

BEN B. PRADHAN, M.D., M.S.E.

Orthopaedic Spine Surgeon

Ben B. Pradhan, M.D., M.S.E. is an orthopaedic surgeon Board Certified in spine surgery for the treatment of cervical, thoracic, and lumbar spinal disease.

Dr. Pradhan began his studies at Princeton University, where he graduated with honors from the Department of Aerospace Engineering and the Department of Applied Mathematics. He went on to earn a Master of Science degree in Engineering with honors from the UCLA Graduate School of Engineering and Applied Sciences. Later he earned a Medical Degree, with a Dean's Scholar recognition, at the UCLA School of Medicine. Dr. Pradhan completed both his surgical internship and orthopaedic surgical residency at the UCLA Medical Center in Los Angeles. He completed his spine surgery fellowship at THE SPINE INSTITUTE in Santa Monica, California.

Dr. Pradhan is extensively involved in research within the field of spine surgery. He has authored multiple articles based on his research and presented his work at numerous national and international meetings. He is especially interested in the biomechanical analysis of spinal prostheses (artificial discs, dynamic stabilization, etc) and other spinal constructs. He is an active member of the American Academy of Orthopaedic Surgeons and the North American Spine Society.

Ben B. Pradhan, M.D., M.S.E. Curriculum Vitae

Wife: Dimple Bhasin, MD Children: None

TRAINING

American Board of Orthopaedic Surgeons Board Certified in Orthopaedic Spine Surgery

THE SPINE INSTITUTE, Santa Monica, Spine Surgery Fellowship Santa Monica, CA

UCLA Medical Center, Orthopaedic Surgery Residency Los Angeles, CA

UCLA Medical Center, Surgical Internship Los Angeles, CA

EDUCATION

UCLA Geffen School of Medicine, Doctor of Medicine

Los Angeles, CA Deans Scholar – AOA, Biomechanics Research Honors Research Thesis in Biomechanical Modeling of the Spine

UCLA School of Aerospace Engineering, Master of Science in Engineering

Los Angeles, CA Minor in Biomedical Systems Modeling Most Outstanding Graduate Engineering Student Nominee

Princeton University, Bachelor of Science in Aerospace Engineering Princeton, NJ Minor in Applied Mathematics Graduated with high honors, Tau Beta Pi, Sigma Chi, McDonnell Douglas Aerospace Scholar

Washington International School, International Baccalaureate Diploma Washington, DC Class Valedictorian, Best Science Student, Mayor's Award Washington DC

HONORS AND AWARDS

1. AOA Emerging Leaders Program American Orthopaedic Association, 2006 Rosemont, IL

2. Russell Hibbs Award for Best Basic Science Presentation Finalist, Scoliosis Research Society

"Worst Case Scenario For BMP-2 Mediated Gene Therapy In Posterolateral Fusion." Hyun W Bae, Li Zhao, **Ben B Pradhan**, Pamela Wong, Linda Kanim, Jeffrey C Wang, Rick B Delamarter 41st Annual Meeting in Monterey, CA, Sept 2006.

3. Leon Wiltse Best Clinical Paper Award, Spinal Arthroplasty Society

"Lumbar Total Disc Replacement: A 2 to 3 Year Report from 2 Centers in the United States Clinical Trial for the ProDisc-L Prosthesis."

RB Delamarter, JE Zigler, HW Bae, BL Sachs, RF Rashbaum, DD Ohnmeiss, LEA Kanim, **BB Pradhan** 5th Annual Meeting in New York, NY, May 2005.

4. John H Moe Award for Best Scientific Exhibit, Scoliosis Research Society

"Controlling Bone Morphogenetic Protein-Stimulated Bone Growth using Fibrin Glue." VV Patel, L Zhou, P Wong, **BB Pradhan**, HW Bae, RB Delamarter 39th Annual Meeting in Buenos Aires, Argentina, Sept 2004.

