

November 2013

CURRICULUM VITAE

Frank M. Phillips, M.D.

Rush University Medical Center
Midwest Orthopaedics at Rush
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PERSONAL

Date of Birth: August 10, 1960
Citizenship: United States of America

EDUCATION

Spine Fellowship, Case Western Reserve University School of Medicine (Henry Bohlman, MD), 1994-1995
Orthopaedic Residency, The University of Chicago Medical Center, 1989-1994
Orthopaedic Research Fellowship, The University of Chicago Medical Center, 1988-1989
Senior House Officer Orthopaedic Surgery, University of Witwatersrand, Johannesburg, South Africa, 1985-1987
Internship General Surgery/Internal Medicine, University of Witwatersrand, Johannesburg, South Africa, 1984
Medical School, University of Witwatersrand, Johannesburg, South Africa, MBChB 1978-1983

CURRENT POSITION

Professor of Orthopaedic Surgery, Rush University Medical Center
Co-Director Spine Fellowship, Rush University Medical Center
Head, Section of Minimally Invasive Spine Surgery, Rush University Medical Center

PREVIOUS POSITIONS

Medical Director, Spine Center: The University of Chicago
Spine Fellowship Director, The University of Chicago
Associate Professor of Surgery, The University of Chicago
Assistant Professor of Surgery, The University of Chicago

LICENSURE AND CERTIFICATIONS

Permanent Illinois #036-084396
Permanent Ohio #66854
American Board of Orthopaedic Surgery (Certified 1997, Recertified 2007)

HONORS AND AWARDS

Charles Herndon Residency Research Award of Orthopaedic Research and Education Foundation (1992)
American Orthopaedic Association - Zimmer Residents Travel Award Winner (1994)
Effects of bFGF, TGF- β , IGF-I, and insulin on osteoarthritic human articular cartilage explants

Best Teacher Award, Section of Orthopaedics, The University of Chicago Medical Center (1998)

Outstanding poster Award: North American Spine Society, Annual Meeting, October 2000, New Orleans

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Intradiscal electrothermal annuloplasty to treat discogenic low back pain: Preliminary results of a multi-center prospective cohort study.

Outstanding poster Award: North American Spine Society, Annual Meeting, October 2000, New Orleans
Early outcomes of the first 1471 consecutive kyphoplasty procedures in the United States for fixation of painful osteopenic vertebral body compression fractures.

Best Resident Paper: Annual AOA Conference, 2002
Adenovirus mediated transfer of Sox9 to human degenerative intervertebral disc chondrocytes. (as mentor)

Best Multispeciality Scientific paper. Society of laparoendoscopic surgeons, 14th International Congress, San Diego CA 2005
L5-S1 Laparoscopic Anterior Interbody Fusion

Best Research Paper: Spine Arthroplasty Society Annual Meeting. Berlin. 2007
Initial outcomes following PCM arthroplasty for the treatment of symptomatic cervical spondylosis: Results of a prospective, randomized, multi-center study.

Best Poster Award: Spine Arthroplasty Society 8th Annual Meeting, Miami. May, 2008
Lower Incidence of Dysphagia with Cervical Arthroplasty compared to ACDF in a Prospective Randomized Clinical Trial.

Best Paper: North American Spine Society Annual Meeting. Chicago, 2011
Preclinical study of human allogenic amniotic membrane as a barrier to epidural fibrosis in the early wound of a post laminectomy rat model.

Best Paper: North American Spine Society Annual Meeting. Chicago, 2011
Why don't annular defects heal? Does interposed nucleus pulposus prevent healing? An in vivo study.

Whitecloud Best Paper Award Nominee: International Meeting on Advanced Spine Techniques (IMAST) 20th Annual Meeting. Vancouver, Canada. July 2013
Phillips FM, Gilder K, Howell KM, Geisler FH, Chaput C, Reah CJ, DeVine JG, McAfee PC. A Prospective, Randomized Clinical Investigation of the PCM Cervical Disc: Five year results from the US IDE study.

Best Paper; Society for Minimally Invasive Spine Surgery Annual Meeting. Las Vegas November 2013
Singh K, Nandyala SV, Marquez-Lara A, Fineberg SJ, Oglesby M, Pelton MA, Andersson G, Phillips FM. A perioperative cost analysis comparing single-level minimally invasive and open transforaminal lumbar interbody fusion.

Selected to *Best Doctors in America* 2003-2013

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Selected Castle Connolly 2003-2013 *Chicago Metro Area Top Doctors*
Orthopaedics This week: Top 28 Spine Surgeons in the United States (selected by spine surgeon peers)
20012; 2013

MEMBERSHIPS, REVIEW SECTIONS, EDITORSHIP

American Academy of Orthopaedic Surgeons
North American Spine Society
Orthopaedic Research Society
International Society for the Study of the Lumbar Spine
Cervical Spine Research Society
The Illinois Orthopaedic Society
Mid-America Orthopaedic Association
American Orthopaedic Association (AOA) – elected 2002
International Society for Advanced Spinal Surgery
Society for Minimally Invasive Spine Surgery

Weiss Memorial Hospital

Quality Resource Management Committee (1995-2001)
Director, Orthopaedic Quality Assurance Committee (1995-2001)
Treasurer, Medical Staff Executive Committee (1999-2001)
Medical Director Spine Center (2001-2003)

University Of Chicago

Institutional Review Board (1997-2000)
Director Spine Fellowship Program (2000-2003)

Rush University Medical Center

Operating Room Committee (2006-2010)
Conflict of Interest in Research Committee (2008-2010)

Midwest Orthopaedic Network

Clinical Integration Committee (2005- present)
Board of Directors (2006 – present)

Spine Technology and Educational Group [501(c)(3)]

Board of Directors (2007 – present)

Spine Value Council [501(c)(3)]

Board of Directors (2009 – present)

Research Project Management Committee, *North American Spine Society* (2000-2003)
Industry Relations Committee, *International Society for Advanced Spinal Surgery*
(2006-2009)

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Program Committee, Poster Committee Chair, *International Society for Advanced Spinal Surgery Annual Meeting* (2007)

Scientific Program Committee *Cervical Spine Research Society* (2007-2010)

Education Committee, *International Society for Advanced Spinal Surgery* (2007-2009)

President, *Society of Minimally Invasive Spine Surgery (SMISS)* (2007-2008)

Board of Directors, *Society of Minimally Invasive Spine Surgery (SMISS)* (2006-present)

Spine Biologics Research Section Board *North American Spine Society* (2007-2009)

Cervical Spine Research Society: Awards Committee (2013-2016)

Education Committee Chair, *International Society for Advanced Spinal Surgery* (2009-2010)

Overall Program Chair, *International Society for Advanced Spinal Surgery Annual Meeting*, London, 2009

Overall Program Chair, *Cervical Spine Research Society*, Salt Lake City, 2009

Instructional Course Committee Chair, *International Society for Study of Lumbar Spine (ISSLS) 2010*

Federation of Spine Associations (FOSA) Board 2009/2010

Advocacy Committee Chair, *International Society for Advanced Spinal Surgery* (2011-)

Central US Representative: *International Society for Study of Lumbar Spine* (2013-)

North American Chair, *Society of Minimally Invasive Spine Surgery (SMISS)* (2013-15)

Senior Editor: *Advances in Osteoporotic Fracture Management*

Editorial Board: *Journal of Spinal Disorders and Techniques*

Reviewer: *Spine*

Reviewer: *Clinical Orthopaedics and Related Research*

Consultant Reviewer: *Journal of the American Academy of Orthopaedic Surgeons*

Deputy Editor: *Spine Arthroplasty Journal*

PEER REVIEWED PUBLICATIONS

1. Cohen I, Mitchell D, Seider R, Kahn A, Phillips FM. The effects of water deficit on body temperature during rugby. *S Afr Med J*, 60:11-14, 1981
2. Phillips FM, Pottenger LA: Acute septic arthritis in chronic osteonecrosis of the hip. *J Rheumatol*, 15:1713-1716, 1988
3. Phillips FM, Pottenger LA: *In vitro* reconstitution of the cartilage matrix granule network. *Anat. Rec*, 225:26-34, 1989
4. Phillips FM, Pottenger LA, Hay RV: *In situ* cross-linking of cartilage proteoglycans. *J Orthop Res*, 8:189-198, 1990
5. Pottenger LA, Phillips FM, Draganich LF: The effect of marginal osteophytes on reduction of varus-valgus instability of osteoarthritic knees. *Arthritis and Rheum* 33:853-858, 1990
6. Kahn A, Pottenger LA, Phillips FM, Viola, BA: Evidence for proteoglycan-proteoglycan interactions within cartilage aggregates. *J Orthop Res*, 9:777-787, 1991

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7. Phillips FM, Pottenger LA, Finn HA, VanderMolen, J: Cementless total hip arthroplasty in patients with steroid-induced avascular necrosis of the hip. A 62 month follow-up study. *Clin Orthop Rel Res*, 303:147-154, 1994
8. Posever J, Phillips FM, Pottenger LA: Effects of bFGF, TGF- β , IGF-I, and insulin on osteoarthritic human articular cartilage explants. *J Orthop Res* 13:832-837, 1995
9. Pokharna HK, Phillips FM: Changes in pyridinoline and pentosidine in human lumbar intervertebral discs with aging. *Arth Rheum* 39:1460, 1996
10. Phillips FM, Carlson G, Emery SE, Bohlman HH: Anterior cervical pseudarthrosis: Natural history and treatment. *Spine* 22:1585-1589, 1997
11. Wetzel FT, Phillips FM, Bernard TN, Aprill CN, LaRocca SH: Extradural sensory rhizotomy in the management of chronic lumbar radiculopathy: A minimum two year follow-up study. *Spine* 22(19): 2283-2292, 1997
12. Pokharna HK, Phillips FM: Collagen crosslinks in human lumbar intervertebral disc aging. *Spine* 23(15): 1654-1658, 1998
13. Wetzel FT, Tansey LP, Phillips FM, Sinclair DM: A critical appraisal of pain associated with iatrogenic adult spinal deformity and treatment by spinal cord stimulation. *Neuromodulation*, 2(1): 15-22, 1999
14. Phillips FM, Phillips CS, Wetzel FT, Gelinac C: Occipito-cervical neutral position: Possible surgical implications. *Spine* 24(8):775-778, 1999.
15. Wetzel FT, Brustein M, Phillips FM, Trott S: Hardware failure in unconstrained lumbar pedicle screw system: A two-year follow-up study. *Spine* 24(11):1138-1143, 1999.
16. Vraney RT, Phillips FM: Peridiscal arterial anatomy of the lumbar spine: An endoscopic perspective. *Spine* 24(21):2183-2187, 1999
17. Wetzel FT, Hassenbusch S, Willis KD, Phillips FM: Failed Back Surgery. *Biomechanics* 6(11):51-62, 1999.
18. Phillips FM: Current surgical management of metastatic spinal disease. *Oncology* 14(7):1029-1030, 2000
19. Wetzel FT, Phillips FM: Management of Metastatic Disease of the Spine. *Orthop. Clin. N. America* 31(4):32-43, 2000
20. Phillips FM, Carlson G, Bohlman HH, Hughes S: The results of surgery for spinal stenosis adjacent to a previous lumbar fusion. *J Spinal Disorder's* 13(5):432-437, 2000.
21. Wetzel FT, Andersson GB, Lee C, Yuan H, Rashbaum R, Pelosa J, Phillips FM. Intradiscal Electrothermal Therapy (IDET) to treat discogenic low back pain: Preliminary results of a multi-center prospective trial. *Pain Med* 1(2);201-202, 2000
22. Wetzel F, McCracken L, Robbins RA, Lahey DM, Carnegie M, Phillips FM: Temporal stability of the MMPI in patients undergoing lumbar fusion: A poor predictor of surgical outcome. *American J Orthopaedic Surgery* 30(6):469-474, 2001
23. Phillips FM, Paul R, Lieberman I: Kyphoplasty for the treatment of osteoporotic and osteolytic vertebral compression fractures. *Adv Osteopor Fracture Management* 1(1):7-11, 2001
24. Phillips FM, Cunningham B. Inter-transverse lumbar interbody fusion (ILIF). A new technique. *Spine*, 27(2):37-41, 2002
25. Wetzel FT, McNally T, Phillips FM: Lumbar Discography. *Seminars in Spine Surgery*, 13(4):268-274, 2002.

