Sama AA, Cammisa FP, Blumenthal SL, Albert TJ, Zigler JE. **M6-C artificial cervical disc: two-year follow-up at five IDE investigation centers.** *The Spine Journal* 2017, 17(10):S116.
49. Arnold PM, Sasso RC, Janssen ME, Fehlings MG, Smucker JD, Vaccaro AR, Heary RF, Patel AI, Goulet B, Kalfas IH, Kopjar B. **Efficacy of I-Factor Bone Graft versus Autograft in Anterior Cervical Discectomy and Fusion: Results of the Prospective, Randomized, Single-blinded Food and Drug Administration Investigational Device Exemption Study.** *Spine* 2016; 41(13):1075-83.
50. Bae HW, Davis RJ, Laurysen C, Leary S, Maislin G, Musacchio Jr MJ. **Three-year Follow-up of the Prospective, Randomized, Controlled Trial of coflex Interlaminar Stabilization vs Instrumented Fusion in Patients with Lumbar Stenosis.** *Neurosurgery* 2016; 79(2):169-181.
51. Barth M, Fontana J, Thomé C, Bouma GJ, Schmieder K. **Occurrence of Discal and Non-discal Changes After Sequestrectomy Alone Versus Sequestrectomy and Implantation of An Anulus Closure Device.** *Journal of Clinical Neuroscience* 2016.

52. Becker S, Hadjipaviou AG, Heggeness MH. **Ablation of the Basivertebral Nerve for Treatment of Back Pain: A Clinical Study.** *The Spine Journal* 2016;17(2):218-223.
53. Garcia R, Yue JJ, Blumenthal SL, Coric D, Patel VV. **Lumbar Total Disc Replacement for Discogenic Low Back Pain: Primary Powered Endpoint Outcomes of the ActivL® IDE Clinical Trial.** *The Spine Journal* 2016; 16(10):S260.
54. Guyer RD, Pettine K, Roh JS, Dimmig TA, Coric D, McAfee PC, *et al.* **Five-year Follow-up of a Prospective, Randomized Trial Comparing Two Lumbar Total Disc Replacements.** *Spine* 2016; 41(1):3-8.
55. Hisey MS, Zigler JE, Jackson R, Nunley PD, Bae HW, Kim KD, Ohnmeiss DD. **Prospective, Randomized Comparison of One-level Mobi-C Cervical Total Disc Replacement vs. Anterior Cervical Discectomy and Fusion: Results at 5-year Follow-up.** *International journal of spine surgery* 2016, 10.
56. Hosseini P, Nnadi C, Rehák L, Repko M, Grevitt M, Aydinli U, Carl A, Pawelek J, Crandall D, Akbarnia BA. **Analysis of Segmental Mobility Following a Novel Posterior Apical Short-Segment Correction for Adolescent Idiopathic Scoliosis.** *Spine* 2016, 41(20):E1223-E1229.
57. Isaacs RE, Sembrano JN, Tohmeh AG. **Two-Year Comparative Outcomes of MIS Lateral and MIS Transforaminal Interbody Fusion in the Treatment of Degenerative Spondylolisthesis.** *Spine* 2016; 41(1):S133-S44.
58. Meisel H-J, Jurák L, Antinheimo J, Arregui R, Bruchmann B, Čabraja M, *et al.* **Four-year Results of a Prospective Single-arm Study on 200 Semi-constrained Total Cervical Disc Prostheses: Clinical and Radiographic Outcome.** *Journal of Neurosurgery: Spine* 2016:1-10.
59. Musacchio MJ, Laurysen C, Davis RJ, Bae HW, Peloza JH, Guyer RD, Zigler JE, Ohnmeiss DD, Leary S. **Evaluation of Decompression and Interlaminar Stabilization Compared with Decompression and Fusion for the Treatment of Lumbar Spinal Stenosis: 5-year Follow-up of a Prospective, Randomized, Controlled Trial.** *Int J Spine Surg* 2016; 10.
60. Nunley PD, Kerr EJ, Cavanaugh DA, Utter A, Frank K, Stone M. **Seven-Year Radiographic Adjacent Segment Pathology after Treatment with TDR or ACDF at One or Two Levels.** *The Spine Journal* 2016; 16(10):S283.
61. Parker SL, Grahovac G, Vukas D, Vilendecic M, Ledic D, McGirt MJ, Carragee EJ. **Effect of an Annular Closure Device (Barricaid) on Same-Level Recurrent Disk Herniation and Disk Height Loss After Primary Lumbar Discectomy: Two-year Results of a Multicenter Prospective Cohort Study.** *Clinical spine surgery* 2016, 29(10):454-460.
62. Patwardhan AG, Caradang G, Voronov LI, Havey RM, Paul GA, Laurysen C, Coric D, Dimmig T, Musante D. **Are Collapsed Cervical Discs Amenable to Total Disc Arthroplasty: Analysis of Prospective Clinical Data with 2-Year Follow-Up.** *Spine* 2016; 41(24):1866-75.
63. Pekmezci M, Tang JA, Cheng L, *et al.* **Comparison of Expandable and Fixed Interbody Cages in a Human Cadaver Corpectomy Model: Fatigue Characteristics.** *Clinical Spine Surgery* 2016; 29:387-393.
64. Yücesoy K, Yuksel K, Yuksel M, Kalemci O, Altun I. **Changes in Sagittal Alignment after Cervical Disc Arthroplasty: Results of a Pilot Study.** *J Spine* 2016; 5(1).