5. Basic Science Paper Award Winner, Cervical Spine Research Society

"Worst Case Scenario for BMP-2 Mediated Gene Therapy in Posterolateral Fusion." HW Bae, L Zhao, P Wong, **BB Pradhan**, LEA Kanim, JC Wang, RB Delamarter 33rd Annual Meeting in San Diego, CA, Dec 2005.

6. Clinical Paper Award Winner, Cervical Spine Research Society

"Cervical Disc Replacement: Longer-Term (2-year) Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis."

RB Delamarter, MD, HW Bae, MD, MA Kropf, MD, LEA Kanim, MS, **BB Pradhan,** MD, MSE 33rd Annual Meeting in San Diego, CA, Dec 2005.

7. Top Poster – Best Scientific Poster Award

International Meeting for Advanced Spinal Techniques, Athens, Greece Jul 2006. "Dynamic Posterior Lumbar Stabilization with the Dynesys Device." **Ben B Pradhan**, MD MSE; Hyun W. Bae, MD; Linda EA Kanim, MA; Rick B. Delamarter, MD

8. Thomas Whitecloud Basic Science Research Award Finalist

International Meeting for Advanced Spinal Techniques, Athens, Greece Jul 2006. "Bone Marrow Enhances the Performance of rhBMP-2." HW Bae, **BB Pradhan**, LEA Kanim, L Zhao, P Wong, JC Wang, RB Delamarter

9. Thomas Whitecloud Basic Science Research Award Finalist

International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. "Cellular Environments can alter Performance of rhBMP-2 and Induce Pseudarthrosis." HW Bae, LEA Kanim, L Zhao, P Wong, **BB Pradhan**, RB Delamarter

10. Thomas Whitecloud Basic Science Research Award Finalist

International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. "Recovery of Function Following Experimental Lumbar Spinal Cord Injury in Rats." HW Bae, LEA Kanim, L Zhao, P Wong, **BB Pradhan**, RB Delamarter

11. American Board of Orthopaedic Surgeons, Board Certified In top 20 among national board examinees, 2003

12. UCLA Geffen School of Medicine, Los Angeles, CA

Honors Thesis Program, 1998 Recognized as Dean's Scholar, 1998 Nominated for Alpha Omega Alpha, Biomechanics Research Award, 1997 UCLA Short Term Training Program Research Award, Orthopaedic Biomechanics, 1995

13. UCLA Graduate School of Mechanical and Aerospace Engineering

Most Outstanding Graduate Student Nominee, 1994 University of California Chancellor's Fellowship Recipient, 1992 UC Departmental CAMP Fellowship for Engineering, 1993 Hortense Fishbaugh Memorial Fellowship, 1993

14. Princeton University School of Engineering and Applied Science, Princeton, NJ

Graduated with honors, 1992 Thesis Honors – Sigma Chi National Research Honor Society, 1992 Nominated to Tau Beta Pi National Engineering Honor Society, 1991 Dean's List, Department of Aerospace Engineering McDonnell Douglas Aerospace Scholar, 1991 US Air Force ROTC Scholarship, 1990 Princeton University Scholarship, 1988 - 1992

15. Washington International School, Washington, DC

Class Valedictorian, 1988 International Baccalaureate Diploma District of Columbia Mayor's Award for Academic Distinction Headmaster's Award and Best Science Student Award National Merit Scholar Finalist

WORK AND RESEARCH EXPERIENCE

Spine Research Foundation, 2003 – now Director of Clinical Research Spine Surgery Fellowship Application Coordinator The Spine Institute, Santa Monica Los Angeles, CA

UCLA Department of Orthopaedic Surgery, 1994 – 2003 Medical Student Thesis and Resident research projects Biomechanics Division Los Angeles, CA

UCLA School of Engineering and Applied Science, 1992 – 1994 Graduate Researcher and Teaching Assistant Department of Aerospace Engineering Los Angeles, CA

McDonnell Douglas Corporation, 1991 Research Intern, F-18 Project, Computational Fluid Dynamics Military Aircraft Division St Louis, MO

Princeton University School of Engineering and Applied Sciences Thesis and Fluid Mechanics research projects Department of Aerospace Engineering Princeton, NJ