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26. Phillips FM, Reuben J, Wetzel FT: Intervertebral disc degeneration adjacent to inter-transverse lumbar spine fusion - An experimental rabbit model. *J Bone Joint Surg*, 84(2);289-294, 2002.
27. Phillips FM, T Wetzel, Lieberman I, M Campbell-Hupp. An *in vivo* comparison of the potential for extra-vertebral cement leak after vertebroplasty and kyphoplasty. *Spine*, 27(19);2173-2177, 2002.
28. Wetzel FT, McNally T, Phillips FM: Intradiscal electrothermal therapy used to manage chronic discogenic low back pain. *Spine*, 27(22);2621-2626, 2002.
29. Phillips FM, Cunningham B: Managing chronic pain of spinal origin after lumbar surgery: The role of decompressive surgery. *Spine*, 27(22);2547-2553, 2002.
30. Phillips FM, Pfeifer BA, Lieberman IH, Kerr EJ 3rd, Choi IS: Minimally invasive treatments of osteoporotic vertebral compression fractures: vertebroplasty and kyphoplasty; *AAOS Instr Course Lect*.52:559-67, 2003.
31. Paul RJ, Haydon R, Chen H, Ishikawa A, Nenadovich N, Jiang W, Zhou L, Breyer B, Feng T, Gupta P, He TC, Phillips FM. Potential use of Sox-9 gene therapy in degenerative disc disease. *Spine*, 15:28(8);755-763, 2003.
32. Sun M, Cheng H, Phillips FM, Peng Y, Kang Q, Haydon R, He TC Bone morphogenic proteins and bone regeneration: From biology to clinical applications. *Adv Osteopor Fracture Management* 2(3);70-78, 2003.
33. Zdeblick TA, Phillips FM: Interbody Cage Devices. *Spine* 28(15):S2-7, 2003
34. Phillips FM. Minimally invasive treatments for osteoporotic vertebral fractures. *Spine* 28(15):S45-53, 2003
35. Phillips FM, Ho E, McNally T, Wetzel FT, Gupta P. Early clinical and radiographic results of kyphoplasty for the treatment of osteopenic vertebral compression fractures. *Spine* 1;28(19):2260-5, 2003
36. Cheng H, Jiang W, Phillips FM, Haydon RC, Peng Y, Zhou L, Luu HH, An N, Breyer B, Vanichakarn P, Szatkowski JP, Park JY, He TC. Osteogenic Activity of the 14 Types of Human Bone Morphogenetic Proteins (BMPs). *J Bone and Joint Surg* 85(8): 1544-1552, 2003
37. Patwardhan A, Caradang G, Ghanayem A, Voronov L, Cunningham B, Phillips FM. Compressive preload improves the stability of the anterior lumbar interbody fusion cage construct. *J Bone Joint Surg* 85(9): 1749-1756, 2003
38. Sun M, Cheng H, Phillips FM, Peng Y, Kang Q, Haydon R, He TC Bone morphogenic proteins and bone regeneration: From biology to clinical applications. *Adv Osteopor Fracture Management* 2(3);70-78, 2003.
39. Vaccaro A, Patel T, McCulloch JA, Truumees E, Fischgrund J, Herkowitz H, Hilibrand A, Phillips FM, Albert T. A pilot safety and efficacy study of OP-1 (rhBMP-7) with iliac crest autograft in posterolateral lumbar fusions for degenerative spondylolisthesis. *Eur Spine J* 12(5):495-500, 2003
40. Phillips FM. Noninstrumented posterolateral fusion for patients with spinal stenosis and degenerative spondylolisthesis. *Spine*. 29(2): 170-2, 2004.
41. Groen RJ, Du Toit DF, Phillips FM, Hoogland PV, Kuizenga K, Coppes MH, Muller CJ, Grobbelaar M, Mattysen J. Anatomic and pathologic considerations in percutaneous vertebroplasty and kyphoplasty: A reappraisal of the vertebral venous system. *Spine*. 1;29(13):1465-1471, 2004

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42. Phillips FM, Cunningham B, Carandang G, Voronov L, Ghanayem A, Havey RM, Patwardhan AG. Effect of supplemental translaminar facet screw fixation on the stability of stand-alone ALIF cages under physiologic compressive loads. *Spine*. 29(16):1731-1736, 2004
43. Yuan H, Brown C, Phillips FM. Osteoporotic Spinal Deformity: A Biomechanical Rationale for the Clinical Consequences and Treatment of Vertebral Body Compression Fractures. *J Spinal Disorders* 17(3):236-242, 2004
44. Phillips FM, Ho E, Cunningham BW. Radiographic criteria for placement of translaminar facet screws. *The Spine Journal* 4(4):465-467, 2004
45. Vaccaro A, Patel T, Fischgrund J, Anderson DG, Truumees E, Herkowitz HN, Phillips FM, Hilibrand A, Albert T, Wetzel T, McCulloch JA. A pilot study evaluating the safety and efficacy of OP-1 putty (rhBMP-7) as a replacement for iliac crest autograft in posterolateral lumbar fusions for degenerative spondylolisthesis. *Spine*. 29(17):1885-1892, 2004
46. Lieberman IH, Phillips FM, Togawa D, Modic M, Masaryk T, Obuchowski N, Slipman CW. Vertebral augmentation and the limits of interpreting complications reported in the food and drug administration manufacturer and user facility device experience database. *J Vasc Interv Radiol*. 15(11):1193-6, 2004
47. Vaccaro AR, Patel T, Fischgrund J, Anderson DG, Truumees E, Herkowitz H, Phillips F, Hilibrand A, Albert TJ. A 2-year follow-up pilot study evaluating the safety and efficacy of OP-1 putty (rhBMP-7) as an adjunct to iliac crest autograft in posterolateral lumbar fusions. *Eur Spine J*. 26, 2005.
48. Gaitanis IN, Voronov LI, Ghanayem AJ, Carandang G, Magovern B, Havey RM, Zindrick MR, Phillips, FM, Hadjipavlou AG, Patwardhan AG. Effect of balloon (bone tamp) inflation on restoring geometric and loading alignment in thoracic vertebral compression fractures. Accepted *Eur Spine J*, 2003.
49. Gaitanis IN, Carandang G, Phillips, FM, Voronov LI, Ghanayem AJ, Magovern B, Havey RM, Zindrick MR, Hadjipavlou AG, Patwardhan AG. Restoring geometric and loading alignment of thoracic spine with vertebral compression fracture. Effects of balloon tamp inflation and spinal extension. *Spine J*. 5(1):45-54; 2005.
50. Seldomridge JA, Phillips FM. Minimally invasive spine surgery. *Am J Orthop*. 36(5):224-232, 2005.
51. Phillips FM, Garfin S. Cervical disc replacement. *Spine*. 30(17S):S27-33, 2005
52. Phillips FM, Bolt PM, He TC, Haydon R. Gene therapy for spine fusion. *Spine J*. 5(6):S250-8, 2005.
53. Singh K, Strom J, Manning D, Campbell-Hupp M, Wetzel FT, Gupta P, Phillips FM. A prospective, randomized, double-blind study evaluating the efficacy of postoperative continuous local anesthetic infusion at the iliac crest bone graft site after spinal arthrodesis. *Spine*. 30(22):2477-83, 2005.
54. Zhang Y, Li Z, He T-C, Thonar E, An HS, Pietryla, D, Phillips, FM. Transduced bovine articular chondrocytes affect the metabolism of cocultured nucleus pulposus cells in vitro: implications for chondrocyte transplantation into the intervertebral disc. *Spine* 30(23):2601-7, 2005.55. Singh K, Heller JG, Samartzis D, Price S, An HS, Yoon ST, Rhee J, Ledlie J, Phillips FM. Open cement augmentation combined with lumbar decompression for the operative management of

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- thoracolumbar stenosis secondary to osteoporotic burst fractures. *J Spinal Disord Tech.* 18(5):413-419, 2005
56. Singh K, Samartzis D, Vaccaro AR, Nassr A, Andersson GB, Yoon ST, Phillips FM, Goldberg EJ, An HS. Congenital lumbar spinal stenosis: a prospective, control-matched, cohort radiographic analysis. *Spine J.* 5(6):615-22, 2005.
57. Vaccaro A, Anderson DG, Patel T, Fischgrund J, Truumees E, Herkowitz HN, Phillips FM, Hilibrand A, Albert T, Wetzel T, McCulloch JA. Comparison of OP-1 Putty (rhBMP-7) to iliac crest autograft for posterolateral lumbar arthrodesis: a minimum 2-year follow-up pilot study. *Spine.* 15;30(24):2709-16, 2005.
58. Hughes SS, Pringle T, Phillips FM, Emery S. Settling of Fibula Strut Grafts Following Multilevel Anterior Cervical Corpectomy: A Radiographic Evaluation. *Spine.* 31(17):1911-1915, 2006.
59. Phillips FM, Sulpizio BS, Mohr K, Turner S, MacLeay J, Toth CA, Wheeler D. *In vivo* BMP-7 enhancement of osteoporotic vertebral bodies in an ovine model. *Spine J.* 6(5):500-6. 2006
60. Manson NA, Phillips FM. Minimally invasive techniques for the treatment of osteoporotic vertebral fractures. *J Bone Joint Surg. Am.* 88(8):1862-72. 2006
61. Frantides CT, Zeni TM, Phillips FM, Mathur S, Zografakis JG, Moore RM, Laguna LE. L5-S1 Laparoscopic anterior interbody fusion. Submitted *J Soc Laparoendoscopic Surg.* 10(4):488-92. 2006.
62. Zhang Y, An HS, Thonar E, Pietryla, D, Chubinskaya S, He T-C, Phillips, FM. Comparative Effects of Adenovirus Expressing Bone Morphogenetic Proteins and Sox9 on Extracellular Matrix Metabolism of Bovine Nucleus Pulposus Cells. *Spine* 31(19):2173-2179, 2006.
63. Phillips FM, Voronov, L, Gaitanis, I, Carandang, G, Havey, R, Patwardhan, A G. Biomechanics of posterior dynamic stabilizing device (DIAM) after facetectomy and discectomy. *Spine J.* 6(6):714-22, 2006
64. DuBois CM, Bolt PM, Todd AG, Gupta P, Wetzel FT, Phillips FM. Static versus dynamic plating for multilevel anterior cervical discectomy and fusion. *Spine J.* 7:188-193, 2007
65. Vaccaro AR, Whang PG, Patel T, Phillips FM, Anderson DG, Albert TJ, Hilibrand AS, Brower RS, Kurd MF, Appannagari A, Patel M, Fischgrund JS. The safety and efficacy of OP-1 (rhBMP-7) as a replacement for iliac crest autograft for posterolateral lumbar arthrodesis: minimum 4-year follow-up of a pilot study. *Spine J.* 8(3):457-65; 2008
66. Zhang Y, Anderson DG, Phillips FM, Thonar EJ, He TC, Pietryla D, An HS. Comparative effects of Bone Morphogenetic Proteins and Sox9 overexpression on matrix accumulation by bovine annulus fibrosus cells - Implications for annular repair. *Spine* 32(23): 2515-2520, 2007
67. Singh K, Campbell-Hupp M, Kuo E, Phillips FM. A prospective, randomized, double-blind study of the efficacy of postoperative continuous local anesthetic infusion at the iliac crest bone graft site after posteriorspinal arthrodesis: A minimum of four-year follow-up. *Spine.* 1;32(25):2790-6; 2007
68. Tzermiadianos MN, Renner SM, Phillips FM, Hadjipavlou AG, Zindrick MR, Havey RM, Voronov M, Patwardhan AG. Altered disc pressure profile after an osteoporotic vertebral fracture is a risk factor for adjacent vertebral body fracture. *Eur Spine J.* 2008
69. Phillips FM, Tzermiadianos MN, Voronov LI, Havey RM, Carandang G, Renner SM, Rossler DM, Ochoa J, Patwardhan AG. Effect of the Total Facet Arthroplasty System after complete

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- laminectomy-facetectomy on the biomechanics of implanted and adjacent segments. *Spine J.* 9(1):96-102, 2009.
70. Zhang Y, Phillips FM, Thonar EJ, Oegema T, An HS, Roman-Blas JA, He TC, Anderson DG., Cell therapy using articular chondrocytes overexpressing BMP-7 or BMP-10 in a rabbit disc organ culture model. *Spine* 33(8):831-838; 2008
71. Kwon BK, Mann C, Sohn HM, Hilibrand AS, Phillips FM, Wang JC, Fehlings MG. Hypothermia for spinal cord injury. *Spine J.* 2008
72. Li X, An HS, Ellman M, Phillips FM, Thonar EJ, Park D, Udayakumar RK, Im HJ. The catabolic and anti-anabolic action of Basic Fibroblast Growth Factor on the intervertebral disc. *Arthritis Res Ther.* 10(2), 2008
73. Rihn JA, Gates C, Glassman SD, Phillips FM, Schwender JD, Albert TJ. The use of bone morphogenetic protein in lumbar spine surgery. *J Bone Joint Surg Am.* 90(9):2014-25, 2008
74. Li X, Phillips FM, An HS, Ellman M, Thonar E, Wu W, Park D, Im HJ. The action of resveratrol, a Phytoestrogen found in grapes, on the intervertebral disc. *Spine* 13(24): 2586-2595, 2008
75. Phillips FM, Allen RT, Regan JJ, Albert TA, Capuccino 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* 15;34(6):556-65, 2009.
76. Zhang Y, Markova D, Im HJ, Hu W, Thonar EJ, He TC, An HS, Phillips FM, Anderson DG. Primary bovine intervertebral disc cells transduced with adenovirus over-expressing 12 BMPs and Sox9 maintain appropriate phenotype. *Am J Phys Med Rehabil.* 88(6):455-63, 2009.
77. Rihn JA, Berven S, Phillips FM, Currier BL, et al. Defining value in spine care. *Am J Med Qual.* 24(6):4-14, 2009
78. Allen RT, Rihn JA, Glassman SD, Currier B, Albert TJ, Phillips FM. An evidence-based approach to spine care. *Am J Med Qual.* 24(6):15-24, 2009
79. Smith HE, Rihn JA, Brodke DS, Guyer R, Coric D, Lonner B, Shelokov AP, Currier BL, Riley L, Phillips FM, Albert TA. Spine Care: Evaluation of the efficacy and cost of emerging technology. *Am J Med Qual.* 24(6):25-32, 2009
80. Phillips FM, Tzermiadianos MN, Voronov LI, Havey RM, Carandang G, Dooris A, Patwardhan AG. Effect of two-level total disc replacement on cervical spine kinematics. *Spine* 15:34(22):794-9, 2009.
81. McAfee PC, Cappucino A, Cunningham BW, DeVine JG, Phillips FM, Regan JJ, Albert TJ, Ahrens JE. Lower incidence of dysphagia with cervical arthroplasty compared with ACDF in a prospective randomized clinical trial. *J Spinal Disord Tech* 23:1-8, 2010
82. Park DK, Lee MJ, Lin EL, Singh K, An HS, Phillips FM. The Relationship of Intrapsoas Nerves During a Transpsoas Approach to the Lumbar Spine: Anatomic Study. *J Spinal Disord Tech.* 23(4):223-8, 2010.
83. Pelinkovic D, Udayakumar RK, Phillips FM. Balloon-assisted fracture reduction in high energy burst fractures. *Seminars in Spine Surgery* 22(2): 67-72, 2010
84. Park DK, Lin EL, Phillips FM. Index and adjacent level kinematics after cervical disc replacement and anterior fusion; In vivo radiographic analysis. *Spine (Phila Pa 1976).* 20;36(9):721-30, 2011.

