

Vikas V. Patel MA, MD

Personal history or biographical sketch

Assistant Professor, Chief of Orthopaedic Spine Surgery, Department of Orthopaedic Surgery; 12631 E. 17th Ave, Academic Office 1, Room 4602, Denver CO 80045
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Education

The Spine Institute at St. John's Hospital, Santa Monica, California
Spine Surgery Fellowship, Rick Delamarter, Hyun Bae, August 2003-July 2004
University of California, San Francisco Department of Orthopaedic Surgery
Internship, General Surgery 1997-1998
Residency, Orthopaedic Surgery 1998-Present
Washington University School of Medicine, St. Louis Missouri
Masters in Biomedical Sciences 1997
Doctor of Medicine 1992-1997
University of Illinois, Champaign-Urbana Illinois
Bachelor of Science, Mechanical Engineering 1987-1991
Technical University of Munich, Munich, Germany
Engineering 1989-1990

Academic appointments

Assistant Professor, Chief of Orthopaedic Spine Surgery, Department of Orthopaedic Surgery
Faculty: AO North America

Hospital, government or other professional positions

University of Colorado Health Sciences, Chief of Orthopaedic Spine Surgery
Consultant – Synthes : Cervical spine fusion product development.
Consultant – Biomet Spine : Lumbar spine fusion product development.
Consultant – Cerapedics: Biologic spine fusion product development.
Consultant – Innovasis: Minimally invasive interspinous spacer development
Engineer: Baxter Healthcare Renal Division, Chicago Illinois 1991-1992
New Product Development
Robotic Production Equipment Design

Honors, special recognitions and awards

John H. Moe - Best Basic Science Award, Scoliosis Research Society 2004
AAOS Basic Educator's Course Scholarship 2002
The Dames Prize for Cell Biology
Master's in Biomedical Science Scholarship and Stipend, Washington University
Bone and Joint Decade Young Investigator's Recipient

Membership in professional organizations

North American Spine Society
American Academy of Orthopaedic Surgery
Colorado Medical Society
Scoliosis Research Society
Western Orthopaedic Association
AO North America

Licensure and board certification

Medical License, Colorado, active: 2004-Present. California, active: 1998-2004, retired 2004-present

Board Certification: American Board of Orthopedic Surgeons 2006-present

Inventions, intellectual property and patents held or pending

Cervical Cage-fixation device – pending

Minimally Invasive Interspinous Spacer – pending

Editor, Review and Referee work

Reviewer: Spine

Reviewer: Orthopedics

Reviewer: Clinical Orthopedics and Related Research

Editorial Board: Orthopedics

Grant Reviewer: National Medical Research Council, Singapore

Program Reviewer: Medical Education Resources

Invited extramural lectures, presentations and visiting professorships

Physical Therapy Core Curriculum Lecture Oct 2004

Physical Medicine and Rehabilitation Core Curriculum Lecture Dec. 2004

Neurosurgery Core Curriculum Lecture – Biologics Oct. 2006

AO OR Personnel Course – Spine Surgery May 21-22, 2005: Anterior Lumbar Plating

Synthes Resident and Fellows Course – Cervical Spine Trauma Oct 15-16, 2005:

Biomechanics of Cervical Spine Trauma

Synthes Resident and Fellows Course – Degenerative Lumbar Spine May 15-16, 2005:

Biomechanics of Cervical Spine Trauma

University of Colorado Grand Rounds: Artificial Disc Replacement

Colorado State University, Dept. Mechanical Engineering Nov. 2005: Spine

Biomechanics

Colorado Spine Symposium, 16th Annual: Biomechanical Evaluation of Floating and

Fixed Center of Rotation Total Disc Replacements: Facet Joint Loads Nov 2005

Colorado Family Medicine Review Course Nov. 4, 2005: Minimally Invasive Spine

Surgery

Fall Orthopaedic Summit – Section Director: Minimally Invasive Surgery; September 15-

17, 2005: Minimally Invasive Spine Surgery

16th Annual Colorado Spine Symposium Nov. 4, 2005: Biomechanics of Artificial Disc