UCLA Department of Prosthetics and Orthotics, 1993 Assistant technician Los Angeles, CA

Quidel Pharmaceuticals Company, 1989 Assistant technician San Diego, CA

PUBLICATIONS

- Cervical Total Disc Artrhoplasty PRODISC-C BB Pradhan MD MSE, RB Delamarter MD Motion Preservation Surgery Of The Spine: Advanced Techniques And Controversies Eds: James J. Yue, Rudolf Bertagnoli, Paul McAfee, & Howard An, 2006.
- Lumbar Total Disc Artrhoplasty PRODISC-L BB Pradhan MD MSE, RB Delamarter MD Motion Preservation Surgery Of The Spine: Advanced Techniques And Controversies Eds: James J. Yue, Rudolf Bertagnoli, Paul McAfee, & Howard An, 2006.
- Conventional Fluoroscopic Techniques in Spine Surgery BB Pradhan, MD MSE Seminars in Spine Surgery. Eds: Vaccaro and Whang, 2006
- Imaging Techniques for the Osteoporotic Spine.
 BB Pradhan, MD MSE Seminars in Spine Surgery. Eds: Balderston and Auerbach, 2006
- Noninterventional Management (Watchful Waiting) for Low Back Pain. BB Pradhan, MD MSE The Spine Journal – Special Supplement on Nonsurgical Care of Chronic Low Back Pain, 2007.
- Osteoporosis of the spine and compression fractures.
 BB Pradhan, MD Textbook: American Academy of Orthopaedic Surgeons: Orthopaedic Board Review. Ed:JR Lieberman, 2006.
- Does Autologous Bone Marrow Aspirate Enhance Graft Effectiveness for Spinal Fusion? HW Bae MD, LEA Kanim MA, **BB Pradhan** MD MSE, E Spayde MD, P Wong BS, L Zhao MD PhD, RB Delamarter MD Scientific Journal: *Seminars in Spine Surgery*, Spring 2006
- Management of Cervical Pseudarthrosis.
 RB Delamarter MD, BB Pradhan MD MSE, VV Patel MA MD Textbook: *Complications in Spine Surgery*. L Jenis, et al, eds, 2006.
- The Anterior Approach to the Lumbar Spine. RB Delamarter MD, BB Pradhan MD MSE Textbook: Spine Surgery: Tricks of the Trade. Eds: AR Vaccaro and T Albert. 2nd Edition, Elsevier, 2006.
- Artificial Discs and their Clinical Track Record. RB Delamarter MD, BB Pradhan MD MSE Textbook: Innovations in Spinal Reconstruction: Clinical Examples of Basic Science, Biomechanics, and Engineering. Eds: KU Lewandrowski, P Park, RF McLain, IH Kalfas, MJ Yaszemski, and DJ Trantolo.Taylor & Francis Group, New York, NY, 2006.
- Cervical Arthroplasty: ProDisc-C. RB Delamarter MD, BB Pradhan MD MSE Textbook: Spinal Arthroplasty: Preservation of Motion. Ed: AR Vaccaro MD. Elsevier, 2005.
- 12. Microscopic Lumbar Discectomy and Rehabilitation.

RB Delamarter MD, BB Pradhan MD MSE

Textbook: *Rehabilitation for the Post-Surgical Orthopedic Patient*. Eds: L Maxey and J Magnuson. Elsevier, Philadelphia, PA, 2006.