65. Yücesoy K, Yüksel KZ, Yüksel M, Kalemci O, Altun i. **Changes in Sagittal Alignment After Cervical Disc Arthroplasty: Results of 24 Month Pilot Study.** *J Nervous System Surgery* 2016, 6(1):1-8.
66. Vanichkachorn J, Peppers T, Bullard D, Stanley SK, Linovitz RJ, Ryaby JT. **A Prospective Clinical and Radiographic 12-month Outcome Study of Patients Undergoing Single-level Anterior Cervical Discectomy and Fusion for Symptomatic Cervical Degenerative Disc Disease Utilizing a Novel Viable Allogeneic, Cancellous, Bone Matrix (Trinity Evolution™) with a Comparison to Historical Controls.** *European Spine Journal* 2016; 25:2233-8
67. Zhao KD, Ben-Abraham EI, Magnuson DJ, Camp JJ, Berglund LJ, An K-N, *et al.* **Effect of Off-Axis Fluoroscopy Imaging on Two-Dimensional Kinematics in the Lumbar Spine: A Dynamic In Vitro Validation Study.** *Journal of Biomechanical Engineering* 2016; 138(5):054502.
68. Zigler JE, Rogers RW, Ohnmeiss DD. **Comparison of 1-Level Versus 2-Level Anterior Cervical Discectomy and Fusion: Clinical and Radiographic Follow-Up at 60 Months.** *Spine* 2016; 41:463-9.
69. Anekstein Y, Floman Y, Smorgick Y, Rand N, Millgram M, Mirovsky Y. **Seven Years Follow-up for Total Lumbar Facet Joint Replacement (TOPS) in the Management of Lumbar Spinal Stenosis and Degenerative Spondylolisthesis.** *European Spine Journal* 2015:1-9.
70. Bae HW, Kim KD, Nunley PD, Jackson RJ, Hisey MS, Davis RJ, Hoffman GA, Gaede SE, Danielson III GO, Peterson DL. **Comparison of Clinical Outcomes of One and Two-level Total Disc Replacement: 4-Year Results from a Prospective, Randomized, Controlled, Multicenter IDE Clinical Trial.** *Spine* 2015; 40:759-766.

71. Bae HW, Laurysen C, Maislin G, Leary S, Musacchio Jr MJ. **Therapeutic Sustainability and Durability of Coflex Interlaminar Stabilization After Decompression for Lumbar Spinal Stenosis: A Four Year Assessment.** *International Journal of Spine Surgery* 2015; 9.
72. Cao F, Liu T, Xu Y, Han H, Dong R, Feng S. **Comparison of Clinical and Radiographic Changes After Bryan Disc Arthroplasty versus ACDF: A 60-Month Follow-Up on 120 Patients.** *World J Neuroscience* 2015; 40-48.
73. Davis RJ, Nunley PD, Kim KD, Hisey MS, Jackson RJ, Bae HW, Hoffman GA, Gaede SE, Danielson III GO, Gordon C. **Two-level Total Disc Replacement with Mobi-C Cervical Artificial Disc Versus Anterior Discectomy and Fusion: A Prospective, Randomized, Controlled Multicenter Clinical Trial with 4-Year Follow-up Results.** *Journal of Neurosurgery: Spine* 2015; 22(1):15-25.
74. Derrick SM, Raxter MH, Hipp JA, Goel P, Chan EF, Love JC, Wiersema JM, Akella NS. **Development of a Computer-Assisted Forensic Radiographic Identification Method Using the Lateral Cervical and Lumbar Spine.** *Journal of Forensic Sciences* 2015; 60(1):5-12.
75. Garcia Jr R, Yue JJ, Blumenthal S, Coric D, Patel VV, Leary SP, et al. **Lumbar Total Disc Replacement for Discogenic Low Back Pain: Two-year Outcomes of the activL Multicenter Randomized Controlled IDE Clinical Trial.** *Spine* 2015; 40(24):1873-81.
76. Gibson JNA, Depreitere B, Pflugmacher R, Schnarke KJ, Fielding LC, Alamin TF, Goffin J. **Decompression and Paraspinous Tension Band: A Novel Treatment Method for Patients with Lumbar Spinal Stenosis and Degenerative Spondylolisthesis.** *The Spine J* 2015; 15(Suppl 3):23S-32S.
77. Hisey MS, Bae HW, Davis R, Gaede S, Hoffman G, Kim K, Nunley PD, Peterson D, Rashbaum RF, Stokes J. **Prospective, Randomized Comparison of Cervical Total Disc Replacement vs. Anterior Cervical Fusion: Results at 48 Months Follow-up.** *J Spinal Disorders & Tech* 2015; 28(4):E237-243.
78. Hipp JA, Guyer RD, Zigler JE, Ohnmeiss DD, Wharton ND. **Development of a Novel Radiographic Measure of Lumbar Instability and Validation Using the Facet Fluid Sign.** *Int J Spine Surg - Biomechanics Special Issue* 2015.
79. Ledic D, Vukas D, Grahovac G, Barth M, Bourma GJ, Vilendecic M. **Effect of Anular Closure on Disk Height Maintenance and Reoperated Recurrent Herniation Following Lumbar Discectomy: Two-Year Data.** *Journal of Neurological Surgery Part A: Central European Neurosurgery* 2015; 76(03):211-8.
80. Patel VV, Whang PG, Haley TR, Bradley WD, Nunley PD, Davis RP, et al. **Superior Interspinous Process Spacer for Intermittent Neurogenic Claudication Secondary to Moderate Lumbar Spinal Stenosis: Two-year Results from a Randomized Controlled FDA-IDE Pivotal Trial.** *Spine* 2015; 40(5):275-82.