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85. Singh K, Dumonski M, Stanley T, Ponnappan R, Phillips FM. Repeat use of rhBMP-2 for second level lumbar arthodesis. *Spine* 36(3):192-196, 2011
86. Lee M, Dumonski M, Phillips F, Voronov L, Renner S, Carandang G, Havey R, Patwardhan A. disc replacement adjacent to cervical fusion: A biomechanical comparison of hybrid construct vs. two-level fusion. *Spine (Phila Pa 1976)*. 1;36(23):1932-9, 2011
87. McAfee PC, Phillips FM, Andersson G, Buvenenadran A, Kim CW, Lauryssen C, Isaacs RE, Youssef JA, Brodke DS, Cappuccino A, Akbarnia BA, Mundis GM, Smith WD, Uribe JS, Garfin S, Allen RT, Rodgers WB, Pimenta L, Taylor W. Minimally invasive spine surgery. *Spine* 15;35: S271-3, 2010
88. Mundis GM, Akbarnia BA, Phillips FM. Adult deformity correction through minimally invasive lateral approach techniques. *Spine* 15;35:S312-21, 2010
89. Isaacs RE, Hyde J, Goodrich JA, Rodgers WB, Phillips FM. A prospective, nonrandomized, multicenter evaluation of extreme lateral interbody fusion for the treatment of adult degenerative scoliosis: perioperative outcomes and complications. *Spine* 15;35:S322-30, 2010
90. Kim CW, Siemionow K, Anderson DG, Phillips FM. The current state of minimally invasive spine surgery. *J Bone Joint Surg Am* 93(6):582-96, 2011
91. Phillips FM, Garfin SR. Minimally invasive sacroiliac joint fusion. *Orthopedics* 34(8):600-1, 2011
92. McAfee PC, Garfin SR, Rodgers WB, Allen RT, Phillips FM, Kim C. An attempt at clinically defining and assessing minimally invasive surgery compared with traditional open spinal surgery. *SAS Journal* 5;125-130 2011
93. Papanastassiou ID, Phillips FM, Van Meirhaeghe J, Berenson JR, Andersson GB, Chung G, Small BJ, Aghayev K, Vrionis FD. Comparing the effects of kyphoplasty, vertebroplasty, and nonsurgical management in a meta-analysis of nonrandomized controlled studies. *Eur Spine J*. 21(9):1826-43 2012.
94. Pelton MA, Phillips FM, Singh K. A Comparison of Peri-operative Costs and Outcomes in Patients With and Without Workers' Compensation Claims Treated with MIS or Open TLIF. *Spine (Phila Pa 1976)*. 37(22):1914-9 2012.
95. Singh K, Phillips FM, Park DK, Pelton MA, An HS, Goldberg EJ. Factors affecting reoperations after anterior cervical discectomy and fusion within and outside of a Federal Drug Administration investigational device exemption cervical disc replacement trial. *Spine J*. 12(5):372-8 2012
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83. Singh K, Heller JG, Samartzis D, Price S, An HS, Ledlie A, Phillips FM. Cement augmentation and lumbar decompression for the operative management of thoracolumbar stenosis secondary to osteoporotic burst fractures. North American Spine Society Annual Meeting. 2005. Philadelphia
84. Phillips, FM, Diaz R, Pimenta L. The fate of the facet joints after lumbar total disc replacement: A two-year clinical and MRI study. Spine Arthroplasty Society Annual Meeting. 2005 New York.
85. Welch W Gatchel R, Karausky P, Herkowitz H, Maiman D, Phillips FM Wetzel FT, Carragee E, Mathew H. A Retrospective Study Examining Five Year Post-Surgical Outcomes of Virgin Discectomy Patients. North American Spine Society Annual Meeting. 2005. Philadelphia.
86. Phillips, FM, Diaz R, Pimenta L. The fate of the facet joints after lumbar total disc replacement. A clinical and MRI study. North American Spine Society Annual Meeting. 2005. Philadelphia.

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88. Phillips, FM, Diaz R, Pimenta L. Minimally invasive fusion (XLIF) in the treatment of symptomatic degenerative lumbar scoliosis. 12th International Meeting on Advanced Spine Techniques, Banff, Canada, July 2005
89. K Singh, D Manning, D Samartzis, M Campbell-Hupp, FT Wetzel, P Gupta, J Strom, F Phillips, A prospective, randomized, double blind study of the efficacy of post-operative continuous local anaesthetic infusion at the iliac crest bone graft site after spinal arthrodesis. Scoliosis Research Society 40th Annual Meeting 2005 Miami FL
90. Patwardhan A, Gaitanis I, Cronsell C, Voronov M, Havey R, Carandang G, Sartori M, Phillips F, Zindrick M, Ghanayem. Risk of adjacent vertebral body fractures after balloon kyphoplasty: a biomechanical study. Scoliosis Research Society 40th Annual Meeting 2005 Miami FL
91. Frantides CT, Zeni TM, Phillips FM, Zografakis JG, Moore RE, Madan AK. L5-S1 Laparoscopic Anterior Interbody Fusion. Society of Laparoendoscopic Surgeons, 14th International Congress, San Diego CA 2005 (Best Multispeciality Scientific paper)
92. Singh K, Heller JG, Samartzis D, Price S, An HS, Ledlie A, Phillips FM. Open cement augmentation and lumbar decompression with and without posterior instrumentation for the operative management of thoracolumbar stenosis secondary to osteoporotic burst fractures. World Spine III, Rio de Janeiro, Brazil August 2005.
93. K Singh, D Manning, D Samartzis, M Campbell-Hupp, FT Wetzel, P Gupta, J Strom, F Phillips, A prospective, randomized, double blind study of the efficacy of post-operative continuous local anaesthetic infusion at the iliac crest bone graft site after spinal arthrodesis. World Spine III, Rio de Janeiro, Brazil August 2005
94. Fayazi A, Hussain M, Natarajan R, Phillips FM, An H. Effect of graft-endplate contact surface morphology on the on the biomechanics of anterior cervical corpectomy fusion and rigid plating. A finite-element model study. World Spine III, Rio de Janeiro, Brazil August 2005.
95. Fayazi A, Hussain M, Natarajan R, Phillips FM, An H. Effect of screw angulation on bone graft load sharing and bone-screw stresses in anterior cervical corpectomy fusion with rigid plate screw construct. A finite-element model study. World Spine III, Rio de Janeiro, Brazil August 2005
96. Phillips FM, Peterson MD. Initial experience with a novel minimally invasive pedicle screw system as supplementation to mini TLIF. World Spine III, Rio de Janeiro, Brazil August 2005
97. Patwardhan A, Gaitanis I, Cronsell C, Voronov M, Havey R, Carandang G, Sartori M, Phillips FM, Zindrick M, Ghanayem. Biomechanics of subsequent vertebral body fracture after balloon kyphoplasty. World Spine III, Rio de Janeiro, Brazil August 2005
98. Renner S, , Voronov L, Havey R, Gaitanis I, Guo B, Lorenz M, Ghanayem A, Natarajan R, Patwardhan A, M, Phillips FM. Effect of compressive follower preload and transpedicular instrumentation on the biomechanical stability of isthmic spondylolisthesis. World Spine III, Rio de Janeiro, Brazil August 2005.
99. Zhang Y, Thonar E, Phillips FM. Chondrocyte based gene therapy for the degenerating intervertebral disc in the rabbit organ culture system. 13th International Meeting on Advanced Spine Techniques, Athens, Greece, July 2006

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101. Vaccaro A, Anderson GA, Patel T, Fischgrund J, Truumees E, Herkowitz H, Phillips FM, Albert T, Hillibrand A, Wetzel T, Whang P. Durability of uninstrumented spinal fusion with OP-1 Putty: long term follow-up of a pilot study. North American Spine Society Annual Meeting. Seattle, 2006.
102. Zhang Y, An H, Thonar E, Oegema T, Andersson G, Phillips FM. Chondrocyte based gene therapy for the degenerating intervertebral disc in the rabbit organ culture system. North American Spine Society Annual Meeting. Seattle, 2006.
103. Pimenta L, Diaz R, Phillips, FM. XLIF for lumbar degenerative scoliosis: Outcomes of minimally invasive surgical treatment out to 3 years. North American Spine Society Annual Meeting. Seattle, 2006.
104. Ponnappan R, Zhang Y, Phillips FM. Transplantation of BMP-transduced chondrocytes to reverse intervertebral disc degeneration in rabbits. Cervical Spine Research Society, 34th Annual Meeting, Palm Beach, FL November 2006
105. Zhang Y, Phillips FM, Anderson G, Thonar E, Pietryla D, He TC, An H. Comparative Effects of Bone Morphogenetic Proteins and Sox9 overexpression on Matrix Accumulation by Bovine Anulus Fibrosus Cells - Implications for Anular Repair. Cervical Spine Research Society, 34th Annual Meeting, Palm Beach, FL November 2006
106. Kim HH, An HS, Phillips, FM, Im HJ. The action of resveratrol, a phtoestrogen found in grapes, in the intervertebral disc. 53rd Annual Meeting Orthopaedic Research Society. February 2006, San Diego
107. Zhang Y, Anderson G, Phillips FM, Thonar E, He TC, Pietryla D, An H. Comparative effects of Bone Morphogenetic Proteins and Sox9 overexpression on matrix accumulation by bovine anulus fibrosus cells - implications for anular repair. International Society for the Study of the Lumbar Spine Annual Meeting. Hong Kong, 2007
108. use of BMP in the spine highlighting OP-1 in PLF. International Society for the Study of the Lumbar Spine Annual Meeting. Hong Kong, 2007.
109. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. Initial outcomes following PCM arthroplasty for the treatment of symptomatic cervical spondylosis: Results of a prospective, randomized, multi-center study. Spine Arthroplasty Society Annual Meeting. Berlin. 2007
110. Phillips FM, Tzermiadianos M, Voronov L, Havey RM, Carandang G, Dooris A, Patwardhan A. Kinematics of two-level cervical disc replacement on reconstructed and adjacent levels. Spine Arthroplasty Society Annual Meeting. Berlin. 2007
111. Phillips FM, Pimenta L, Runnells J, Seim H, Turner S, Van Sickle D, Ferree B. In vivo effects of a novel annular repair device in sheep. Spine Arthroplasty Society Annual Meeting. Berlin. 2007
112. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. Cervical arthroplasty: Comparison of outcomes in patients with and without previous adjacent level ACDF surgery. IMAST Annual Meeting, Bahamas. 2007
113. Whang P, Vaccaro A, Anderson G, Patel T, Phillips FM, Anderson G, Albert TJ, Hillibrand AS, Bower RS, Fischgrund J. Long term follow up of a pilot study evaluating the safety and efficacy of OP-1 as a replacement for iliac crest autograft for posterolateral lumbar arthrodesis. IMAST Annual

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114. Ferree B, Phillips FM, Pimenta L, Runnells J, Seim H, Turner S, Van Sickle D. In vivo effects of a novel annular repair device in sheep. IMAST Annual Meeting, Bahamas. 2007
 115. Lee M, Dumonski M, Phillips F, Voronov L, Renner S, Carandang G, Havey R, Patwardhan A. Disc Replacement adjacent to previous cervical fusion: A Biomechanical Comparison of Hybrid Construct vs. Two-Level Fusion. 6th Combined ORS Meeting, Honolulu, Hawaii. 2007
 116. Kim HH, An H, Phillips, FM, Sampen HJI. The action of Resveratrol, a phytoestrogen found in grapes on the intervertebral disc. ORS Annual Meeting, San Diego, 2007
Shah J, Phillips FM, An H, Kim HH, Im H. The action of bFGF on intervertebral disc chondrocytes. ORS Annual Meeting, San Diego, 2007
 117. Phillips FM, Pimenta L, Ferree B, Runnells J, Seim H, Turner S, Van Sickle D. In vivo effects of a novel annular repair device in sheep. North American Spine Society Annual Meeting. Austin, 2007.
 118. Singh K, Phillips FM, Kuo E, Campbell M, Samartzis D. A prospective, randomized, double blind study of the efficacy of post-operative continuous local anaesthetic infusion at the iliac crest bone graft site after posterior spinal fusion: Four-year follow-up. North American Spine Society Annual Meeting. Austin, 2007.
 119. Phillips FM, Pimenta L, Spenciner D, Paller D, Ferree B. Biomechanical Evaluation of a Novel Annular Repair Device. North American Spine Society Annual Meeting. Austin, 2007.
 120. FM Phillips, K Singh, J Shah,, HS. An, E Goldberg, G Andersson. Factors Affecting Re-operations after ACDF within and outside of an FDA IDE Cervical TDR Trial. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 121. PC McAfee, A Cappuccino, JG DeVine, FM. Phillips, MD, JJ. Regan, BW Cunningham, FH. Geisler, J Ahrens. Lower Incidence of Dysphagia with Cervical Arthroplasty compared to ACDF in a Prospective Randomized Clinical Trial. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 122. Singh K, Stanley T, Dumonski M, Phillips FM. Repeat arthrodesis with rhBMP-2 at an adjacent spinal level; An assessment of efficacy and immunologic response. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 123. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. Cervical disc replacement in patients with and without previous adjacent level ACDF surgery. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 124. Phillips, FM, Kim HH, An H, Sampen HJI. Effects of Resveratrol, found in red wine on the nucleus pulposus. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 125. Dumonski M, Stanley T, Singh K, Phillips FM. Repeat arthrodesis with rhBMP-2 at an adjacent spinal level; An assessment of efficacy and immunologic response. American Academy of Orthopaedic Surgery, Annual Meeting, San Francisco, 2008
 126. Phillips FM, Park D, Lee M, AN H, Lin E. Extreme lateral lumbar fusion (XLIF) with reference to location of the intra-psoas nerve roots; an anatomic study. Lumbar Spine Research Society, Annual Meeting, Chicago, IL April 2008