Replacement

Radiology Technologist's Review 2005

Colorado Family Practice Review Nov. 2005 New Spine Technology for Primary Care

Colorado Family Practice Review May. 2005 New Spine Technology for Primary

Care

Geriatric Medicine Grand Rounds Oct. 2006

Colorado State University, Dept. Mechanical Engineering Nov., 2006: Spine

Biomechanics

Treating the Aging Spine, Resident Course March 2007

Colorado Spine Symposium, 18th Annual: Trans-1 Screw Fixation Sept 2007

North American Spine Society: Section on Spine Biologics and Research: Biologics for

the Treatment of Spinal Disorders, Oct 2007

AO North America National Resident's Spine Course Nov 2007

AAOS Maintenance of Certification Course Nov 2007

Teaching record

- Orthopedic Resident Core Curriculum Spine Section Director 2004 - Present
Orthopedic Resident Spine Surgery Clinical Education Section Director: 2004-Present:
Supervision, bedside teaching, outpatient clinic teaching, surgical teaching 24
hours/week.
Orthopedic Resident Spine Trauma Course Director and Lecturer for weekly lectures:
Aug-Nov 2005
Monthly Spine Journal Club, co-organizer.
Physical Medicine and Rehabilitation Resident Elective Clinical Instructor: 2 week
blocks of clinical and surgical teaching twice / year
Rheumatology Fellow Elective Clinical Instructor: 6 week block 2006.
Primary Care Physician CME Accredited Evening Lecture Series: Developed, directed,
and administered monthly lecture series for the 12 months of 2005.
Primary Care Physician CME Accredited Webcast Lecture Series: Developed, directed,
and administered monthly lecture series via interactive web based format allowing
access from anywhere in world. Jan 2006 – Present.
Posterior Cervical Fixation, Director, cadaver workshop March 2005
Mentored 2 resident projects, 1 medical student, 1 engineering student
Compiled and Developed patient education packets for pre-surgery teaching
Medical School Orthopedics 6620 class lecturer, 2005, 2006, 2007, 2008
- Trainees and mentees may be listed here; however, it is preferable to list them, with a
summary of their accomplishments, in your teacher's portfolio

Grant support

- NSF I/UCRC planning grant – Applied
Aesculap Spine: Facet Force Adjacent Spine Fusion
Synthes Spine: Facet Force with Disc Degeneration and Replacement
Medtronic Sofamor-Danek: rh-BMP2 Related Inflammation in a Rabbit Model
Orthofix: Bone Stimulator Clinical Trial Phase I
Orthofix: Bone Stimulator Clinical Trial Phase II
Show-Ika: Metal Memory
Show-Ika: Facet Force

Bibliography

Peer Reviewed Journal Articles

Submitted Articles

1. Vikas V. Patel, Susan Estes, Eric Naar, Evalina Burger: “Intraoperative Collection of
Bone Shavings: Evaluation of use as Local Autograft” submitted to Neurosurgery Jan
2007.
2. Vikas V. Patel, Susan Estes, Evalina Burger: “The Financial Implications of Lumbar Disc
Replacement vs. Fusion” submitted to Spine Dec 2006.

3. BB Pradhan, MD MSE; HW Bae, MD; MA Kropf, MD; VV Patel, MD; RB Delamarter, MD “Radiographic Characterization and Outcomes of Anterior Cervical Discectomy and Fusion using Allograft, rhBMP-2, and Plate” Submitted for publication in Spine
4. V. Deviren, V. Patel, S. Berven, S. Hu, D. Bradford, “Anterior Instrumentation for Thorocolumbar Scoliosis: Adult vs. Adolescent” Submitted to Spine
5. BB Pradhan MD MSE, VV Patel MD, HW Bae MD, MA Kropf, RB Delamarter MD “Lumbar Disc Degeneration in Women and Advances in Management – Total Disc Replacement” Submitted for publication in: WOMEN’S HEALTH, Orthopaedic Edition

Accepted Articles

1. Vikas V. Patel, Anthony Dwyer, Susan Estes, Evalina Burger: “Use of Intraoperative Multiplanar Imaging and Myelography for Immediate Evaluation of Lumbar Spinal Decompression” Accepted, Journal of Spinal Disorders and Techniques, in press.