81. Phillips FM, Geisler FH, Gilder KM, Reah C, Howell KM, McAfee PC. **Long-term Outcomes of the US FDA IDE Prospective, Randomized Controlled Clinical Trial Comparing PCM Cervical Disc Arthroplasty with Anterior Cervical Discectomy and Fusion.** *Spine* 2015; 40(10):674-83.
82. Reichel LM, Hipp J, Fuentes A, Reitman CA. **Quantitative Analysis Of Cervical Flexion-Extension Radiographs In Rheumatoid Arthritis.** *J Spinal Disorders Tech* 2015; 28:E478-E481.
83. Rhee JM, Chapman JR, Norvell DC, Smith J, Sherry NA, Riew KD. **Radiologic Determination of Post-operative Cervical Fusion: A Systematic Review.** *Spine* 2015; 40:974-992.
84. Rihn JA, Radcliff KE, Hipp JA, Vaccaro AR, Hilibrand AS, Anderson DG, Albert TJ. **Radiographic Variables that May Predict Clinical Outcomes in Cervical Disc Replacement Surgery.** *J Spinal Disord Tech* 2015; 28(3):106-113.
85. Sardar Z, Alexander D, Oxner W, Plessis Sd, Yee A, Wai EK, et al. **Twelve-Month Results of a Multicenter, Blinded, Pilot Study of a Novel Peptide (B2A) in Promoting Lumbar Spine Fusion.** *Journal of Neurosurgery: Spine* 2015; 22(4):358-66.
86. Schätz C, Ritter-Lang K, Gössel L, Dreßler N. **Comparison of Single-Level and Multiple-Level Outcomes of Total Disc Arthroplasty: 24-Month Results.** *International Journal of Spine Surgery* 2015; 9.
87. Staub BN, Holman PJ, Reitman CA, Hipp JA. **Sagittal Plane Lumbar Intervertebral Motion During Seated Flexion-Extension in 658 Asymptomatic, Non-degenerated Levels.** *J Neurosurgery Spine* 2015; 23(6):731-8.
88. Wang T, Fielding LC, Parikh A, Kothari M, Alamin T. **Sacral Spinous Processes: A Morphologic Classification and Biomechanical Characterization of Strength.** *The Spine Journal* 2015; 15(12):2544-51.
89. Weiner BK, Vilendecic M, Ledic D, Eustacchio S, Hipp JA. **Endplate Changes Following Discectomy: Natural History and Associations Between Imaging and Clinical Data.** *Eur Spine J* 2015; 24:2449-2457.

90. Eastlack RK, Garfin SR, Brown CR, Meyer C. **Osteocel® Plus Cellular Allograft in Anterior Cervical Discectomy and Fusion (ACDF). Evaluation of Clinical and Radiographic Outcomes from a Prospective Multi-center Study.** *Spine* 2014; 39(22):E1331-E1337.
91. Gornet MF, Schranck F, Wharton ND, Beall DP, Jones E, Myers ME, Hipp JA. **Optimizing Success with Lumbar Disc Arthroplasty.** *Eur Spine J* 2014; 23:2127-2135.
92. Guyer RD, Pettine K, Roh JS, Dimmig TA, Coric D, McAfee PC, Ohnmeis DO. **Comparison of 2 Lumbar Total Disc Replacements.** *Spine* 2014; 39(12):925-931.
93. Hisey MS, Bae HW, Davis R, Gaede S, Hoffman G, Kim K, Nunley PD, Peterson D, Rashbaum R, Stokes J. **Multi-center, Prospective, Randomized, Controlled Investigational Device Exemption Clinical Trial Comparing Mobi-C Cervical Artificial Disc to Anterior Discectomy and Fusion in the Treatment of Symptomatic Degenerative Disc Disease in the Cervical Spine.** *Int J Spine Surg* 2014; 8(7).
94. Hou Y, Liu Y, Yuan W, Wang X, Chen H, Yang L, Zhang Y. **Cervical Kinematics and Radiological Changes after Discover Artificial Disc Replacement versus Fusion.** *The Spine Journal* 2014; 14(6):867-877.
95. Kersten RF, van Gaalen SM, Arts MP, Roes KC, de Gast A, Corbin TP, Öner FC. **The SNAP trial: a double blind multi-center randomized controlled trial of a silicon nitride versus a PEEK cage in transforaminal lumbar interbody fusion in patients with symptomatic degenerative lumbar disc disorders: study protocol.** *BMC musculoskeletal disorders* 2014, 15(1):57.
96. Suchomel P, Jurak L, Antinheimo J, Pohjola J, Stulik J, Meisel HJ, Cabraja M, Woiciechowsky C, Bruchmann B, Shackelford I, Arregui R, Sola S. **Does Sagittal Position of the CTDR-related Centre of Rotation Influence Functional Outcome?** *Eur Spine J* 2014; 23:1124-1134.
97. Bastian L, Schils F, Tillman J, Fueredi G. **A Randomized Trial Comparing 2 Techniques of Balloon Kyphoplasty and Curette Use for Obtaining Vertebral Body Height Restoration and Angular-Deformity Correction in Vertebral Compression Fractures Due to Osteoporosis.** *Am J of Neuroradiology* 2013; 34(3):666-675.
98. Bouma GJ, Barth M, Ledic D, Vilendecic M. **The High-risk Discectomy Patient: Prevention of Reherniation in Patients with Large Annular Defects Using an Annular Closure Device.** *Eur Spine J* 2013; 22(5):1030-1036.