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127. FM Phillips, K Singh, J Shah,, HS. An, E Goldberg, G Andersson. Factors Affecting Re-operations after ACDF within and outside of an FDA IDE Cervical TDR Trial. Spine Arthroplasty Society 8th Annual Meeting, Miami. May, 2008
128. Regan JJ, Phillips FM, Cappuccino A, DeVine JG, McAfee PC. Results of a prospective, randomized, multi-center clinical trial of PCM cervical disc replacement: Two year clinical outcome. Spine Arthroplasty Society 8th Annual Meeting, Miami. May, 2008.
129. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, Ahrens J, McAfee PC. Cervical disc replacement in patients with and without previous adjacent level ACDF surgery. EuroSpine Annual Meeting, Geneva, Switzerland, May 2008.
130. Phillips F, Lee M, Dumonski M, Voronov L, Renner S, Carandang G, Havey R, Patwardhan A. Disc Replacement adjacent to previous cervical fusion: A Biomechanical Comparison of Hybrid Construct vs. Two-Level Fusion. EuroSpine Annual Meeting, Geneva, Switzerland, May 2008.
131. K Singh, FM Phillips, J Shah,, HS. An, E Goldberg, G Andersson. Factors Affecting Re-operations after ACDF within and outside of an FDA IDE Cervical TDR Trial. North American Spine Society Annual Meeting. Toronto, 2008.
132. Dumonski M, Stanley T, Singh K, Phillips FM. Repeat use of rhBMP-2 at an adjacent spinal level; An assessment of efficacy and immunologic response. North American Spine Society Annual Meeting. Toronto, 2008.
133. PC McAfee, A Cappuccino, JG DeVine, JJ. Regan, BW, FM. Phillips. Lower Incidence of Dysphagia with Cervical Arthroplasty compared to ACDF in a Prospective Randomized Clinical Trial. North American Spine Society Annual Meeting. Toronto, 2008.
134. Ellman M, An HS, Mudassani P, Phillips FM, Udayakumar R, Im HJ. The pathophysiological role of the PKCdelta pathway in the intervertebral disc. North American Spine Society Annual Meeting. Toronto, 2008.
135. Li X, Ellman M, An HS, Phillips FM, Udayakumar R, Im HJ. Basic fibroblast growth factor antagonizes the action of BMP7 in the intervertebral disc. North American Spine Society Annual Meeting. Toronto, 2008.
136. Phillips FM, Susilo M, Nauman E, Van Sickle D, Ferree B. Human mesenchymal stem cells differentiate into NP-like cells when cultured on allograft NP scaffolds. North American Spine Society Annual Meeting. Toronto, 2008.
137. Park D, Lee M, Lin E, An H, Phillips FM. Extreme lateral lumbar interbody fusion with référence to location of the intrapsoas nerve roots : An anatomic study. Society of Minimally Invasive Spine Surgery, Annual Meeting. Las Vegas, 2008.
138. Dumonski, ML, Syed IS, Cahill PJ, Shahkarami A, An HS, Goldberg EJ, Phillips, FM. A Comparison of Fusion Rates with Fresh-Frozen or Freeze-Dried Allograft in Anterior Cervical Discectomy and Fusion. American Academy of Orthopaedic Surgery, Annual Meeting, Las Vegas, 2009
139. Park D, Lin EL, Braaksma B, Phillips FM. Comparison of index and adjacent level kinematics following cervical disc replacement versus fusion. Spine Arthroplasty Society 9th Annual Meeting, London, UK. May, 2008.
140. Phillips FM, Susilo M, Nauman E, Van Sickle D, Ferree B. Human mesenchymal stem cells differentiate into NP-like cells when cultured on allograft NP scaffolds. Spine Arthroplasty Society 9th Annual Meeting, London, UK. May, 2008.

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141. Phillips FM, Ahrens J, Albert TJ. Predicting relief of radiculopathy in patients receiving ACDF or TDR: Factors associated with response. Spine Arthroplasty Society 9th Annual Meeting, London, UK. May, 2008.
142. Im HJ, Kim J, Phillips FM, Park S-Y, Ahmed S, Murphy An H. IGF-1 enhances BMP-7-mediated anabolism via suppression of noggin expression in intervertebral disc cells. North American Spine Society Annual Meeting. San Francisco, 2009.
143. Zhang Y, Markova D, Im HJ, Hu W, Thonar E, He TC, An H, Phillips FM, Andersson G. Primary bovine intervertebral disc cells transduced with adenovirus overexpressing 12 BMPs and Sox-9 maintain their chondrocyte-like phenotype. North American Spine Society Annual Meeting. San Francisco, 2009.
144. Kim J, Im HJ, Phillips FM, Park S-Y, Ahmed S, Murphy An H. BMP-7 and IGF-1 combination treatment induces TGF-beta SMAD2/3 signaling pathway in bovine intervertebral disc cells. North American Spine Society Annual Meeting. San Francisco, 2009
145. Patwardhan A, Voronov L, Havey R, Phillips FM. Primary and coupled motions of the cervical spine after total disc replacement. Cervical Spine Research Society, 37th Annual Meeting, Salt Lake City 2009
146. Park DK, Lin EL, Phillips FM. The in vivo effects of cervical TDR and ACDF on treated and adjacent segments. Implications for adjacent level degeneration. Cervical Spine Research Society, 37th Annual Meeting, Salt Lake City 2009
147. Phillips FM, Brakmsa B, Albert TJ, Ahrens J. Predicting relief of neck and arm pain in patients' receiving ACDF or TDR. Factors associated with response. Cervical Spine Research Society, 37th Annual Meeting, Salt Lake City 2009
148. Kornblum MB, Turner AWL, Zatushevsky, Cornwall GB, Phillips FM. Biomechanical Evaluation of a Standalone Lumbar Interbody Cage with Integrated Screws. Society of Minimally Invasive Spine Surgery (SMISS) Annual Meeting Las Vegas, 2009
149. Isaacs R, Hyde J, Goodrich JA, Rodgers WB, Phillips FM. Peri-operative outcomes and complications following XLIF for the treatment of adult scoliosis. Results of a prospective, non-randomized, multi-center evaluation. Society of Minimally Invasive Spine Surgery (SMISS) Annual Meeting Las Vegas, 2009
150. Rihn J, Hipp JA, Radcliff KE, Phillips FM, Albert TJ. Relationship between radiographic variables and clinical outcomes in cervical disc replacement surgery. Cervical Spine Research Society, 38th Annual Meeting, Charlotte, 2010
151. Phillips FM, Khan S. Minimally invasive treatment of adult scoliosis with XLIF. Radiographic outcomes and predictors from a prospective, multicenter study. Spine Arthroplasty Society 11th Annual Meeting, Las Vegas. May, 2011
152. Phillips FM, Rudolf LM. Retrospective evaluation of minimally invasive method for sacroiliac joint arthrodesis. Spine Arthroplasty Society 11th Annual Meeting, Las Vegas. May, 2011
153. McAfee PC, Cappuccino A, Cunningham BW, Devine JG, Phillips FM, Regan JJ, Reah C, Eiserman L. Superiority of PCM cervical arthroplasty compared to ACDF in a prospective randomized trial. Spine Arthroplasty Society 11th Annual Meeting, Las Vegas. May, 2011
154. Phillips FM, Cappuccino A, Geisler FH, Chaput C, DeVine JG, Reah CJ, Gilder K, Howell KM, McAfee PC. A Prospective, Randomized Clinical Investigation of the Porous Coated Motion (PCM) Artificial Cervical Disc: Two Year Results from the US IDE Study. 18th International

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- Meeting on Advanced Spine Techniques, Copenhagen, July 2011
155. Geisler FH, Phillips FM, Chaput C, Cappuccino A, DeVine JG, Reah CJ, Gilder K, Howell KM, McAfee PC. Cervical Disc Arthroplasty in Patients with Prior Fusions. 18th International Meeting on Advanced Spine Techniques, Copenhagen, July 2011
 156. Mahar A, Allen RT, Massie J, Phillips FM Preclinical study of human allogenic amniotic membrane as a barrier to epidural fibrosis in the early wound of a post laminectomy rat model. North American Spine Society Annual Meeting. Chicago, 2011
 157. Moss I, Phillips FM. Why don't annular defects heal? Does interposed nucleus pulposus prevent healing? An in vivo study. North American Spine Society Annual Meeting. Chicago, 2011
 158. Phillips FM, Cappuccino A, Geisler FH, Chaput C, DeVine JG, Reah CJ, Gilder K, Howell KM, McAfee PC. A Prospective, Randomized Clinical Investigation of the Porous Coated Motion (PCM) Artificial Cervical Disc: Two Year Results from the US IDE Study. North American Spine Society Annual Meeting. Chicago, 2011
 159. Papanastassiou I, Phillips FM, Van Meirhaeghe J, Andersson G, Berenson J. Comparison of kyphoplasty, vertebroplasty and nonsurgical management in a meta-analysis of randomized and nonrandomized controlled studies. North American Spine Society Annual Meeting. Chicago, 2011
 160. Khan S, Phillips FM, Hyde J, Huntsman K, Isaacs R, Deviren V. Radiographic correction achievable in adult dégénérative scoliosis treated by XLIF. Influence of choice of fixation. North American Spine Society Annual Meeting. Chicago, 2011
 161. Singh K, Phillips FM, Pelton MA. A comparison of open versus MIS TLIF in a workers compensation patient population. ISASS Annual Meeting. Barcelona 2012
 162. Phillips FM, Rodgers WB, Tohmeh A. Adult dégénérative scoliosis treated by XLIF : Clinical results of a 24-month multi-center prospective study. ISASS Annual Meeting. Barcelona 2012.
 163. Van Meirhaeghe J, Papanastassiou ID, Phillips FM. Comparing effects of kyphoplasty, vertebroplasty and nonsurgical management in a meta-analysis of randomized and nonrandomized controlled studies. ISASS Annual Meeting. Barcelona 2012.
 164. Chaput CD, Phillips FM, Cappuccino A, Geiser FH, DeVine JG, Gilder K, Howell KM, McAfee PC. Treatment of cervical myeloradiculopathy with the PCM TDR compared to ACDF in a prospective randomized clinical trial. ISASS Annual Meeting. Barcelona 2012.
 165. Patwardhan A, Voronov LI, Tsitsopoulos PP, Potluri T, Hannon S, Zelenakova J, Carandang G, Phillips FM, Zindrick MR, Ghanayem AJ, Havey RM. Effect of PLL résection on TDR kinematics: To cut or not to cut. ISASS Annual Meeting. Barcelona 2012.
 166. Havey R, Goodsitt J, Potluri T, Hannon S, McIntosh B, Phillips FM, Zindrick MR, Tsitsopoulos PP, Voronov LI, Patwardhan A. Facet engagement in the intact cervical spine. Voronov LI.
 167. DeVine JG, Chaput CD, Phillips FM, Geisler FH, Cappuccino A, Gilder K, Howell KM, McAfee PC. A prospective randomized clinical investigation of the PCM artificial disc : Radiographic outcomes. ISASS Annual Meeting. Barcelona 2012.
 168. Singh K, Phillips FM, Pelton MA, Andersson G, Isayeva D. A péri-operative cost and charge analysis comparing single-level minimally invasive and open transforaminal lumbar interbody fusion. Singh K, Phillips FM, Pelton MA. ISASS Annual Meeting. Barcelona 2012.
 169. Voronov I, Tsitsopoulos PP, Potluri T, Hannon S, Zelenakova J, Carandang GC, Phillips FM et