- Anterior Cervical Discectomy and Fusion and Rehabilitation. RB Delamarter MD, BB Pradhan MD MSE, JT Huffman MD Textbook: *Rehabilitation for the Post-Surgical Patient*. Eds: L Maxey and J Magnuson. Elsevier, Philadelphia, PA, 2006.
- Clinical Outcomes, Range of Motion, and Cervical Alignment after Cervical Disc Replacement with ProDisc-C.
 RB Delamarter MD, HW Bae MD, MA Kropf MD, LEA Kanim MD, BB Pradhan MD MSE Accepted for publication in *The Journal of Neurosurgery: Spine*.
- Cervical Disc Replacement Intermediate (18-Month) Follow-Up of Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis.
 RB Delamarter, MD; HW Bae, MD; MA Kropf, MD; LEA Kanim, MA; BB Pradhan, MD MSE Accepted for publication in *The Journal of Spinal Disorders and Techniques*.
- Kyphoplasty Reduction of Osteoporotic Vertebral Compression Fractures: Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment.
 BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD Scientific Journal: *SPINE*. 2006 Feb;31(4):435-41.
- Computed tomography assessment of the accuracy of in vivo placement of artificial discs in the lumbar spine including radiographic and clinical consequences.
 VV Patel, C Andrews, LEA Kanim, **BB Pradhan**, MA Kropf, HW Bae, RB Delamarter Scientific Journal: *SPINE*. 2006 Apr 15;31(8):948-53.
- Controlling bone morphogenetic protein diffusion and bone morphogenetic protein-stimulated bone growth using fibrin glue.
 VV Patel MA MD, L Zhao MD PhD, P Wong BS, **BB Pradhan** MD MSE, HW Bae MD, RB Delamarter MD Scientific Journal: *SPINE*. 2006 May 15;31(11):1201-6.
- An in vitro and in vivo analysis of fibrin glue use to control bone morphogenetic protein diffusion and bone morphogenetic protein-stimulated bone growth.
 VV Patel, L Zhou, P Wong, **BB Pradhan**, HW Bae, RB Delamarter Scientific Journal: *The Spine Journal*. 2006 Jul-Aug;6(4):397-403.
- A Metatarsal Equivalent to the Metacarpal Index in Marfan's Syndrome? BB Pradhan, MD MSE; NY Otsuka, MD Scientific Journal: *Foot and Ankle International*. 2005 Oct;26(10):881-5.
- Clinical Results after Lumbar Total Disc Replacement: an Interim Report from the United States Clinical Trial for the ProDisc-II Prosthesis Rick B. Delamarter, MD, Hyun W. Bae, MD, and **Ben B. Pradhan**, MD, MSE, Scientific Journal: Orthopedic Clinics of North America, 2005 36:301-313.
- Capitellar Fracture in a Child: The Value of an Oblique Radiograph. BB Pradhan, MD MSE; D Bhasin, MD; W Krom, MD Scientific Journal: *Journal of Bone and Joint Surgery Am*, 2005 Mar;87-A(3):635-8.
- 23. Surgical Decompression for Herniated Nucleus Pulposus RB Delamarter MD, **BB Pradhan** MD MSE

Textbook: *Interventional Spine: an algorithmic approach*. Slipman C, Simeone F, Derby, R [Eds] 2004.