99. Davis R, Auerbach JD, Bae H, Errico TJ. **Can Low-grade Spondylolisthesis be Effectively Treated by Either coflex Interlaminar Stabilization or Laminectomy and Posterior Spinal Fusion? Two-year Clinical and Radiographic Results from the Randomized, Prospective, Multicenter US Investigational Device Exemption Trial.** *J Neurosurgery Spine* 2013; 19(2):174-184.
100. Davis RJ, Errico TJ, Bae H, Auerbach JD. **Decompression and coflex® Interlaminar Stabilization Compared to Decompression and Instrumented Spinal Fusion for Spinal Stenosis and Low-grade Degenerative Spondylolisthesis. Two-year Results from the Prospective, Randomized, Multicenter Food and Drug Administration Investigational Device Exemption Trial.** *Spine* 2013; 38(18):1529-1539.
101. Davis RJ, Kim KD, Hisey MS, Hoffman GA, Bae HW, Gaede SE, Rashbaum RF, Nunley PD, Peterson DL, Stokes JK. **Cervical total disc replacement with the Mobi-C cervical artificial disc compared with anterior discectomy and fusion for treatment of 2-level symptomatic degenerative disc disease: a prospective, randomized, controlled multicenter clinical trial: clinical article.** *Journal of Neurosurgery: Spine* 2013, 19(5):532-545.
102. Dickinson LD, Phelps J, Summa CD, Vanichkachorn JS, Jeshuran WR, Randall JB, Mimran RI, Mitchell M, Macenski MM, Laurysen C. **Facet-sparing Decompression With a Minimally Invasive Flexible Microblade Shaver: A Prospective Operative Analysis.** *Journal of Spinal Disorders & Techniques* 2013, 26(8):427-436.
103. Koller H, Meier O, Zenner J, Mayer M, Hitzl W. **In Vivo Analysis of Cervical Kinematics after Implantation of a Minimally Constrained Cervical Artificial Disc Replacement.** *Eur Spine J* 2013; 22(4):747-758.
104. Kowalczyk I, Chaudhary N, Duggal N. **Kinematic Analysis Following Implantation of the PRESTIGE LP.** *The International Journal of Spine Surgery* 2013; 7(1):e118-e122.
105. Lador R, Liberman S, Ben-Galim P, Dreiangel N, Reitman CA, Hipp JA. **A Cadaver Study to Compare Vertebral Augmentation with a High-viscosity Cement to Augmentation with Conventional Low-viscosity Cement.** *J Spinal Disord Tech* 2013; 26(2):68-73.
106. Mayer M, Zenner J, Auffarth A, Blocher M, Figl M, Resch H, Koller H. **Hidden Discoligamentous Instability in Cervical Spine Injuries: Can Quantitative Motion Analysis Improve Detection?** *Eur Spine J* 2013; 22(10):2219-27.

107. Parker SL, Grahovac G, Vukas D, Vilendecic M, Ledic D, McGirt MJ, Carragee EJ. **Effect of an Annular Closure Device (Barricaid) on Same Level Recurrent Disc Herniation and Disc Height Loss After Primary Discectomy: Two-Year Results of a Multi-Center Prospective Cohort Study.** *J Spine Disord Tech* 2013.
108. Phillips FM, Lee JY, Geisler FH, Cappuccino A, Chaput CD, DeVine JG, Reah C, Gilder KM, Howell KM, McAfee PC. **A Prospective, Randomized, Controlled Clinical Investigation Comparing PCM Cervical Disc Arthroplasty with Anterior Cervical Discectomy and Fusion: 2-Year Results from the US FDA IDE Clinical Trial.** *Spine* 2013; 38(15):E907-E918.
109. Ritter Lang K, Dreßler N, Schatz C, Gossel L. **Treatment of Lumbar Degenerative Disc Disease Using a Novel, Compressible Core Prosthesis: 24-Month Results.** *Journal of Spine* 2013.
110. Ryu WHA, Kowalczyk I, Duggal N. **Long-term Kinematic Analysis of Cervical Spine After Single-level Implantation of Bryan Cervical Disc Prosthesis.** *The Spine Journal* 2013; 13(6):628-634.
111. Trummer M, Eustacchio S, Barth M, Klassen PD, Stein S. **Protecting Facet Joints Post-lumbar Discectomy: Barricaid Annular Closure Device Reduces Risk of Facet Degeneration.** *Clinical Neurology and Neurosurgery* 2013; 1440-1445.
112. Vaccaro A, Beutler W, Peppelman W, Marzluff J, Highsmith J, Mugglin A, DeMuth G, Gudipally M, Baker K. **Clinical Outcomes with Selectively Constrained SECURE-C Cervical Disc Arthroplasty.** *Spine* 2013; 38(26):2227-2239.
113. Yue J, Zhang K, Bai HX, Du J, Cammisa F, Abjornson C, Mo F. **A Comparison of Patients Who Have Undergone 1-Level Versus 2-Level ProDisc Arthroplasty: A Prospective Study With Minimum of 5-Year Follow-up.** *Spine* 2013; 38(14):1194-1198.
114. Zigler JE, Delamarter R, Murrey D, Spivak J, Janssen M. **ProDisc-C and Anterior Cervical Discectomy and Fusion as Surgical Treatment for Single-Level Cervical Symptomatic Degenerative Disc Disease. Five-Year Results of a Food and Drug Administration Study.** *Spine* 2013; 38(3):203-209.
115. Anderson PA, Sasso RC, Hipp J, Norvell DC, Raich A, Hashimoto R. **Kinematics of the cervical adjacent segments after disc arthroplasty compared with anterior discectomy and fusion: a systematic review and meta-analysis.** *Spine* 2012; 37(22 Suppl):S85-S95.