Published Articles

1. Burger EL, Patel V. Calcium phosphates as bone graft extenders Orthopedics. 2007 Nov;30(11):939-42.
- 2.
3. V. Patel, Li Zhao, P. Wong, H. Bae, B. Pradhan, R. Delamarter, “Controlling BMP Diffusion and BMP-Stimulated Bone Growth Using Fibrin Glue” Spine. 2006 May 15;31(11):1201-6.
4. V. Patel, Li Zhao, P. Wong, H. Bae, B. Pradhan, R. Delamarter “An In-Vitro and In-Vivo Analysis of Fibrin Glue Used to Control BMP Diffusion and BMP-Stimulated Bone Growth” The Spine Journal 2006 V6397-404.
5. Patel VV, Andrews C, Pradhan BB, Bae HW, Kanim LE, Kropf MA, Delamarter RB.”Computed tomography assessment of the accuracy of in vivo placement of artificial discs in the lumbar spine including radiographic and clinical consequences” Spine. 2006 Apr 15;31(8):948-53.
6. Peter Le, Moshe Solomonow, Bing-He Zhou, Yun Lu, Vikas Patel. “Cyclic Load Magnitude is a Risk Factor for a Cumulative Lower Back Disorder” Journal of Occupational and Environmental Medicine V49, N4, April 2007 pp375-87
7. Heather Hoops, Bing-He Zhou, Yun Lu, Moshe Solomonow, Vikas Patel. “Short rest between cyclic flexion periods is a risk factor for a lumbar disorder” Clinical Biomechanics
8. Pradhan BB, Bae HW, Dawson EG, Patel VV, Delamarter RB. “Graft resorption with the use of bone morphogenetic protein: lessons from anterior lumbar interbody fusion using femoral ring allografts and recombinant human bone morphogenetic protein-2” Spine. 2006 May 1;31(10):E277-84.

9. Ben B. Pradhan, MD, MSE, Hyun W. Bae, MD, Vikas V. Patel, MA, MD, Rick B. Delamarter, MD, "Graft Resorption with rhBMP-2: in Anterior Cervical Discectomy and Fusion: A Radiographic Characterization of the Effect of rhBMP-2 on Structural Allografts" *SpineLine* V 7 N2 P25 March/April 2006.
10. Pradhan BB, Bae HW, Kropf MA, Patel V, Delamarter RB "Graft resorption with rhBMP-2 in anterior cervical discectomy and fusion: a radiographic characterization of the effect of rhBMP-2 on structural allografts" *The Spine Journal* July 2005 (Vol. 5, Issue 4 (Supplement), Pages S42-S43)
11. Pradhan BB, Bae HW, Kropf MA, Patel VV, Zhao L, Wong P, Delamarter RB "Leakage of rhBMP-2 from absorbable collagen sponges during use in anterior cervical discectomy and fusion quantification and follow-up of clinical and radiographic consequences" *The Spine Journal* July 2005 (Vol. 5, Issue 4 (Supplement), Page S55)
12. Pradhan BB, Bae HW, Kropf MA, Patel VV, Delamarter RB. "Kyphoplasty reduction of osteoporotic vertebral compression fractures: correction of local kyphosis versus overall sagittal alignment" *Spine*. 2006 Feb 15;31(4):435-41
13. Nobhojit Roy, Hemant Shah, Vikas Patel, Hemant Bagalkote "Surgical and psychosocial outcomes in the rural injured—a follow-up study of the 2001 earthquake victims" *Injury, International Journal of the Care of the Injured*, 2005
14. Patel VV, Hall K, Ries M, Lotz J, Ozhinsky E, Lindsey C, Lu Y, Majumdar S. "A three-dimensional MRI analysis of knee kinematics" *J Orthop Res*. 2004 Mar;22(2):283-92
15. Patel VV, Hall K, Ries M, Lindsey C, Ozhinsky E, Lu Y, Majumdar S., "Magnetic resonance imaging of patellofemoral kinematics with weight-bearing" *J Bone Joint Surg Am*. 2003 Dec;85-A(12):2419-24.
16. N. Roy, H. Shah, V. Patel, R. Coughlin, "The Gujarat Earthquake (2001) Experience in a Seismically Unprepared Area: Community Hospital Medical Response" *Prehospital and Disaster Medicine*, 2003 Oct-Dec; 17(4), 186-195.
17. Patel V, Issever AS, Burghardt A, Laib A, Ries M, Majumdar S, "MicroCT evaluation of normal and osteoarthritic bone structure in human knee specimens. *J Orthop Res*. 2003 Jan;21(1):6-13.
18. Issever, A. Burghardt, V. Patel, A. Laib, Y. Lu, M. Ries, , S. Majumdar, "A micro-computed tomography study of the trabecular bone structure in the femoral head" *J Musculoskel Neuron Interact* 2003; 3(2):176-184
19. Tay, V. Patel, D. Bradford, "Calcium Sulfate – and Calcium Phosphate – Based Bone Substitutes: Mimicry of the Mineral Phase of Bone: *Orthopaedic Clinics of North America*, Vol. 30, No. 4, Oct. 1999, pp615-623.
20. V. Patel, F. Heidenreich Jr, R. Bindra, K. Yamaguchi, R. Gelberman "Morphologic changes in the ulnar nerve at the elbow with flexion and extension: a magnetic resonance