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- al. Effect of PLL resection on kinematics of cervical artificial disc replacement. To cut or not to cut. Spineweek. Amsterdam 2012
170. Badlani N, Pelton M, Foran J, Phillips FM, Singh K, Garfin SG, Allen T. Patient perception of physician reimbursement for spine surgery. North American Spine Society Annual Meeting. Dallas, 2012
171. Voronov L, Pawardhan AG, Tsitsopoulos P, Polari T, Hannon J, Carandang G, Phillips FM, Zindrick M, Ghanayem A, Havey RM. Does PLL resection affect stability of cervical disc arthroplasty ? North American Spine Society Annual Meeting. Dallas, 2012
172. Patwardhan A, Tsitsopoulos PP, Potluri T, Hannon S, Zelenakova J, Carandang G, Phillips FM et al. Does PLL resection affect stability of cervical disc arthroplasty? Cervical Spine Research Society, 40th Annual Meeting, Chicago, IL. December 2012
173. Phillips FM, Gilder K, Howell KM, Geisler FH, Chaput C, Reah CJ, DeVine JG, McAfee PC. A Prospective, Randomized Clinical Investigation of the PCM Cervical Disc: Five year results from the US IDE study. International Meeting on Advanced Spine Techniques (IMAST) 20th Annual Meeting. Vancouver, Canada. July 2013
174. McAfee PM, Gilder K, Howell KM, Phillips FM, Geisler FH, Chaput C, DeVine JG, Long term evolution of dysphagia with PCM cervical disc compared to ACDF in a prospective, randomized clinical trial: Five year results from the US IDE study. International Meeting on Advanced Spine Techniques (IMAST) 20th Annual Meeting. Vancouver, Canada. July 2013
175. Singh K, Nandyala SV, Marquez-Lara A, Fineberg SJ, Oglesby M, Pelton MA, Andersson G, Phillips FM. A perioperative cost analysis comparing single-level minimally invasive and open transforaminal lumbar interbody fusion. Society for Minimally Invasive Spine Surgery (SMISS) Annual Meeting. Los Vegas November 2013.
176. Phillips FM, Gilder K, Howell KM, Geisler FH, Chaput C, Reah CJ, DeVine JG, McAfee PC. A Prospective, Randomized Clinical Investigation of the PCM Cervical Disc: Five year results from the US IDE study. North American Spine Society Annual Meeting. New Orleans, 2013

NATIONAL/INTERNATIONAL PRESENTATIONS — POSTERS

1. Posever J, Phillips FM, Pottenger LA. Effects of insulin, IGF-I, TGF β and bFGF on osteoarthritic human articular cartilage explants. 40th Annual Meeting, Orthopaedic Research Society. February 1994, New Orleans
2. Phillips FM, Posever J, Pottenger LA. Effects of insulin, IGF-I, TGF β and bFGF on osteoarthritic human articular cartilage explants. 107th Annual Meeting, American Orthopaedic Association (**AOA-Zimmer Resident Award winner**). June 1994, Sun Valley
3. Wetzel FT, Phillips FM. Verification of pedicle screw placement with epidural and intraosseous visualization. North American Spine Society, Annual Meeting. October 1996, Vancouver
4. Pokharna H, Phillips FM. Pentosidine and pyridinoline crosslinks in human lumbar intervertebral disc aging and degeneration. American College of Rheumatology, 60th National Scientific Meeting. October 1996, Orlando
5. Phillips FM, Phillips CS, Wetzel FT, Gelinas C. Occipito-cervical neutral position - possible surgical implications. Cervical Spine Research Society, 24th Annual Meeting. November 1996, West Palm Beach

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6. Wetzel FT, Phillips FM, Tansey LP, North RB. The cost of spinal cord stimulation at six months. Midwest Pain Society, 21st Annual Scientific Meeting. April 1997, Chicago
7. Wetzel FT, Phillips FM, Tansey LP. Preliminary experience with open implantation of a dual octapolar lead system for spinal cord stimulation. Midwest Pain Society, 21st Annual Scientific Meeting. April 1997, Chicago
8. Phillips FM, Wetzel FT, Pokharna H. Alterations in collagen cross-linking in symptomatic degenerative disc disease. 10th Combined meeting of Orthopaedic Associations. February 1998, Auckland, New Zealand
9. Wetzel FT, Brustein M, Phillips FM, Trott S. Hardware failure in unconstrained lumbar pedicle screw system: A two-year follow-up study. North American Spine Society, 13th Annual Meeting. October 1998, San Francisco
10. Wetzel FT, McCracken L, Robbins RA, Lahey DA, Carnegie M, Phillips FM. Temporal stability of surgical MMPs in fusion patients: A poor prognosticator. North American Spine Society, 13th Annual Meeting. October 1998, San Francisco
11. Phillips FM, Tansey LP, Wetzel FT, Gonzales CM. Inpatient rehabilitation after lumbar spinal surgery: Is it effective? International Society for the Study of the Lumbar Spine. June 1999, Hawaii
12. Phillips FM, Reuben J. An experimental model of intervertebral disc degeneration adjacent to inter-transverse lumbar spine fusion. 46th Annual Meeting, Orthopaedic Research Society. March 2000, Orlando
13. Wetzel FT, Andersson GB, Lee C, Yuan H, Rashbaum R, Pelozo S, Phillips FM. Intradiscal electrothermal annuloplasty to treat discogenic low back pain: Preliminary results of a multi center prospective trial. International Society for the Study of the Lumbar Spine. April 2000, Adelaide, Australia.
14. Dudeney S, Lieberman IH, Phillips FM. Early experience with kyphoplasty in the treatment of painful osteoporotic vertebral compression fractures. World Congress on Osteoporosis 2000. Chicago, June 2000
15. Garfin SR, Lieberman IH, Reilly MA, Lane JM, Phillips FM. Early outcomes of the first 1471 consecutive kyphoplasty procedures in the United States for fixation of painful osteopenic vertebral body compression fractures. North American Spine Society, 15th Annual Meeting. October 2000, New Orleans.
16. Wetzel FT, Andersson GB, Lee C, Yuan H, Rashbaum R, Pelozo S, Phillips FM, An H. Intradiscal electrothermal annuloplasty to treat discogenic low back pain: Preliminary results of a multi-center prospective cohort study. North American Spine Society, 15th Annual Meeting. October 2000, New Orleans
17. Wetzel FT, Andersson GB, Lee C, Yuan H, Rashbaum R, Pelozo S, Phillips FM, An H. Intradiscal electrothermal annuloplasty to treat discogenic low back pain: Preliminary results of a multi-center prospective cohort study. 68th Annual AAOS Conference. March 2001, San Francisco
18. Patwardhan A, Caradang G, Ghanayem A, Voronov L, Phillips FM Effect of compressive preload on the response of ALIF cage construct and adjacent segments. Annual Meeting, Orthopaedic Research Society. February 2001, San Francisco
19. Phillips FM, McNally T. Early clinical and radiographic results of kyphoplasty for the treatment of osteopenic vertebral compression fractures. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland

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20. A Patwardhan, Caradang G, Ghanayem A, Voronov L, Phillips FM. Effect of compressive preload on the response of ALIF cage construct and adjacent segments. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
21. Lane J, Girardi F, Khan S, Parvatanemi H, Reiley M, Liebermann I, Garfin S, Phillips FM, Yuan H. Preliminary outcomes of the first 311 consecutive kyphoplasties for the fixation of painful osteoporotic vertebral compression fractures. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
22. Patel T, Vaccaro A, Fischgrund J, Herkowitz H, Hilibrand A, Albert T, Phillips FM, Truumees E. A pilot safety and efficacy study of OP-1 (rhBMP-7) as an adjunct to posterolateral lumbar fusion. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
23. Cunningham B, Phillips FM. Radiographic criteria for proper placement of translaminar facet screws. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
24. Garfin S, Yuan H, Lieberman I, Phillips FM. Early outcomes with kyphoplasty treatment for painful osteoporotic compression fractures. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
25. Phillips FM, Cunningham B, Patwardhan A et al.. Translaminar facet screws improve stability of threaded anterior lumbar interbody cage constructs. International Society for the Study of the Lumbar Spine. June 2001, Edinburgh, Scotland
26. Lane J, Liebermann I, Garfin S, Khan S, Phillips FM, Reiley M, Sachs B, Yuan H, Girardi F, Parvatanemi H,. Preliminary outcomes of the first 311 consecutive kyphoplasties for the fixation of painful osteoporotic vertebral compression fractures. American Orthopaedic Association, Annual Meeting, June 2001, Palm Beach.
27. Phillips FM, Falahee M, Wetzel T, Rabinowitz R, Gupta P. Lumbar interbody fusion comparing allograft bone dowels to threaded titanium cages – a prospective, randomized, multi-center study. EuroSpine, Gotenburg, Sweden, Sept. 2001
28. Phillips FM, McNally T, Liebermann I. Does kyphoplasty reduce potential for extra-vertebral and intra-vascular polymethylmethacrylate leakage when compared to vertebroplasty. EuroSpine, Gotenburg, Sweden, Sept. 2001
29. Phillips FM, Cunningham B, Patwardhan A et al.. Translaminar facet screws improve stability of threaded anterior lumbar interbody cage constructs. North American Spine Society, 16th Annual Meeting. 2001, Seattle.
30. Lee C, Wetzel FT, Andersson GB, Pelozo J, Rashbaum R, Yuan H, Phillips FM, An H. Two-year post treatment evaluation of pain levels and location of pain after IDET to treat discogenic low back pain. North American Spine Society, 16th Annual Meeting. 2001, Seattle.
31. A Patwardhan, Havey R, Gavin T, Phillips FM. An experimental model of adult-onset slip progression in isthmic spondylolisthesis. 69th Annual AAOS Conference. February 2001, Dallas
32. He TC, Haydon R, Paul R, Jiang W, Cheng H, Feng T, Phillips, F, Gupta P, Breyer B. Differential effects of human BMPs on osteoblastic differentiation. 48th Annual Orthopaedic Research Society Meeting, Feb. 2001, Dallas
33. Phillips FM, Ho E, Campbell-Hupp M, Kerr E, T, Wetzel F, Gupta P. Balloon kyphoplasty for the treatment of painful spinal deformity resulting from osteoporotic vertebral compression fractures. North American Spine Society, 17th Annual Meeting. 2002, Montreal

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34. Phillips FM, Kerr E, Campbell-Hupp M. Kyphoplasty combined with percutaneous osteotomy for the treatment of kyphosis associated with non-acute osteoporotic vertebral fractures. ISSLS Annual Meeting. Vancouver, 2003
35. Nenadovich N, Cheng H, Haydon R, He TC, Phillips FM. Sox9 gene therapy for the treatment of intervertebral disc degeneration. AOA, 116th Annual Meeting, 2003, Charleston.
36. Phillips FM, Cheng H, Jiang W, Breyer B, Haydon R, He TC. The Osteogenic Activity of BMPs: Implications in Bone Regeneration and Spine Fusion. AOA, 116th Annual Meeting, 2003, Charleston
37. Phillips FM, Kerr E, Wetzel Ft, Gupta P. Initial experience with percutaneously inserted pedicle screw-rod system following anterior lumbar arthrodesis. 10th International Meeting on Advanced Spine Techniques, May 2002, Rome, Italy
38. Phillips FM, Kerr E, Wetzel FT Gupta P. Initial experience with percutaneously inserted pedicle screw-rod system following anterior lumbar arthrodesis. World Spine II, Chicago 2003
39. DuToit DF, Phillips FM, Groen RJM, Hoogland PVJN, Grobbelaar M, Mattysen J, Muller CJF. Anatomical relevance of vertebral venous system (VVS) to cement augmentation of osteoporotic vertebral compression fractures. 33rd Anatomy Society of South Africa Conference, April 2003 Golden Gate, South Africa
40. Patel T, Vaccaro A, Truumees E, Fischgrund J, Herkowitz H, Albert T, Hillibrand A, Phillips FM, Wetzel T. Two-year follow-up on patients in a pilot safety and efficacy study of OP-1 in posterolateral fusion as a replacement for iliac crest autograft. Scoliosis Research Society Annual Meeting, Quebec City 2003
41. Phillips FM, Pierce A, Sulpizio BS, Mohr K, Turner S, Wheeler D. Osteoporotic vertebral body enhancement with OP-1 Treatment. Scoliosis Research Society Annual Meeting, Quebec City 2003
42. Phillips FM, Voronov, L, Gaitanis, I, Carandang, G, Havey, R, Patwardhan, A G. Biomechanics of posterior dynamic stabilizing device (DIAM) after facetectomy and discectomy. International Society for the Study of the Lumbar Spine. Porto, Portugal, 2004
43. Zang Y, Li Z, Im HJ, He TC, An HS, Song S, Thonar EJ, Andersson GBJ, Phillips FM. Stimulation of proteoglycan synthesis by nucleus pulposus cells co-cultured with articular chondrocytes transduced with Adviruses expressing BMPs. 5th Combined Meeting of the Orthopaedic Research Societies of the Canada, U.S.A., Japan and Europe. Banff, Canada 2004.
44. Zang Y, Phillips FM, Song S, Li Z, He TC, Thonar EJ, Andersson GBJ, An HS. BMPs-7 and -13 have different effects on proteoglycan accumulation by nucleus pulposus and annulus fibrosus. 5th Combined Meeting of the Orthopaedic Research Societies of the Canada, U.S.A., Japan and Europe. Banff, Canada 2004.
45. DuBois C, Bolt P, Todd A, Gupta P, Wetzel FT, Phillips FM. Static vs dynamic plating of multilevel anterior cervical discectomy and fusion does it matter? Cervical Spine Research Society. 2004 Boston
46. Singh K, Manning DW, Samartz D, Campbell Hupp M, Wetzel FT, Phillips FM. A Prospective, Randomized, Double Blind Study Of Local Anesthetic Infusion At The ICBG Site. 72nd Annual AAOS Conference. 2005, Washington DC
47. Zhang, Y., Phillips, FM., Im, H-J., Song; S., Li, Z., He, T-C., Thonar, EJ-MA., Andersson GBJ., and An, HS. Bone Morphogenetic Proteins-7 and -13 have Different Effects on Proteoglycan