116. Laurysen C, Berven S, Mimran R, Summa C, Sheinberg M, Miller L, Block J. **Facet-sparing Lumbar Decompression with a Minimally Invasive Flexible MicroBlade Shaver® versus Traditional Decompression: Quantitative Radiographic Assessment.** *Clinical Interventions in Aging* 2012; 7:257-266.
117. Laurysen CL, Coric D, Dimmig T, Musante D, Ohnmeiss DD, Stubbs HA. **Cervical Total Disc Replacement Using a Novel Compressible Prosthesis: Results from a Prospective Food and Drug Administration-regulated Feasibility Study with 24-Month Follow-up.** *Int J Spine Surg* 2012:e1-e7.
118. Patwardhan AG, Havey RM, Wharton ND, Tsitsopoulos PP, Newman P, Carandang G, et al. **Asymmetric Motion Distribution Between Components of a Mobile-Core Lumbar Disc Prosthesis: An Explanation of Unequal Wear Distribution in Explanted CHARITÉ Polyethylene Cores.** *J Bone Joint Surg Am* 2012; 94:846-854.
119. Patwardhan AG, Tzermiadianos MN, Tsitsopoulos PP, Voronov LI, Renner SM, Reo ML, Carandang G, Ritter-Lang K, Havey RM. **Primary and Coupled Motions After Cervical Total Disc Replacement Using a Compressible Six-Degree-of-Freedom Prosthesis.** *Eur Spine J* 2012; (Suppl. 5):S618-S629.
120. Selby MD, Clark SR, Hall DJ, Freeman BJC. **Radiologic Assessment of Spinal Fusion.** *J Am Acad Orthop Surg* 2012; 20:694-703.
121. Tsitsopoulos PP, Wojewnik B, Voronov LI, Havey RM, Renner SM, Zelenakova J, McIntosh B, Carandang G, Abjornson C, Patwardhan AG. **Effect of Prosthesis Endplate Lordosis Angles on L5-S1 Kinematics After Disc Arthroplasty.** *European Spine Journal* 2012; 21(Suppl. 5):S585-591.
122. Zigler JE. **Five-Year Results of the ProDisc-L Multicenter, Prospective, Randomized, Controlled Trial Comparing ProDisc-L with Circumferential Spinal Fusion for Single-Level Disabling Degenerative Disk Disease.** *Seminars in Spine Surgery* 2012; 24:25-31.
123. Zigler JE, Delamarter RB. **Five-year Results of the Prospective, Randomized, Multicenter, Food and Drug Administration Investigational Device Exemption Study of the ProDisc-L Total Disc Replacement versus Circumferential Arthrodesis for the Treatment of Single-level Degenerative Disc Disease.** *Journal of Neurosurgery Spine* 2012; 17(6):493-501.
124. Zigler JE, Jamieson G, Delamarter RB. **Five-Year Adjacent-level Degenerative Changes in Patients with Single-level Disease Treated Using Lumbar Total Disc Replacement with ProDisc-L versus Circumferential Fusion.** *J Neurosurg Spine* 2012; 17:504-511.

125. Auerbach JD, Anakwenze OA, Milby AH, Lonner BS, Balderston RA. **Segmental Contribution Towards Total Cervical Range of Motion: A Comparison of Cervical Disc Arthroplasty to Fusion.** *Spine* 2011; 36(25):E1593-1599.
126. Coric D, Nunley PD, Guyer RD, Musante D, Carmody CN, Gordon CR, Laurysen C, Ohnmeiss DD, Boltes MO. **Prospective, Randomized, Multicenter Study of Cervical Arthroplasty: 269 Patients from the Kineflex|C Artificial Disc Investigational Device Exemption Study with a Minimum 2-year Follow-up.** *J Neurosurg: Spine* 2011; 15(4):348-358.
127. Delamarter R, Zigler JE, Balderston RA, Cammisa FP, Goldstein JA, Spivak JM. **Prospective, Randomized, Multicenter Food and Drug Administration Investigational Device Exemption Study of the ProDisc-L Total Disc Replacement Compared with Circumferential Arthrodesis for the Treatment of Two-level Lumbar Degenerative Disc Disease: Results at Twenty-Four Months.** *J Bone Joint Surg Am* 2011; 93:705-15.
128. Du J, Li M, Liu H, Meng H, He Q, Luo Z. **Early Follow-up Outcomes After Treatment of Degenerative Disc Disease with the Discover Cervical Disc Prosthesis.** *The Spine Journal* 2011; 11(4):281-289.
129. Duggal N, Bertagnoli R, Rabin D, Wharton N, Kowalczyk I. **ProDisc-C. An in Vivo Kinematic Study.** *J Spinal Disord Tech* 2011; 24:334-339.
130. Ghiselli G, Wharton N, Wong D, Jatana S. **Prospective Analysis of Imaging Prediction of Pseudoarthrosis after Anterior Cervical Discectomy and Fusion: Computed Tomography vs. Flexion-Extension Motion Analysis with Intraoperative Correlation.** *Spine* 2011; 36(6):463-468.
131. Ho JM, Ben-Galim P, Weiner BK, Karbach LE, Moron FE, Reitman CA, Heggeness MH, Hipp JA. **Towards the Establishment of Optimal CT Parameters for the Assessment of Lumbar Spinal Fusion.** *The Spine Journal* 2011; 11(7):636-640.
132. Jackson ER, Lador R, Ben-Galim PJ, Reitman CA, Hipp JA. **Reference data for Interpreting Widening Between Spinous Processes in the Lumbar Spine.** *The Spine Journal* 2011; 11:2336-339.