- imaging study with 3-dimensional reconstruction.” *Journal of Shoulder and Elbow Surgery*, Vol. 7, No. 4, Jul-Aug 1998, pp368-74
21. V. Patel, M. Vannier, J. Marsh, L. Lo, “Assessing Craniofacial Surgical Simulation,” *IEEE Computer Graphics and Applications*, Vol. 16, No. 1, Feb. 1996, pp46-54.
 22. L. Lo, J. Marsh, M. Vannier, V. Patel, “Craniofacial Computer Assisted Surgical Planning and Simulation,” *Clinics in Plastic Surgery*, Vol. 21, No. 4, Oct 1994. pp501-516.
 23. V. Patel, M. Vannier, Book Review: A Guide to Radiological Procedures by S. Chapman and R. Nakielny, 3rd ed., Bailliere Tindall Press, London 1993. In *Dentomaxillofacial Radiology*, Vol. 24, No. 1, Feb. 1995, p.12.

Invited Articles

1. V.Patel “P-15: A Biomimetic Bone Graft Substitute” *InSpine V3 Issue 2*, Feb 2007 pp8-11.

Editorials

1. Vikas V. Patel: “Interpreting Research” in *Orthopedics*, V 30, No 10, Oct 2007, p 813
2. Craig Rabb, Vikas Patel, Evalina Burger “Spine Surgical Fellowship Education”, *SpineLine*, in press

Letters to the Editor

1. Vikas V. Patel Response to Commentary: *The Spine Journal* Volume 7, Issue 2 , March-April 2007, Page 259.

Book Chapters

1. Rick B. Delamarter, Ben B. Pradhan and Vikas V. Patel: “Cervical Pseudarthrosis” In *Complications Of Spine Surgery : Treatment And Prevention* edited by Howard S. An, Louis G. Jenis, Philadelphia: Lippincott Williams & Wilkins, c2006
2. Vikas V. Patel, Fran Faro, Anthony Dwyer: “Kyphoplasty” in *Pain Management in Interventional Radiology* ed. By Charles E. Ray, Cambridge University Press. In press.
3. Anthony Dwyer, Vikas V. Patel, Kurt Freudenberger: “Clinical Evaluation of Low Back Pain” in *Pain Management in Interventional Radiology* ed. By Charles E. Ray, Cambridge University Press. In press.
4. Vikas V. Patel, Hector Mejia, : “Lumbar radiculopathy” *Nerve and Vascular Injuries in Sports Medicine*, edited by Venu Akuthota and Stan Herring, in process.

Books

Patel, VV, Brown, C, Burger, E: “Spine Trauma Surgical Techniques” in process.