- Indications for Cervical Spine Prostheses Early Experiences with Prodisc-C in The USA RB Delamarter MD, BB Pradhan MD MSE Scientific Journal: SpineArt. Vol 1, May 2004.
- Surgical Management of Lumbar Disc Degeneration Total Disc Replacement RB Delamarter MD, BB Pradhan MD MSE Scientific Journal: *Biomechanics Magazine*. May 2004.
- Complications of Lumbar Interbody Fusion Cages.
 BB Pradhan, MD MSE, JC Wang, MD Textbook: *Complications of pediatric and adult spinal surgery*. Vaccaro A, Anderson DG, Crawford A, et al, eds. 2004.
- Misrepresentation of Research Publications Among Orthopaedic Surgery Fellowship Applicants. BB Pradhan, MD MSE; MV Patel, MD; RA Meals, MD Scientific Journal: SPINE. 2003 April;28(7):632-636.
- Instrumented Single Level Lumbar Intervertebral Fusion: A Comparison of Anterior and Posterior Approaches.
 BB Pradhan, MD MSE; JA Nassar, MD; RB Delamarter, MD; JC Wang, MD Scientific Journal: *J Spinal Disord Tech*. 2002 Oct;15(5):355-61.
- The Chinese-Uighur Calendar in Tusi's Zij-I Ilkhani. BV Dalen, PhD; ES Kennedy, PhD; MK Saiyid, MA; technical illustrations by **BB Pradhan**, MSE Department of Mathematics, Princeton University Textbook: Zeitschrift fur die Geschichte, Der Arabisch-Islamischen Wissenschaften, Band 11-1997 [German].
- Evaluation and Report of the NASA VTXCHN Computational Fluid Dynamics Flow-Predicting Code: The F-18 Aircraft Wing Leading Edge Extension.
 BB Pradhan, MSE; M Barnett, MSE; W Ely, PhD Eng (F-18 Project Report to NASA) Published Aug 1991, by the Aerotechnology Group, McDonnell Douglas Corp, Military Aircraft Division, St. Louis, MO.
- Semi-Constrained Single and Two-Level Lumbar Total Disc Replacements for Degenerative Disc Disease: 2 to 3-Year Results From One Site in the United States Clinical Trials for the ProDisc-L Prosthesis.
 RB Delamarter MD, HW Bae MD, MA Kropf MD, LEA Kanim MA, **BB Pradhan** MD MSE Submitted for publication.
- 32. Artificial Disc Replacement as a Salvage Procedure for Failed Back Surgery Syndrome: Results with a Semi-Constrained Prosthesis (ProDisc-L) for One and Two-Level Disease. RB Delamarter MD, HW Bae MD, MA Kropf MD, VV Patel MA MD, LEA Kanim MA, BB Pradhan MD MSE Submitted for publication.
- Leakage of rhBMP-2 from Absorbable Collagen Sponges during use in Anterior Cervical Discectomy and Fusion: Quantification by Assay and Radiographic Follow-up.
 BB Pradhan, MD MSE; HW Bae, MD; VV Patel, MD; MA Kropf, MD; L Zhao, MD PhD; P Wong, BS; RB Delamarter, MD Submitted for publication.

- Radiographic Characterization of Anterior Cervical Discectomy and Fusion using Allograft, rhBMP-2, and Plate
 BB Pradhan, MD MSE; HW Bae, MD; MA Kropf, MD; VV Patel, MD; RB Delamarter, MD Submitted for publication.
- 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.
 BB Pradhan MD MSE, RB Delamarter MD, HW Bae MD, VV Patel MD, MA Kropf MD, EG Dawson MD Scientific Journal: SPINE. 2006 May 1;31(10):E277-84.
- Lumbar Disc Degeneration in Women and Advances in Management Total Disc Replacement BB Pradhan MD MSE, VV Patel MD, HW Bae MD, MA Kropf, RB Delamarter MD Submitted for publication.
- The Development of Lumbar Spine Arthroplasty RB Delamarter MD, BB Pradhan MD MSE Submitted for publication.
- Cervical Spine Motion after Disc Replacement.
 VV Patel MD, BB Pradhan MD MSE, HW Bae MD, RB Delamarter MD Submitted for publication.
- Floating and Fixed Center of Rotation Intervertebral Prostheses Biomechanical Comparison VV Patel, J Welcher, HW Bae, RB Delamarter, BB Pradhan, T Hedman Submitted for publication
- Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion. BB Pradhan, MD MSE; JC Wang, MD Submitted for publication.
- The Cellular Environment can Affect BMP Osteoinductivity and Induce Pseudarthrosis. HW Bae MD, L Zhao MD PhD, LEA Kanim MA, P Wong BS, **BB Pradhan** MD, RB Delamarter MD Submitted for publication.
- 42. Toradol use for Post-Operative Pain Control in Spine Patients: Does it Really Affect Fusion Rates?
 BB Pradhan, MD MSE; CA Kuhns, MD; JC Wang, MD; EG Dawson, MD Submitted for publication.
- 43. UCLA School of Medicine Thesis: A Virtual Model of a Spine Motion Segment using Computerized 3-D Finite Element Analysis.
 Bioemechanics Division, UCLA Department of Orthopaedic Surgery
 BB Pradhan, MD MSE; H Sandhu, MD; JM Kabo, PhD
- 44. Graft resorption with rhBMP-2 in anterior cervical discectomy and fusion: a radiographic characterization of the effect of rhBMP-2 on structural allografts
 Pradhan BB, Bae HW, Kropf MA, Patel V, Delamarter RB
 The Spine Journal
 July 2005 (Vol. 5, Issue 4 (Supplement), Pages S42-S43)
- 45. 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 **Pradhan BB**, Bae HW, Kropf MA, Patel VV, Zhao L, Wong P, Delamarter RB