133. Kelly MP, Mok JM, Frisch RF, Tay BK. **Adjacent Segment Motion After Anterior Cervical Discectomy and Fusion versus ProDisc-C Cervical Total Disk Arthroplasty.** *Spine* 2011; 36(15):1171-1179.
134. Kowalczyk I, Lazaro BCR, Fink M, Rabin D, Duggal N. **Analysis of in Vivo Kinematics of 3 Different Cervical Devices: Bryan Disc, ProDisc-C, and Prestige LP Disc.** *Journal of Neurosurgery: Spine* 2011:1-6.
135. Lador R, Ben-Galim PJ, Hipp JA. **Motion Within the Unstable Cervical Spine During Patient Maneuvering: The Neck Pivot-shift Phenomenon.** *The Journal of Trauma* 2011; 70(1):247-250.
136. Olabisi RM, Lazard Z, Heggeness MH, Moran KM, Hipp JA, Dewan AK, Davis AR, West JL, Olmsted-Davis EA. **An Injectable Method for Noninvasive Spine Fusion.** *The Spine Journal* 2011; 11(6):545-556.
137. Park DK, Lin EL, Phillips FM. **Index and Adjacent Level Kinematics After Cervical Disc Replacement and Anterior Fusion: In Vivo Quantitative Radiographic Analysis.** *Spine* 2011; 36:721-730.
138. Pearson AM, Spratt KF, Genuario J, McGough W, Kosman K, Lurie J, Sengupta DK. **Precision of Lumbar Intervertebral Measurements: Does a Computer-Assisted Technique Improve Reliability?** *Spine* 2011; 36(7):572-580.
139. Sasso RC, Metcalf NH, Hipp JA, Wharton ND, Anderson PA. **Sagittal Alignment After Bryan Cervical Arthroplasty.** *Spine* 2011; 36(13):991-6.
140. Ben-Galim P, Driangel N, Mattox KL, Reitman CA, Kalantar BS, Hipp JA. **Extrication Collars Can Result in Abnormal Separation Between Vertebrae in the Presence of a Dissociative Injury.** *The Journal of Trauma* 2010; 69(2):447-50.
141. Dewan AK, Dewan RA, Calderon N, Fuentes A, Lazard Z, Davis AR, Heggeness M, Hipp JA, *et al.* **Assessment Mechanical Integrity of Spinal Fusion by In Situ Endochondral Osteoinduction in the Murine Model.** *J Orthop Surg Res* 2010; 5:58.
142. Driangel N, Ben-Galim P, Lador R, Hipp JA. **Occipitocervical Dissociative Injuries: Common in Blunt Trauma Fatalities and Better Detected with Objective Computed Tomography-based Measurements.** *The Spine Journal* 2010; 10:704-707.
143. Eubanks AC, Hipp JA, Lador R, Ben-Galim PJ, Reitman CA. **Reference Data for Assessing Widening Between Spinous Processes in the Cervical Spine and the Responsiveness of These Measures to Detecting Abnormalities.** *Spine J.* 2010; 10(3):230-7.
144. Kalantar BS, Hipp JA, Reitman CA, Driangel N, Ben-Galim P. **Diagnosis of unstable cervical spine injuries: Laboratory support for the use of axial traction to diagnose cervical spine instability.** *The Journal of Trauma* 2010; 69(4):889-895.
145. Lador R, Driangel N, Ben-Galim PJ, Hipp JA. **A Pictorial Classification Atlas of Cement Extravasation with Vertebral Augmentation.** *The Spine Journal* 2010; 10(12):1118-1127.



146. Lazaro BC, Yucesoy K, Yuksel KZ, Kowalczyk I, Rabin D, Fink M, Duggal N. **Effect of Arthroplasty Design on Cervical Spine Kinematics: Analysis of the Bryan Disc, ProDisc-C, and Synergy Disc.** *Neurosurg Focus* 2010; 28(6):E6.
147. Park JJ, Quirno M, Cunningham MR, Schwarzkopf R, Bendo JA, Spivak JM, Goldstein JA. **Analysis of Segmental Cervical Spine Vertebral Motion After Prodisc-C Cervical Disc Replacement.** *Spine* 2010; 35(8):E285-9.
148. Pimenta L, Springmuller R, Lee CK, Oliveira L, Roth SE, Ogilvie WF. **Clinical Performance of an Elastomeric Lumbar Disc Replacement: Minimum 12 Months Follow-up.** *SAS Journal* 2010; 4:14-25.
149. Pneumaticos SG, Chatziioannou AN, Hipp JA, Chatziioannou S N. **Prediction of Successful Discectomy using MRI Quantitation of Dural Sac and Herniated Disc Dimensions.** *Int J Clin Practice* 2010; 64(1):13-18.
150. Powell JW, Sasso RC, Metcalf NH, Anderson PA, Hipp JA. **Quality of Spinal Motion With Cervical Disk Arthroplasty: Computer-aided Radiographic Analysis.** *J Spinal Disord Tech* 2010; 23(2):89-95.
151. Radcliff KE, Ben-Galim P, Dreiangel N, Martin SD, Reitman CA, Lin JN, Hipp JA. **Comprehensive CT Assessment of the Upper-cervical Anatomy: What is Normal?** *The Spine Journal* 2010; 10:219-229.
152. Reyes-Sanchez A, Miramontes V, Olivarez LMR, Acuirre AA, Quiroz AO, Zarate-Kalfopulos B. **Initial Clinical Experience with a Next-generation Artificial Disc for the Treatment of Symptomatic Degenerative Cervical Radiculopathy.** *SAS Journal* 2010; 4:9-15.