Scientific Abstracts, Competitive

1. CM Puttlitz, K McGilvray, A Lyons, U Ayturk, AS Turner, V Patel. "Acute biomechanical implications of two-level cervical disc replacement and associated salvage procedure." 7th Annual Meeting of the Spine Arthroplasty Society, Berlin, May 1-4, 2007.
2. McGilvray, Amy Lyons, AS Turner, V Patel, C Puttlitz. "Kinetic and biomechanical testing of two-level cervical disc replacement." 2007 ASME Summer Bioengineering Conference, Keystone, CO, June 20-24, 2007
3. CM Puttlitz, K McGilvray, A Lyons, U Ayturk, AS Turner, V Patel. "Biomechanical implications of adjacent level cervical disc replacement and associated salvage procedures." 14th International Meeting on Advanced Spine Techniques (IMAST), Paradise Island, Bahamas, July 11-14, 2007.
4. CM Puttlitz, K McGilvray, AS Lyons, BG Santoni, V Patel, AS Turner. "Kinetic implications of replacement of a cervical intervertebral disc at adjacent levels and associated salvage procedure." 54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 2-5, 2008
5. Vikas V. Patel, Rick Sasso, Jim Benedict: "Novel Cell-Binding Peptide As A Bone Graft Substitute" North American Spine Society Annual Meeting 2007
6. Vikas V. Patel , Jim Benedict, Simon Turner, William Seim: "Lumbar Spine Fusion In An Ovine Model Comparing P-15/Bgs To Autogenous Bone" North American Spine Society Annual Meeting 2007
7. Vikas V. Patel, Susan Estes, Evalina Burger: "The Financial Implications of Lumbar Disc Replacement vs. Fusion" North American Spine Society Annual Meeting 2007
8. Evalina Burger, Vikas V. Patel "Metal Memory" North American Spine Society Annual Meeting 2007
9. Vikas V. Patel, Rick Sasso, Jim Benedict: "Novel Cell-Binding Peptide As A Bone Graft Substitute" Scoliosis Research Society International Meeting on Advanced Spinal Techniques 2007
10. Vikas V. Patel , Jim Benedict, Simon Turner, William Seim: "Lumbar Spine Fusion In An Ovine Model Comparing P-15/Bgs To Autogenous Bone" Scoliosis Research Society International Meeting on Advanced Spinal Techniques 2007
11. Vikas V. Patel, Susan Estes, Evalina Burger: "The Financial Implications of Lumbar Disc Replacement vs. Fusion" Scoliosis Research Society International Meeting on Advanced Spinal Techniques 2007
12. Vikas V. Patel: "Novel Cell-Binding Peptide As A Bone Graft Substitute" Annual Meeting Orthopaedic Research Society, San Diego, CA, February 2007

13. Vikas V. Patel , Jim Benedict, Simon Turner, William Seim: “Lumbar Spine Fusion In An Ovine Model Comparing P-15/Bgs To Autogenous Bone” Annual Meeting Orthopaedic Research Society, San Diego, CA, February 2007
14. Vikas V. Patel: “Novel Cell-Binding Peptide As A Bone Graft Substitute” Annual Meeting American Academy of Orthopaedic Surgeons, San Diego, CA, February 2007
15. Vikas V. Patel, Susan Estes: “Use of Intraoperative Multiplanar Imaging and Myelography for Immediate Evaluation of Lumbar Spinal Decompression” International Meeting on Advanced Spinal Concepts, Athens Greece, July 2006
16. Vikas V. Patel, Curt Freudenberger, C. Carleton Reckling, Doug Beard: “Lumbar Fusion: Anterior Plating vs Posterior Instrumentation” Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 11-15 2006.
17. Vikas V. Patel, Susan Estes: “Intraoperative C-Arm Based Multiplanar Myelography” Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 11-15 2006.
18. Vikas V. Patel, MA, MD, Ben B. Pradhan, MD, MSE, Li Zhao, MD, PhD, Pamela Wong, BS, Hyun W. Bae, MD, Rick B. Delamarter, MD, “Controlling Bone Morphogenetic Protein Stimulated Bone Growth with Fibrin Glue (A Biologic Sealant)” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
19. Vikas Patel, MD,; Stephanie Hsu, MD; Hyun Bae, MD,; Ben Pradhan, MD, MSE, Tom Hedman,; Rick Delamarter, MD “Biomechanical Evaluation of Floating and Fixed Center of Rotation Total Disc Replacements” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
20. Vikas V. Patel, MA, MD, Ben Pradhan, MD, MSE, Hyun W. Bae, MD, Carol Andrews, MD, L. E. A. Kanim, MS, Rick B. Delamarter, MD “Computed Tomography Evaluation of Positioning of Artificial Discs, Along with Its Radiographic and Clinical Relevance” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
21. Puttlitz C. M., McGilvray, K., Lyons, A., Ayturk, U. Turner, S., Patel, V. “Acute Biomechanical Implications of Two-Level Cervical Disc Replacement and Associated Salvage Procedure. Spine Arthroplasty Society Annual Meeting 2007
22. Ben B. Pradhan, MD, MSE, Hyun W. Bae, MD, Michael A. Kropf, MD, Vikas V. Patel, MA, MD, Li Zhao, MD, PhD, Pamela Wong, BS, Rick B. Delamarter, MD “Leakage of BMP from Absorbable Collagen Sponges during ACDF: Quantification and Radiographic Analysis for Ectopic Bone Formation in Canal” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
23. Ben B. Pradhan, MD, MSE, Brian Rudin, MD, Hyun W. Bae, MD, L.E.A. Kanim, MS, Evish Kamrava, MS, Vikas V. Patel, MA, MD, Rick B. Delamarter, MD “Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
24. Ben B. Pradhan, MD, MSE, Hyun W. Bae, MD, Vikas V. Patel, MA, MD, Edgar G. Dawson, MD, Rick B. Delamarter, MD, “Graft Resorption with Recombinant Human