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- Accumulation by Nucleus Pulposus and Annulus Fibrosus Cells. Orthopedic Research Society 51st Annual Meeting, 2005, Washington D.C.
48. Zhang, Y., An, HS., Phillips, FM., Thonar, E.J-M.A. Biological Treatment of Degenerative Disc Diseases: Gene Therapy Approaches. Poster presentation. 2005 Annual Meeting of the American Academy of Physical Medicine and Rehabilitation (AAPM&R), Philadelphia
 49. Zhang, Y., An, HS., He, T-C., Thonar, E.J-MA., Phillips, FM. Effects of Adenovirus Expressing Twelve Different Bone Morphogenetic Proteins on Proteoglycan Metabolism of the Intervertebral Disc. Poster presentation. *Annual Meeting of the American Academy of Physical Medicine and Rehabilitation (AAPM&R)*, Philadelphia
 50. K Singh, D Samartzis, G Andersson, T Yoon, A Nassr, F Phillips, E Goldberg, H An Congenital lumbar spinal stenosis: A prospective, controlled, matched cohort radiographic analyses. International Society for the Study of the Lumbar Spine. 2005, New York
 51. Y Zhang, Z Li, H An, H-J Im, T-C He, E Thonar, F Phillips. Effects of adenovirus expressing twelve different bone morphogenetic proteins on proteoglycan metabolism of the intervertebral disc . Society for the Study of the Lumbar Spine. 2005, New York
 52. Y Zhang, F Phillips, Z Li, T-C He, E Thonar, H An. Bone morphogenetic proteins-7 and – 13 have different effects on proteoglycan accumulation by nucleus pulposus and annulus fibrosus cells. Society for the Study of the Lumbar Spine. 2005, New York
 53. Singh K, Strom J, Samartzis D, Manning D, Hupp M, Wetzel FT, Gupta P, Phillips FM. A prospective, randomized, double blind study evaluating the efficacy of post-operative continuous local anesthetic infusion at the iliac crest bone graft site after spinal arthrodesis. North American Spine Society Annual Meeting. 2005. Philadelphia
 54. Diaz R, Phillips, FM, Pimenta L. Minimally invasive (XLIF) fusion in the treatment of symptomatic degenerative lumbar scoliosis. North American Spine Society Annual Meeting. 2005. Philadelphia
 55. Pimenta L, Phillips F, Diaz R, Vigna F, Bellera F, Da Silva Martins M. XLIF 90 degrees, minimally invasive surgical technique for the treatment of lumbar degenerative scoliosis in adults. Clinical and radiographic results in a 15-month follow up study. World Spine III, Rio de Janeiro, Brazil August 2005.
 56. Phillips FM, Voronov LI, Tzermiadianos M, Havey RV, Carandang G, Rosler DM, Ochoa J, Patwardhan AG. Kinematics of otal facet arthroplasty after complete laminectomy-foraminotomy. North American Spine Society Annual Meeting. Seattle, 2006
 57. Kim HH, Phillips FM, An HS, Im HJ. The action of bFGF in intervertebral disc chondrocytes. 53rd Annual Meeting Orthopaedic Research Society. February 2006, San Diego
 58. Ponnappan R, Zhang Y, Phillips FM. Transplantation of BMP-transduced chondrocytes to reverse intervertebral disc degeneration in rabbits. International Society for the Study of the Lumbar Spine Annual Meeting. Hong Kong, 2007.
 59. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. Comparison of clinical outcomes following PCM arthroplasty in patients with and without previous adjacent level ACDF surgery. Spine Arthroplasty Society Annual Meeting. Berlin. 2007
 60. Phillips FM. In vivo quantitative radiographic analysis of index and adjacent levels following PCM cervical disc replacement. Spine Arthroplasty Society Annual Meeting. Berlin. 2007
 61. Regan JJ, Phillips FM, Cappuccino A, DeVine JG, McAfee PC. Cervical arthroplasty for the

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- treatment of symptomatic cervical spondylosis: Initial outcomes from a prospective, randomized, multi-center study. North American Spine Society Annual Meeting. Austin, 2007.
62. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. A comparison of clinical outcomes in cervical arthroplasty patients with and without previous adjacent level ACDF surgery. North American Spine Society Annual Meeting. Austin, 2007.
 63. Lee M, Dumonski M, Phillips F, Voronov L, Renner S, Carandang G, Havey R, Patwardhan A. Disc Replacement Adjacent to Previous Cervical Fusion: A Biomechanical Comparison of Hybrid Construct vs. Two-Level Fusion. CSRS Annual Meeting, San Francisco, 2007.
 64. Phillips FM, Regan JJ, Cappuccino A, DeVine JG, McAfee PC. A prospective, randomized, multi-center study of cervical disc replacement: Comparison of training, randomized and ACDF outcomes. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 65. Phillips FM, Lin E, Reagan J. Correlation of in vivo radiographic motion analysis and clinical outcomes in cervical TDR. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 66. Singh K, Phillips FM, Kuo E, Campbell M, Samartzis D. A prospective, randomized, double blind study of the efficacy of post-operative continuous local anaesthetic infusion at the iliac crest bone graft site after posterior spinal fusion: Four-year follow-up. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 67. Phillips FM, Lin E. Comparison of index and adjacent level kinematics following cervical disc replacement versus fusion: In vivo radiographic analysis. Cervical Spine Research Society, 35th Annual Meeting, San Francisco, CA November 2007
 68. Lee M, Dumonski M, Phillips F, Voronov L, Renner S, Carandang G, Havey R, Patwardhan A. Disc Replacement adjacent to previous cervical fusion: A Biomechanical Comparison of Hybrid Construct vs. Two-Level Fusion. Orthopaedic Research Society, San Francisco, March 2008.
 69. Phillips FM, Gordon C, Sengupta D, Gimbel J. Subsidence resistance evaluation of posterior implanted TDR. Spine Arthroplasty Society 8th Annual Meeting, Miami. May, 2008
 70. PC McAfee, A Cappuccino, JG DeVine, FM. Phillips, MD, JJ. Regan, BW Cunningham, FH. Geisler, J Ahrens. Lower Incidence of Dysphagia with Cervical Arthroplasty compared to ACDF in a Prospective Randomized Clinical Trial. Spine Arthroplasty Society 8th Annual Meeting, Miami. May, 2008
 71. Dumonski M, Stanley T, Singh K, Phillips FM. Repeat arthrodesis with rhBMP-2 at an adjacent spinal level; An assessment of efficacy and immunologic response. International Society for the Study of the Lumbar Spine Annual Meeting. Geneva, Switzerland, May 2008.
 72. Phillips FM, Coric D, Hess H, Yue J, Wharton ND, Hipp JA. Rebalancing of the spine after total disc replacement. Cervical Spine Research Society, 36th Annual Meeting, Austin, TX. December 2008
 73. Rodgers WB, Tohmeh A, Hyde J, Phillips FM. A prospective, multicenter, nonrandomized evaluation of XLIF in the treatment of adult scoliosis. North American Spine Society Annual Meeting. San Francisco, 2009
 74. Rodgers WB, Tohmeh A, Hyde J, Phillips FM. A prospective, multicenter, nonrandomized evaluation of XLIF in the treatment of adult scoliosis: Mid-term radiographic outcomes. North American Spine Society Annual Meeting. San Francisco, 2009

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75. Hartjen C, Voronov L, Dimitriadis T, McIntosh B, Havey RM, Carandang G, Renner SM, Phillips FM, Patwardhan A. The effects of lumbar facet arthroplasty with the Arcadia facet replacement system on spinal kinematics. North American Spine Society Annual Meeting. San Francisco, 2009
76. Phillips FM, Voronov L, Dimitriadis T, Hartjen C, McIntosh B, Havey RM, Carandang G, Renner SM, Patwardhan A. Different grades of posterior element decompression alter intact lumbar kinematics. North American Spine Society Annual Meeting. San Francisco, 2009
77. Phillips GM. Minimally invasive treatment of adult scoliosis with XLIF. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
78. Smith WD, Phillips FM, Tohmeh AG, Rogers WB. Adult scoliosis treated by XLIF: Clinical results of a 24 month multi-center, prospective study. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
79. Singh K, Phillips FM, Pelton MA. A péri-operative cost and charge analysis following minimally-invasive vs. Open transforaminal lumbar interbody fusion. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
80. Phillips FM, Slosar PJ, Youssef JA, Andersson GB, Papatheofanis F. Clinical review of lumbar spine fusion for chronic low back pain due to dégénérate disc disease. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
81. Singh K, Phillips FM, Pelton MA. A comparison of open vs. MIS TLIF in a worker's compensation patient population. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
82. Badlani N, Pelton M, Foran JR, Singh K, Phillips FM, Allen RT. Patient perceptions of physician reimbursement for spine surgery. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
83. Phillips FM, Pelton M, Singh K. Epidemiologic trends in interspinous procès, pedicle based dynamic stabilization and facet replacement devices between 2007 and 2009. Society for Minimally Invasive Spine Surgery (SMISS) Annual Meeting. Miami, FL September 2012.
84. Phillips FM. Minimally invasive treatment of adult scoliosis with XLIF. A prospective, multicenter study. Society for Minimally Invasive Spine Surgery Annual Meeting. Miami, FL September 2012.
85. Phillips FM, Slosar PJ, Youssef JA, Andersson GB, Papatheofanis F. Clinical review of lumbar spine fusion for chronic low back pain due to dégénérate disc disease. North American Spine Society Annual Meeting. Dallas, 2012
86. Phillips FM, Geisler FH, Chaput C, Reah CJ, Gilder K, Howell KM, DeVine JG, McAfee PC. A Prospective, Randomized Clinical Investigation of the Porous Coated Motion (PCM) Artificial Cervical Disc: Radiographic Outcomes. North American Spine Society Annual Meeting. Dallas, 2012
87. Howell KM, Phillips FM, Geisler FH, Chaput C, Reah CJ, Gilder K, DeVine JG, McAfee PC. A Prospective, Randomized Clinical Investigation of the Porous Coated Motion (PCM) Artificial Cervical Disc: Two year results comparing outcomes of compensated and non-compensated patients. North American Spine Society Annual Meeting. Dallas, 2012
88. Havey R, Potluri T, Goodsitt J, Hannon S, Voronov L, McIntosh B, Zindrick M, Phillips FM, Tsitsopoulos PP, Patwardhan A. Does disc arthroplasty alter cervical facet engagement? A

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combinatorial approach using experimental data and a 3-D-CT model. Cervical Spine Research Society, 40th Annual Meeting, Chicago, IL. December 2012

INVITED LECTURES

1. Faculty Member, *Advanced Spine Course*
American Academy of Orthopaedic Surgery
Rosemont, IL November 1995
2. “Approach to cervical spine disorders “
Univ. of Chicago Primary Care Orthopaedics Course - a review of basic and current concepts
Chicago IL 1996; 1997; 1998; 1999; 2000; 2002
3. “Radiographic interpretation in the lumbar spine”
Grand Rounds, Schwab Rehabilitation Center
Chicago, IL February 1996
4. “Cervical spondylosis - Degenerative Cascade”
“Cervical spondylosis - Stabilization Phase”
North American Spine Society Instructional Course Syllabus, 1998
5. “Approach to metastatic disease of the spine”
Grand Rounds, LaGrange Hospital
Chicago, IL March 1998
6. Moderator, Lumbar-interbody fusion study-group (Sofamor Danek)
Chicago, IL March 1998
7. Faculty member, *Contemporary Issues in Advanced Spinal Surgery*
American Academy of Orthopaedic Surgery
Rosemont, IL November 1998
8. Moderator, *Management of the Failed Back Surgery Syndrome*
Instructional Course
American Academy of Orthopaedic Surgery - Annual Meeting
Anaheim February 1999
9. “Surgery in the Failed Back Surgery Syndrome”
Instructional Course: *American Academy of Orthopaedic Surgery*- Annual Meeting
Anaheim February 1999
10. Anterior lumbar inter-body fusion. Patient selection, post-operative managements and clinical results.