153. Trautwein FT, Lowery GL, Wharton ND, Hipp JA, Chomiak RJ. **Determination of the In Vivo Posterior Loading Environment of the Coflex Interlaminar-interspinous Implant.** *Spine J* 2010; 10(3):244-51.
154. Anakwenze OA, Auerbach JD, Milby AH, Lonner BS, Balderston RA. **Sagittal Cervical Alignment after Cervical Disc Arthroplasty and Anterior Cervical Discectomy and Fusion: Results of a Prospective, Randomized, Controlled Trial.** *Spine* 2009; 34(19):2001-7.
155. Auerbach JD, Jones KJ, Milby AH, Anakwenze OA, Balderston RA. **Segmental Contribution Toward Total Lumbar Range of Motion in Disc Replacement and Fusions: A Comparison of Operative and Adjacent Levels.** *Spine* 2009; 34(23):2510-7.
156. Ekman P, Moller H, Shalabi, A, *et al.* **A Prospective Randomised Study on the Long-term Effect of Lumbar Fusion on Adjacent Disc Degeneration.** *Eur Spine J* 2009; 18:1175-86.
157. Guyer RD, McAfee PC, Banco RJ, Bitan FD, Cappuccino A, Geiseler FH, Hochschuler SH, Holt RT, Jemis LG, Majd ME, Regan JJ, Tromanhauser SG, Wong DC, Blumenthal SL. **Prospective, Randomized, Multicenter Food and Drug Administration Investigational Device Exemption Study of Lumbar Total Disc Replacement with the CHARITE<sup>®</sup> Artificial Disc versus Lumbar Fusion: Five-year Follow-up.** *Spine J* 2009; 9(5):374-86.
158. Murrey D, Janssen M, Delemarter R, Goldstein J, Zigler J, Tay B, Darden B. **Results of the Prospective, Randomized, Controlled Multicenter Food and Drug Administration Investigational Device Exemption Study of the ProDisc-C Total Disc Replacement versus Anterior Discectomy and Fusion for the Treatment of 1-Level Symptomatic Cervical Disc Disease.** *Spine J* 2009; 9(4):275-86.
159. Park SA, Ordway NR, Fayyazi AH, Fredrickson BE, Yuan HA. **Comparison of Cobb Technique, Quantitative Motion Analysis, and Radiostereometric Analysis in Measurement of Segmental Range of Motions After Lumbar Total Disc Arthroplasty.** *J Spinal Disord Tech* 2009; 22:602-609.
160. Peng C, Quirno M, Bendo JA, Spivak JM, Goldstein JA. **Effect of Intervertebral Disc Height on Postoperative Motion and Clinical Outcomes After Prodisc-C Cervical Disc Replacement.** *Spine J* 2009; 9(7):551-5.
161. Phillips FM, Allen RT, Regan JJ, Albert TJ, Cappuccino A, Devine JG, Ahrens JE, Hipp JA, McAfee PC. **Cervical Disc Replacement in Patients with and without Previous Adjacent Level Fusion Surgery: A Prospective Study.** *Spine* 2009; 34(6):556-65.
162. Rabin D, Bertagnoli R, Wharton N, Pickett GE, Duggal N. **Sagittal Balance Influences Range of Motion: An In Vivo Study with the ProDisc-C.** *Spine J* 2009; 9(2):128-33.
163. Acosta FL, Christensen FB, Coe JD, Jahng T, Kitchel SH, Meisel HJ, Schnoring M, Wingo CH, Ames CP. **Early Clinical & Radiographic Results of NFix II Posterior Dynamic Stabilization System.** *SAS Journal* 2008; 2(2):69-75.
164. Auerbach J, Namdari S, Milby A, *et al.* **The Parallax Effect in the Evaluation of Range of Motion in Lumbar Total Disc Replacement.** *The SAS Journal* 2008.
165. Fassett D, Apfelbaum R, Hipp J. **Comparison of Fusion Assessment Technique: Computer-Assisted Versus Manual Measurement.** *J Neurosurgery: Spine* 2008; 8:544-547.

166. Foley KT, Mroz TE, Arnold PM, *et al.* **Randomized, Prospective, and Controlled Clinical Trial of Pulsed Electromagnetic Field Stimulation for Cervical Fusion.** *The Spine Journal* 2008; 4:36-442.
167. Hipp J and Wharton N. **Quantitative Motion Analysis (QMA) of Motion Preserving and Fusion Technologies for the Spine.** In: *Motion Preservation Surgery of the Spine: Advanced Techniques and Controversies.* eds Yue J, Bertagnoli R, McAfee P, and An H. Elsevier, New York, 2008.
168. Hwang H, Hipp JA, Ben-Galim P, Reitman CA. **Threshold Cervical Range-of-Motion Necessary to Detect Abnormal Intervertebral Motion in Cervical Spine Radiographs.** *Spine* 2008; 33:E261-E267.
169. Patwardhan AG, Voronov LI, Renner SM, Carandang G, Havey RM. **Effect of Compressive Preload Magnitude on the Quality and Quantity of Motion of the Lumbar Spine after Total Disc Arthroplasty Using a Compressible Disc Prosthesis.** *The Spine Journal* 2008; 8:1S-19IS doi:10.1016/j.spinee.2008.06.126.
170. Sasso RC, Best NM. **Cervical Kinematics After Fusion and Bryan Disc Arthroplasty.** *J Spinal Disord Tech* 2008; 21:1-19.