- Bone Morphogenetic Protein-2: Lessons from Anterior Lumbar Interbody Fusion Using Stand-Alone Femoral Ring Allografts” Proceedings of the World Spine Society Annual Meeting Rio de Janeiro Brazil, Aug. 2005
25. Vikas Patel, MD.; Stephanie Hsu, MD; Hyun Bae, MD.; Ben Pradhan, MD, MSE, Tom Hedman.; Rick Delamarter, MD “Biomechanical Evaluation of Floating and Fixed Center of Rotation Total Disc Replacements” International Meeting on Advanced Spinal Techniques, Banff Canada 2005
 26. Vikas. Patel,MD, Todd Baldini MA, Ben Pradhan MD, Joel Bach PhD “Size Does Matter: Facet Joint Loads Relative to Pedicle Screw Head Size” International Meeting on Advanced Spinal Techniques, Banff Canada 2005.
 27. Vikas V. Patel, MA, MD, Ben B. Pradhan, MD, MSE, Li Zhao, MD, PhD, Pamela Wong, BS, Hyun W. Bae, MD, Rick B. Delamarter, MD, “Controlling Bone Morphogenetic Protein Stimulated Bone Growth with Fibrin Glue” Proceedings of the International Society of Study of the Lumbar Spine Annual Meeting, New York, NY, Feb. 2005
 28. Vikas V. Patel, MA, MD, Ben B. Pradhan, MD, MSE, Li Zhao, MD, PhD, Pamela Wong, BS, Hyun W. Bae, MD, Rick B. Delamarter, MD, “Controlling Bone Morphogenetic Protein Stimulated Bone Growth with Fibrin Glue” North American Spine Society Annual Meeting, Chicago, IL, Nov 2004
 29. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD. „Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts?” North American Spine Society Annual Meeting, Chicago, IL, Nov 2004
 30. Vikas V. Patel, MA, MD, Ben B. Pradhan, MD, MSE, Li Zhao, MD, PhD, Pamela Wong, BS, Hyun W. Bae, MD, Rick B. Delamarter, MD, “Controlling Bone Morphogenetic Protein Stimulated Bone Growth with Fibrin Glue” Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004
 31. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004
 32. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004.
 33. V. Patel, B. Pradhan, H. Bae, R. Delamarter , “Cervical Spine Motion After Disc Replacement”, Proceedings of The 11th International Meeting on Advanced Spine Techniques July 1-3, 2004 Southampton, Bermuda
 34. V. Patel, Li Zhao, B. Pradhan, H. Bae, R. Delamarter, “Controlling BMP-stimulated Bone Growth using Fibrin Glue, Proceedings of The 11th International Meeting on Advanced Spine Techniques July 1-3, 2004 Southampton, Bermuda