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- Current techniques in lumbo-sacral fixation (CME Course)*
Memphis June 1999
11. Post-surgical infections.
Current techniques in lumbo-sacral fixation - minimizing complications in spine surgery course (CME Course)
Memphis June 1999
 12. Program co-chairman, *Annual Chicago Spine Meeting*, July 1999
 13. Faculty member, *Practical Strategies in Spine Surgery: Current Applications and Techniques*
American Academy of Orthopaedic Surgery
Rosemont, IL August 1999
 14. Course Chairman, *Annual Combined Spine Fellow Course*
Miami. November 18-20, 1999
 15. "Management of multi-level cervical spondylosis"
Annual Combined Spine Fellow Course
Miami November 18-20, 1999
 16. Moderator, Management of the Failed Back Surgery Syndrome
Instructional Course, *American Academy of Orthopaedic Surgery - Annual Meeting*
New Orleans, March 2000
 17. "Surgery in the Failed Back Surgery Syndrome"
Instructional Course. *American Academy of Orthopaedic Surgery- Annual Meeting*
New Orleans, March 2000
 18. Course Chairman, *State of the Art in Spinal Fusion (CME Course)*
Whistler, British Columbia. February 2000
 19. "Indications for anterior-posterior cervical surgery"
State of the Art in Spinal Fusion (CME Course)
Whistler, British Columbia February 2000
 20. Treatment of osteoporotic spine fractures"
State of the Art in Spinal Fusion (CME Course)
Whistler, British Columbia February 2000
 21. Program co-chairman, *Annual Chicago Spine Meeting*, July 2000
 22. "Treatment of degenerative scoliosis"

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- Spinal Surgeon International Symposium (CME Course)*
Napa, CA September 2000
23. "Kyphoplasty surgical technique"
Symposium: *Advances in the treatment of osteoporotic vertebral compression fracture*
North American Spine Society, 15th Annual Meeting
October 2000, New Orleans
 24. Faculty member, *Current techniques in lumbo-sacral fixation (CME Course)*
Memphis November 2000
 25. Faculty member, *Practical Strategies in Spinal Surgery*
American Academy of Orthopaedic Surgery
Rosemont, IL November 2000
 26. Course Chairman, *Annual Combined Spine Fellow Course*
Naples. December, 2000
 27. The role of supplemental posterior fixation for anterior interbody fusion"
Annual Combined Spine Fellow Course
Naples. December, 2000
 28. *Controversies and Challenges in Spine Surgery (CME Course)*
"Repeat surgery after failed lumbar surgery"
"Anterior-posterior cervical reconstruction - Indications"
"Kyphoplasty to treat osteoporotic vertebral compression fractures"
"The role of supplemental posterior fixation for anterior interbody fusion"
Naples. December 2000
 29. Faculty member: *Ski with the Spine Annual Meeting (CME Course)*
"Management of subaxial cervical spine trauma"
Whistler, British Columbia January 2001
 30. Course Director, Management of the Failed Back Surgery Syndrome
Instructional Course. *American Academy of Orthopaedic Surgery - Annual Meeting*
San Francisco, March 2001
 31. "Surgery after failed decompressive lumbar surgery"
Instructional Course. *American Academy of Orthopaedic Surgery- Annual Meeting*
San Francisco, March 2001
 32. "Minimally invasive surgical treatments for osteoporotic vertebral compression fractures"

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- Osteoporosis: An update for clinicians. (CME Course)*
Chicago, March 20001
33. “Osteoporotic compression fractures”. *Management of Spinal Pathologies Course (CME Course)*
Key Largo, May 2001
34. Course Chairman, *Innovations, Challenges and Controversies in Spine Surgery (CME Course)*
Jackson Hole, Wyoming, July 2001.
35. Invited Guest Lecturer: *EuroSpine GICD (Annual Meeting of European Spine Society)*
“Minimally invasive surgery for osteoporotic spine fractures”
Gothenburg, Sweden, September 2001
36. Faculty member, *Advanced Techniques and Current Concepts in Spine Surgery*
American Academy of Orthopaedic Surgery
Rosemont, IL November 2001
37. Faculty member, *Current Techniques in Lumbosacral Fixation (CME Course)*
Phoenix, AZ, November 2001
38. “*Minimally invasive spine surgery*”
Symposium: The Osteoporotic Spine.
American Academy of Orthopaedic Surgery- Annual Meeting. Dallas, 2002
39. *Adenovirus mediated transfer of genes to human degenerative disc chondrocytes.*
Specialty Day Presentation: *American Academy of Orthopaedic Surgery- Annual Meeting.*
Dallas, 2002
40. *Revision of Failed Interbody Cages.*
Faculty Member: *Minimally Invasive Techniques in Spine Surgery*
American Academy of Orthopaedic Surgery
St Louis, April 2002
41. *Options for Osteopenic Vertebral Compression Fractures.*
13th Symposium: Current Management on Spinal Disorders. The Spine Study Group
West Pal Beach, FL, April 2002.
42. *Novel Allograft Fusion Options*
9th International Meeting on Advanced Spine Techniques.
Montreux, Switzerland, May 2002
43. *Occipito-cervical fixation*
6th Annual Advanced Techniques in Cervical Spine Decompression & Stabilization

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St Louis, June 2002

44. *Results of Vertebroplasty and Kyphoplasty.*
SICOT Meeting: Symposium: Spine Surgery for Osteoporosis
San Diego, August 2002
45. *Kirkaldy- Willis revisited*
Surgery for neck pain, radiculopathy, and myelopathy
Kyphoplasty for the treatment of vertebral compression fractures

Spine Care in the Elderly Course Surgery
American Academy of Orthopaedic Surgery
Chicago, October 2002
46. Course Chairman
Occipito-cervical Fusion
Minimally-invasive Fusion Techniques
Spine Surgery and Practice (CME Course), Snowbird, Utah March 2003
47. Faculty Member: *Minimally Invasive Techniques in Spine Surgery*
Revision of Failed Interbody Cages
Kyphoplasty Techniques
American Academy of Orthopaedic Surgery , St Louis, April 2003
48. Invited speaker - plenary session: *Canadian Orthopaedic Society*
Surgical treatment of osteoporotic spine fractures
Toronto, 2003
47. World Spine 2nd Congress, Chicago, 2003
Symposium Director
Contemporary vertebral augmentation procedures for the treatment of vertebral fractures.
Symposium faculty; “*Fracture and SCI - Future treatment* “
48. Invited Speaker, American College of Rheumatology, 3rd Annual State-of-the-Art Clinical
Symposium, 2003
Spine Issues for the Rheumatologist
49. *The role of neurophysiology in placement of percutaneous pedicular instrumentation.* 10th
International Meeting on Advanced Spine Techniques, Rome, Italy, May 2002
50. Symposium Chair, *Minimally Invasive Surgical Treatments of Spinal Pathologies : A Rational*
Approach. North American Spine Society Annual Meeting. San Diego, 2003

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51. *Minimal access posterior instrumented and interbody arthrodesis.* North American Spine Society Annual Meeting Symposium. San Diego, 2003
52. *Expanded indications for kyphoplasty.* 2nd Annual Emerging Technologies in Spine Surgery Conference. Washington, September 2003
53. *Clinical Experience with OP-1.* 2nd Annual Emerging Technologies in Spine Surgery Conference. Washington, September 2003
54. American Academy of Orthopaedic Surgery
Chicago, October 2002
Kirkaldy- Willis revisited
Surgery for neck pain, radiculopathy, and myelopathy
Kyphoplasty for the treatment of vertebral compression fractures
55. Faculty member, *Advanced Techniques and Current Concepts in Spine Surgery*,
Lecture: *Ankylosing Spondylitis*
AAOS, Rosemont, IL November 2003
56. Invited Speaker, *Clinical use of bone cements in vertebral fractures.*
ASTM Workshop. Tampa, FL, November 2003
57. Faculty member: *16th Annual Contemporary update on Disorders of the Spine Meeting (CME Course)*
"Management of osteoporotic spine fractures"
Whistler, British Columbia. January 2004
58. Faculty member: *Annual Current Concepts in Spinal Disorders*
"Which Interbody Devices"
"Vertebral Augmentation and Polymer Technology"
La Quinta CA February 2004
59. Faculty Member : *Spine Education Summit*
"Disc Degeneration : Biologic Strategies"
Vail, Colorado February 2004
60. Symposium Faculty, *Innovative Intervention for the Thoracic and Lumbar Spine.*
American Academy of Orthopaedic Surgery, Annual Meeting, San Francisco, 2004
61. Treatment of osteoporotic vertebral fracture
Primed Symposium (Sponsored: Harvard Systems), Fort Lauderdale April 2004

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62. Faculty, 15th Symposium: Current Management on Spinal Disorders. The Spine Study Group West Palm Beach, FL, April 2002
63. Symposium Chair: *Minimally invasive posterior fixation techniques. DIAM Biomechanics.*
11th International Meeting on Advanced Spine Techniques, Bermuda, July 2004
64. Course Chairman, Advanced Spinal Technique Workshop (CME Course)
Translaminar facet screw fixation
Bone Morphogenic proteins in spinal surgery
Chicago, IL July 2004
65. *Faculty, Lecturer: C1-2 fusion techniques*
10th Annual Advanced Techniques in Cervical Spine Decompression & Stabilization
St Louis, July 2004
66. Course Director, *Innovative Technologies in Spine*
Los Cabos, Mexico, 2004.

Lectures: DIAM Clinical Experience; Percutaneous spinal fixation techniques
67. *Occipito-Cervical Injuries.* 6th Annual Chicago Trauma Symposium (CME Course)
Chicago, IL, August 2004
68. *Minimally invasive posterior interbody fusion*
3rd Annual Emerging Technologies in Spine Surgery Conference. Washington, September 2004
69. New Perspectives in the Aging Spine, American Academy of Orthopaedic Surgery
San Diego, November 2004
Kirkaldy- Willis revisited
Surgery for neck pain and radiculopathy,
Kyphoplasty for the treatment of vertebral compression fractures
Biologics in Spine Surgery
70. Symposium Faculty, *Spine Surgery for Osteoporotic and Elderly Patients*
American Academy of Orthopaedic Surgery, Annual Meeting, Washington DC, 2005
71. Faculty member: *17th Annual Contemporary update on Disorders of the Spine Meeting (CME Course).* "Adult Kyphosis"
Whistler, British Columbia. 2005

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72. Faculty Member. Cervical Spine Surgery Course. North American Spine Society
C1-2 Instrumentation
Chicago 2005
73. *John McCulloch Memorial Guest Lecturer*, Denver Spine Winter Conference
Minimally-invasive lumbar fusion
Denver Feb 2005
74. Faculty member: Fourth *Annual Current Concepts in Spinal Disorders(CME Course)*
“Minimally-invasive posterior fixation - Update”;
“Alternative materials for vertebral enhancement” Lake Las Vegas, February 2005
75. Invited Guest Lecture: *Current state of the art in biologics for disc repair.*
18th Annual IITS Meeting, 2005 San Diego, California
76. Symposium Chair: *Fundamentals of Minimally Disruptive Fixation.*
12th International Meeting on Advanced Spine Techniques, Banff, July 2005
77. Symposium Chair: *Balloon Kyphoplasty*
12th International Meeting on Advanced Spine Techniques, Banff, July 2005
78. *Course Director, 2nd Annual meeting: Innovative Technologies in Spine*
“Kineflex Lumbar Total Disc Replacement”
“Total Facet Arthroplasty”
Los Cabos, Mexico, July 2005
79. Kyphoplasty technique. Symposium: *The spectrum of vertebral augmentation for osteoporotic and osteolytic compression fractures.*
World Spine III, Rio de Janeiro, Brazil August 2005
80. Facet joint arthroplasty. Symposium: *Posterior lumbar motion preservation devices.*
World Spine III, Rio de Janeiro, Brazil August 2005.
81. Symposium Chair: *Biologics in Spinal Surgery*
North American Spine Society Annual Meeting. 2005. Philadelphia
82. Symposium Lecture: *Cellular strategies for disc repair*
North American Spine Society Annual Meeting. 2005. Philadelphia
83. Faculty: Review and Update for Practicing Orthopaedic Surgeons.
Surgical Treatment of the Lumbar Spine.
Cervical Disorders
American Association of Orthopaedic Surgeons. Boston 2005

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84. Update on vertebral augmentation for osteoporotic spine fractures
Invited Lecturer: Arthritis Foundation: Chicago Chapter
January 2006
85. Emerging Technologies Spine Education Summit (*CME Course*)
OP-1 for fusion
Biologics of intervertebral disc repair
Dynamic posterior stabilization
Telluride, Colorado, January 2006
86. Fifth Annual Symposium on Current Concepts in Spinal Disorders. (*CME Course*)
DIAM
Total facet arthroplasty
Kineflex lumbar disc replacement
Las Vegas, February 2006
87. American Academy of Orthopaedic Surgeons. Annual Meeting.
Symposium:
Biologics in Lumbar Spine Fusion
Spine Surgery for Osteoporotic and Elderly Patients
Chicago 2006
88. Faculty, 17th Symposium: Current Management on Spinal Disorders. The Spine Study Group
PCM Cervical disc replacement
West Palm Beach, FL, April 2002
88. Biomaterials and Baby Boomers; Preclinical testing. US Food and Drug Administration.
Clinician perspective of cutting edge spinal technologies
Rockville, MD May 2006
89. Course Chairman, New Technologies in the Surgical Management of Cervical Spine Pathologies.
(*CME Course*)
Chicago, IL August 2006
90. *Course Director, 3rd Annual meeting: Innovative Technologies in Spine*
“XLIF minimally invasive fusion”
“Discus nucleus replacement”
Los Cabos, Mexico, June 2006
91. *Occipito-Cervical Injuries. 8th Annual Chicago Trauma Symposium (CME Course)*
Chicago, IL, July 2006

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92. *Course Chairman: New Technologies in the Surgical Management of Cervical Spine Pathologies.* Chicago, IL. September 2006 (*CME Course*)
93. *Course Co- Chairman: Complications in Spine Operations. "Complications of total disc replacement"* Chicago, IL. September 2006 (*CME Course*)
94. *Symposium Lecture: Cervical Disc Arthroplasty* North American Spine Society Annual Meeting. Seattle, 2006.
95. *Invited Guest Lecturer. American Association of Neuromuscular and Electrodiagnostic Medicine Annual Meeting "Minimally invasive spine surgery"* Washington DC, October 2006
96. *Faculty: Minimally Invasive Surgery of the Spine 2006 (CME Course)* San Diego. November 2006
97. *Course Director: Modern Technology in Spine Surgery. AAOS Annual Course (CME). Minimally Invasive Lumbar Fusion Occipito-cervical Fixation* Rosemont, IL. November 2006
98. *Visiting Professor: William Beaumont Hospital, Royal Oaks, MI Emerging Spinal technologies; A Perfect Storm* November 2006
99. *Faculty: Cervical Spine Research Society, 11th Instructional Course* Palm Beach, FL November 2006
100. *Faculty: Emerging Technologies Spine Education Summit (CME Course) Emerging Spinal Technologies* Telluride, Colorado, February 2007
101. *American Academy of Orthopaedic Surgeons. Annual Meeting. Instructional Course: Biologics in Lumbar Spine Fusion* San Diego, February 2007
102. *Faculty: Current Concepts in Emerging Technologies in Spine (CME Course) Dynamic cervical fixation Cervical Debate* Vail, Colorado, February 2007