171. Sasso RC, Best NM, Metcalf NH, Anderson PA. **Motion analysis of bryan cervical disc arthroplasty versus anterior discectomy and fusion: results from a prospective, randomized, multicenter, clinical trial.** *Journal of Spinal Disorders & Techniques* 2008, 21(6):393-399.
172. Yaszay B, Bendo J, Goldstein JA, Quirno M, Spivak JM, Errico TJJ. **Effect of Intervertebral Disk Height on Post-operative Motion Following Prodisc™ Lumbar Disk Replacement.** *Spine* 2008; 33:508-512; discussion 513.
173. Auerbach JD, Tally WC, Balderston RA. **Radiographic Evaluation in Lumbar Total Disc Replacement: Assessment of Potential Candidacy and Range of Motion.** *Seminars in Spine Surgery* 2007; 19:87-97.
174. Goldberg G, Albert T, Vaccaro A, Hilibrand A, Anderson G, Wharton N. **Short-Term Comparison of Cervical Fusion with Static and Dynamic Plating using Computerized Quantitative Motion Analysis.** *Spine* 2007; 32: E371-E375.
175. Mourning D, Reitman CA, Heggeness M, Esses S, Hipp JA. **Initial Intervertebral Stability After Anterior Cervical Discectomy and Fusion with Plating.** *Spine* 2007; 7:643-646.
176. Rabin D, Pickett GE, Bisnaire L, Duggal N. **The Kinematics of Anterior Cervical Discectomy and Fusion versus Artificial Cervical Disc: A Pilot Study.** *Neurosurgery* 2007; 61(3 Suppl):100-5.
177. Sasso RC, Smucker JD, Hacker RJ, Heller JG. **Clinical Outcomes of BRYAN Cervical Disc Arthroplasty: A Prospective, Randomized, Controlled, Multicenter Trial with 24-month Follow-up.** *J Spinal Disord Tech* 2007; 20:481-491.
178. Schneider AM, Hipp JA, Nguyen L, Reitman CA. **Reduction in Head and Intervertebral Motion Provided by Seven Contemporary Cervical Orthoses in 45 Individuals.** *Spine* 2007; 32:E1-E6.
179. Sears R, Duggal N, Sekhon L, Williamson O. **Segmental Malalignment with the Bryan Cervical Disc Prosthesis – Contributing Factors.** *J Spinal Disord Tech* 2007; 20(2).
180. Sears R, Sekhon L, Duggal N, Williamson O. **Segmental Malalignment With the Bryan Cervical Disc Prosthesis – Does it Occur?** *J Spinal Disord Tech* 2007; 20:1-6.
181. Subramanian N, Reitman CA, Nguyen L, Hipp JA. **Radiographic Assessment and Quantitative Motion Analysis of the Cervical Spine After Serial Sectioning of the Anterior Ligamentous Structures.** *Spine* 2007; 32:518-526.
182. Taylor M, Hipp JA, Gertzbein SD, Gopinath S, Reitman CA. **Observer Agreement in Assessing Flexion-Extension X-Rays of the Cervical Spine, with and without the Use of Quantitative Measurements of Intervertebral Motion.** *Spine J* 2007; 7:654-658.
183. Welch WC, Gerzten PC, Cheng BC, Maxwell JH. **Dynesys Spinal Instrumentation System.** In: *Spinal Reconstruction: Clinical Examples of Applied Basic Science, Biomechanics and Engineering.* eds Lewandrowski KU, Yaszemski MJ, Kalfas IH, Park P, McLain RF, Trantolo DJ. New York, NY: Taylor & Francis Group (Informa Healthcare) 2007.
184. Sears WR, McCombe PF, Sasso RC. **Kinematics of Cervical and Lumbar Total Disc Replacement.** *Seminars in Spine Surgery* 2006; 18(2):117-129.
185. Brown T, Reitman CA, Nguyen L, Hipp JA. **Intervertebral Motion after Incremental Damage to the Posterior Structures of the Cervical Spine.** *Spine* 2005; 30:E503-E508.
186. Hipp JA, Reitman CA, Wharton N. **Defining Pseudoarthrosis in the Cervical Spine with Differing Motion Thresholds.** *Spine* 2005; 30:209-210.

187. Pickett G, Rouleau J, Duggal N. **Kinematic Analysis of the Cervical Spine Following Implantation of an Artificial Cervical Disc.** *Spine* 2005; 30:1949-1954.
188. Sekhon LH, Sears W, Duggal N. **Cervical Arthroplasty After Previous Surgery: Results of Treating 24 Discs in 15 Patients.** *Neurosurg Spine* 2005; 3(5):335-41.
189. Zhao KD, Yang C, Zhao C, Stans AA, An K-N. **Assessment of Noninvasive Intervertebral Motion Measurements in the Lumbar Spine.** *J Biomechanics* 2005; 38:1943-1946.
190. Duggal N, Pickett G, Mitsis D, Keller J. **Early Clinical and Biomechanical Results Following Cervical Arthroplasty.** *Neurosurgical Focus* 2004; 17:62-68.
191. Pickett G, Mitsis D, Sekhon L, Sears W, Duggal N. **Effects of a Cervical Disc Prosthesis on Segmental and Cervical Spine Alignment.** *Neurosurgical Focus* 2004; 17:30-35.
192. Reitman CA, Hipp JA, Nguyen L, Esses SI. **Changes in Segmental Intervertebral Motion Adjacent to Cervical Arthrodesis. A Prospective Study.** *Spine* 2004; 29:E221-E226.
193. Reitman CA, Mauro KM, Nguyen L, Ziegler JM, Hipp JA. **Intervertebral Motion Between Flexion and Extension in Asymptomatic Individuals.** *Spine* 2004; 29:2832-43.

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