35. V. Patel, C. Andrews, L. Kanim, B. Pradhan, M. Kropf, H. Bae, R. Delamarter, "Computed Tomography Evaluation of Intervertebral Prosthesis " Proceedings of The 11th International Meeting on Advanced Spine Techniques July 1-3, 2004 Southampton, Bermuda
36. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004.
37. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004.
38. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment. International Society for Surgery of the Lumbar Spine, Porto, Portugal, Jun 2004.
39. V. Patel, C. Andrews, R. Delamarter, L. Kanim, B. Pradhan, M. Kropf, H. Bae "Intervertebral Prosthesis Position Evaluated by Computed Tomography: Relevance to Clinical Outcome" Proceedings of the Spine Arthroplasty Society Summit 4, Vienna Austria, May 2004.
40. V. Patel, J. Welcher, H. Bae, R. Delamarter, B. Pradhan, T. Hedman, "Floating and Fixed Center of Rotation Intervertebral Prostheses: Biomechanical Comparison" Proceedings of the Spine Arthroplasty Society Summit 4, Vienna Austria, May 2004.
41. B. Pradhan, V. Patel, H. Bae, R. Delamarter, "The Effect of Kyphoplasty on Lumbar Spinal Alignment" International Society for Study of the Lumbar Spine, 31ST Annual Meeting Porto Portugal, May 2004
42. Patel V, Hall K, Ries M, Colman W, Ozhinsky E, Majumdar S. Non-invasive, weight bearing MRI analysis of tibio-femoral biomechanis. At: International Society for Magnetic Resonance in Medicine, Paper #1804, p.275; Honolulu, June 2002.
43. Hall K, Patel V, Colman W, Lindsey C, Ozhinsky E, Ries M, Majumdar S. In-Vivo Quantitative Kinematic Magnetic Resonance Imaging of the Patellofemoral Joint. At: International Society for Magnetic Resonance in Medicine, Paper #96 p.17; Honolulu, June 2002.
44. N. Roy, V. Patel, R. Coughlin "Buffer Zone Hospital Experience After the Gujarat, India Earthquake" Proceedings of the 1st Mediterranean Emergency Medicine Conference, Sept 2-5 2001, Stresa, Italy.
45. V. Patel, A. Issever, M. Ries, A. Burghardt, S. Majumdar, "Micro-CT Evaluation of Arthritic and Normal Knee Trabecular Bone Structure" Proceeding of the American Society of Bone and Mineral Research Annual Meeting, Phoenix, AZ. Oct. 16, 2001.

46. V. Patel, M. Ries, A. Burghardt, S. Ghosh, S. Majumdar, "Micro-CT Evaluation of Normal and Arthritic Knee Trabecular Bone Structure" Proceedings of the 4th Combined Meeting of the Orthopaedic Research Society, Rhodes, Greece, June 2001.
47. V. Patel, K. Hall, M. Ries, S. Majumdar, "MRI Evaluation of Knee Biomechanics" Proceeding of the Western Orthopaedic Association 65th Annual Meeting, San Francisco CA. Sept.22-26, 2001, p.49.
48. V. Patel, A. Issever, M. Ries, A. Burghardt, S. Majumdar, "Use of Micro-CT for Comparison of Normal with Arthritic Knee Bone Structure" Proceeding of the Western Orthopaedic Association 65th Annual Meeting, San Francisco CA. Sept. 2001, p.141.
49. V. Patel, M. Vannier, J. Marsh, L. Lo, "Evaluation of Digital Surgical Simulation," Computer Assisted Radiology – Proceedings of the International Symposium on Computer and Communication Systems for Image Guided Diagnosis and Therapy, June, 1995, pp 783-788.
50. L. Lo, J. Marsh, V. Patel, M. Vannier, "Craniofacial Surgical Simulation and Outcome Validation," Computer Assisted Radiology – Proceedings of the International Symposium on Computer and Communication Systems for Image Guided Diagnosis and Therapy, June, 1995, pp 789-794.
51. L. Lo, V. Patel, M. Vannier, J. Marsh, "Craniofacial Surgical Planning and Simulation," Proceedings of the 6th International Society of Craniofacial Surgery, San Tropez, France, Oct. 23-25, 1995.