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103. Sixth Annual Symposium on Current Concepts in Spinal Disorders. (*CME Course*)
Does fusion predispose to adjacent segment degeneration?
Nucleus Replacement
Las Vegas, March 2007
104. Extreme Lateral Approaches. *Minimally Invasive Spinal Surgery Pre-Course (CME Course)*
Spine Arthroplasty Society Annual Meeting, Berlin. 2007
105. *Course Director*, 4th Annual meeting: *Innovative Technologies in Spine*
Los Cabos, Mexico, June 2007
106. Faculty, *Minimally Invasive Surgical Solutions Symposium*
IMAST Annual Meeting, Bahamas. 2007
107. Keynote Speaker; 18th Annual Colorado Spine Symposium
New Spinal technologies
Update on Cervical Disc Replacement
Denver, September 2007
108. Faculty: Stem cells for fusion and disc degeneration. *Biologics for the treatment of spinal disorders Symposium*. North American Spine Society Annual Meeting. Austin, 2007.
109. *Course Director*: Contemporary Techniques in Spine Surgery. AAOS Annual Course (CME).
Minimally Invasive Lateral Approaches
Rosemont, IL. November 2007
110. Invited faculty Cervical Spine Research Society
Cervical Spondylosis – Role for foraminotomy
35th Annual Meeting, San Francisco, CA November 2007
111. 7th Annual Symposium on Current Concepts in Spinal Disorders. (*CME Course*)
Minimally invasive spinal surgery – Fad or Reality?
PCM Cervical disc replacement
Las Vegas, February 2008.
112. Faculty: Current Concepts in Emerging Technologies in Spine (*CME Course*)
Design considerations and Biomechanics of Lumbar Disc Replacement
Cervical TDR; Now and in Five years
Novel technologies: Who will pay for them?
Vail, Colorado, February 2008
113. Instructional Course Lecture: *BMP for spinal fusion: Clinical results*.
American Academy of Orthopaedic Surgery, Annual Meeting, San Francisco, 2008

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114. Specialty Day: Faculty: Debate: *Cervical foraminotomy*
American Academy of Orthopaedic Surgery, Annual Meeting, San Francisco, 2008
115. Invited Faculty: American Association of Neurologic Surgeons: *Minimally Invasive Spine Instructional Course*.
Chicago, April 2008
116. Course Director, *Minimally Invasive Spinal Surgery*. North American Spine Society. Burr-Ridge, IL June 2008.
117. *Course Director, 5th Annual meeting: Innovative Technologies in Spine*
Los Cabos, Mexico, June 2008
118. Faculty: Contemporary Techniques in Spine Surgery. AAOS Annual Course (CME).
Minimally Invasive Lateral Approaches Rosemont, IL. September, 2008.
119. Faculty: Biologics and Clinical Applications. *Lumbar interbody fusion*.
North American Spine Society Annual Meeting. Toronto, 2008.
120. Symposium: Update on Biologics and Basic Research
Biomechanics of TDR. Review of the current evidence.
North American Spine Society Annual Meeting. Toronto, 2008.
121. *Faculty: Society of Minimally Invasive Spine Surgery*
Annual Meeting
Las Vegas, 2008
122. 8th Annual Symposium on Current Concepts in Spinal Disorders. (CME Course)
Minimally invasive spinal surgery
PCM Cervical disc replacement
Las Vegas, January 2009.
123. Faculty: Emerging Technologies Spine Education Summit (CME Course)
Fate of the facets after TDR
Steamboat Springs, Colorado, February 2009
124. Instructional Course Lecture: *Minimally-Invasive Spine Surgery: Interbody Fusion*.
American Academy of Orthopaedic Surgery, Annual Meeting, Las Vegas, 2009
125. Preservation of Motion in the Spine. Annual meeting (CME Course)
Disc Replacement adjacent to fusion
Posterior disc replacement

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- Complications of disc replacement*
Ducks Key, Florida. April 2009
126. Cervical Disc Replacement Symposium
What will the future look like?
Spine Arthroplasty Society 9th Annual Meeting, London, UK. May, 2008.
127. Faculty, 20th Symposium: Pearls and Best practices to enhance your Practice. The Spine Study Group (CME Course)
Cervical disc replacement update
West Palm Beach, FL, May, 2009.
128. Invited Guest Lecturer. SINCOL (Brazilian Spine Society) Annual Meeting
Posterior TDR,
Update on cervical TDR
Update on clinical use of BMPs
Rio de Janeiro, Brazil, 2009
129. *Course Director, 6th Annual meeting: Innovative Technologies in Spine*
Scottsdale, Arizona, June 2009
130. *Faculty: Society of Minimally Invasive Spine Surgery, Annual Meeting*
Las Vegas, 2009
Defining value in spine care.
131. Faculty: Contemporary Techniques in Spine Surgery. AAOS Annual Course (CME).
ACDF vs TDR
Spine surgery in the elderly
Rosemont, IL. November, 2009.
132. Symposium: Defining value in cervical spine care.
Value assessment of new technologies.
Cervical Spine Research Society, 37th Annual Meeting, Salt Lake City 2009
132. Faculty: CSRS 14th Instructional Course.
The future of cervical TDR
Salt Lake City 2009
133. 8th Annual Symposium on Current Concepts in Spinal Disorders. (CME Course)
Complications of minimally invasive spine surgery.
Las Vegas, February 2010.

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134. Instructional Course Faculty. Lecture: *Minimally-Invasive Spine Surgery: Lateral Interbody Fusion*.
American Academy of Orthopaedic Surgery, Annual Meeting, New Orleans, 2010
135. Specialty Day: Faculty: *Future of cervical TDR*
American Academy of Orthopaedic Surgery, Annual Meeting, New Orleans, 2010
136. Co-Chair, International Society for Study of Lumbar Spine (ISSLS) *Instructional Course*
Defining value in spine care
Minimally invasive lumbar fusion
New concepts on biomechanics of motion preservation
Wine is salutary for the spine
Buenos Aires, Argentina, March 2010
137. Invited Keynote Speaker, 11th Annual South African Spine Society Congress
Use of BMPs in spinal surgery
Defining value in spine care
New concepts on biomechanics of motion preservation
Update on cervical disc replacement
Vertebral augmentation: Is there a role post-RCT?
Somerset West, South Africa, May 2010
138. Invited Faculty, 3rd Annual International Dubai Spine Masters: Minimally Invasive Course (NASS and SMISS)
Minimally invasive lumbar decompression
Minimally invasive lateral interbody fusion
Dubai, UAE, May 2010
139. *Course Director*, 7th Annual meeting: *Innovative Technologies in Spine Surgery*
Los Cabos, Mexico June 2010
140. Symposium: Motion Preservation
State of evidence for Cervical TDR
North American Spine Society Annual Meeting. Orlando, 2010
141. Faculty: Contemporary Techniques in Spine Surgery. AAOS Annual Course (CME).
Debate: ACDF vs Cervical TDR
Rosemont, IL. October 2010.
142. Invited Speaker: *Defining value for new technologies*
Society of Minimally Invasive Spine Surgery (SMISS) Annual Meeting Las Vegas, 2010

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143. Faculty: Evidence and Technology Spine Summit. 7th Annual Meeting (*CME Course*)
MIS decompression in degenerative spondylolisthesis
Spondylolysis: Evidence for pars repair
Park City, Utah, February 2011
144. Instructional Course Faculty. Lecture: *Minimally-Invasive Spine Surgery: Lateral Interbody Fusion*.
American Academy of Orthopaedic Surgery, Annual Meeting, San Diego, 2011
145. Instructional Course Faculty. Lecture: *Lumbar Spinal Stenosis: Scoliosis Treatment*.
American Academy of Orthopaedic Surgery, Annual Meeting, San Diego, 2011
146. Specialty Day: Faculty: *Defining value for novel spinal technologies*
American Academy of Orthopaedic Surgery, Annual Meeting, San Diego, 2011
147. Symposium: Can MIS techniques reduce the number of fusion levels for degenerative scoliosis?
, *International Society for Advanced Spinal Surgery* 11th Annual Meeting, Las Vegas. May, 2011
148. *Course Director*, 8th Annual meeting: *Innovative Technologies in Spine Surgery*
Los Cabos, Mexico June 2011
149. Invited Speaker: Defining Value in Spine Care.
San Diego City Wide Annual Spine Conference, San Diego. September 2011
150. Symposium: Motion Preservation. *Defining value of novel spine technologies*
Symposium: Young Spine Surgeon Forum. *Avoiding lawsuits*
North American Spine Society Annual Meeting. Chicago, 2011
151. Program Director, IEP Spine Fellows Course
Lecture : Lateral interbody Technique
South Beach, FL Nov. 2011
152. *Course Director*, 9th Annual meeting: *Innovative Technologies in Spine Surgery*
Carlsbad June 2012
153. Symposium: Options in cervical motion. *When is multilevel cervical disc replacement appropriate*. International Meeting on Advanced Spine Techniques (IMAST) 19th Annual Meeting. Istanbul, Turkey. July 2012
154. Symposium : Spondylolisthesis. *MIS latéral is best*. Society for Minimally Invasive Spine Surgery Annual Meeting. Miami, FL September 2012.

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155. Symposium: Motion Preservation: What is the evidence and what does the future hold. *Cervical TDR for multi-level spondylosis*.
North American Spine Society Annual Meeting. Dallas, 2012
156. Cervical Spine Research Society. Annual Instructional Course
Is cervical disc replacement cost-effective ?
CSRS Annual Meeting. Chicago 2012
157. Invited Speaker: *Current role and indications for interspinous spacers*
North American Spine Society Evidence and Technology Summit ; 9th Annual Meeting. Park City 2013
158. Ritchey Lecturer: UCSF Spine Symposium.
Minimally invasive spine surgery for the treatment of painful degenerative conditions and lumbar deformity. San Francisco. 2013
159. Invited Speaker : European Spine Fellows and Young Surgeon Course. *Minimally Invasive Lateral approaches. Anterior approach to cervical myelopathy*
Paris, France 2013
160. Symposium : Lateral Approaches. *Radiographic outcomes of lateral interbody fusion. Cervical Spine : Cervical disc replacement*
Society for Minimally Invasive Spine Surgery (SMISS) Annual Meeting. Los Vegas November 2013.

FUNDED RESEARCH ACTIVITIES

Effects of bFGF, TGF- β , IGF-I, and insulin on osteoarthritic human articular cartilage explants

Principle Investigator: Frank Phillips, MD

\$15 000. Orthopaedic Research and Education Foundation Resident Research Grant (1991)

A prospective, randomized, multi-institutional study comparing pedicle screw fixation to threaded interbody cages in the management of degenerative spondylolisthesis

Principle Investigator: Frank Phillips, MD

\$27 000. Surgical Dynamics (1996)

The biology of intervertebral disc degeneration adjacent to lumbar fusion in a rabbit model

Principle Investigator: Frank Phillips, MD

\$25 000. The University of Chicago, Dept. of Surgery Research Grant (1998)

Use of gene therapy to treat intervertebral disc degeneration.

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Principle Investigator: Frank Phillips, MD
\$25 000. The University of Chicago, Dept. of Surgery Research Grant (2002)

Sox9-mediated Gene Therapy in a Degenerative Disc Model
Principle Investigator: Frank Phillips, MD
\$50 000. North American Spine Society Research Grant (2002/03)

BMP-transduced Mesenchymal Stem Cells for Spine Fusion
Collaborator: Frank Phillips, MD
\$50 000. North American Spine Society Research Grant (2002/03)

Biomechanics of Cement Augmentation for Osteoporotic Vertebral Fractures.
Co-Investigator: Frank Phillips
\$600 000 Department of Veterans Affairs, Grant #A3173R (2003)

The role of the spinal cord in modulating discogenic low-back-pain. ,
Co-Investigator: Frank Phillips
\$100,000 Rush University Special Funding Award on Spinal Cord Research (2003/4)

The role of cytokines in discogenic low-back-pain.
Co-Investigator: Frank Phillips
\$100,000, Stryker Biotech, Inc. 2004-2005

The role of the endplate fracture in the pathogenesis of intervertebral disc degeneration.
Co-Investigator: Frank Phillips
\$50,000, Zimmer Spine (2005)

Cell Based Gene Therapy to Promote Regeneration of the Intervertebral Disc in the Rabbit
Co-Principal Investigator
\$30 000 Cervical Spine Research Society (2006)

Biomechanics of Total Disc Replacement for the Cervical Spine
Role: Co-Investigator
Granting Agency: *Department of Veterans Affairs*
\$925,000/4 years: 2010-2014

Spinal Value Council.
Co-Principal Investigator
\$48 000 Orthopaedic Research and Education Foundation Research Grant Scientific Forum/Spine Care Grant (2011)

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