The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Page S55)

- 46. Assessment of the accuracy of in vivo placement of artificial discs in the lumbar intervertebral space using computed tomography along with its radiographic and clinical consequences Patel VV, **Pradhan BB**, Andrews C, Bae HW, Kanim LEA, Delamarter RB The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Pages S116-S117)
- 47. Comparison of outcomes after lumbar artificial disc replacement surgery in worker's compensation vs. noncompensation patients
 Delamarter RB, Lam L, Bae HW, Pradhan BB
 The Spine Journal
 July 2005 (Vol. 5, Issue 4 (Supplement), Pages S117-S118)
- Lumbar total disc replacement: a 2 to 3 year report from 2 centers in the United States clinical trial for the Prodisc-II prosthesis Delamarter RB, Zigler J, Ohnmeiss D, Kanim LEA, **Pradhan BB** The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Pages S157-S158)
- Artificial disc replacement as a salvage treatment for failed back syndrome Delamarter RB, Rudin B, Bae HW, Kanim LEA, Pradhan BB The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Page S159)
- 50. Cervical disc replacement-intermediate-term follow-up (1 to 2 years) of range of motion and clinical outcomes with the ProDisc-C prosthesis Delamarter RB, Bae HW, Kanim LEA, Lam L, Pradhan BB The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Page S161)
- 51. Restoration and maintenance of coronal and sagittal lumbar spinal alignment with a semiconstrained multi-level lumbar total disc arthroplasty (Prodisc-II) Pradhan BB, Bae HW, Kanim LEA, Kamrava E, Delamarter RB The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Page S162)
- 52. Disc height restoration and its effect on range of motion and clinical outcome after semiconstrained lumbar total disc replacement (ProDisc-II)
 Pradhan BB, Bae HW, Kropf MA, Kanim LEA, Delamarter RB The Spine Journal July 2005 (Vol. 5, Issue 4 (Supplement), Pages S164-S165)
- 53. Princeton University Thesis: Interactive Computer 3-D Simulation of Aircraft Dynamics (Aircraft Simulator).
 Department of Aerospace Engineering, Princeton University
 BB Pradhan, BSE; R McKillip, PhD

PRESENTATIONS

- Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. Podium - The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury. Hyun W Bae, MD, Li Zhao, MD, PhD, Pamela Wong, MPH, Linda EA Kanim, MS, Jeffrey C Wang, MD, Ben B Pradhan, MD, MSE, Rick B Delamarter, MD
- Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. Podium – 1 Versus 2 Versus 3-Level Cervical Artificial Disc Replacements: A Prospective Report of Clinical Outcomes with the the PRODISC-C Device. Hyun W Bae, MD, **Ben B Pradhan**, MD, MSE, Michael A Kropf, MD, Linda EA Kanim, MS, Rick B Delamarter, MD
- Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. Podium – Cervical Disc Replacement: Over 3-Year Prospective Tandomized Clinical Outcomes and Range of Motion Follow-Up with the PRODISC-C Artificial Disc. Rick B Delamarter, MD, Ben B Pradhan, MD, MSE, Michael A Kropf, MD, Linda EA Kanim, MS, Hyun W Bae, MD
- Congress of Neurological Surgeons Annual Meeting, Chicago, IL, Oct 2006. Prospective randomized trial of CORTOSS versus PMMA in the treatment of vertebral compression fractures; preliminary results at a single institution. BB Pradhan, MS Shen, HW Bae
- Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Cervical Disc Replacement: 2 to 3-Year Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis. RB Delamarter, HW Bae, MA Kropf, LEA Kanim, BB Pradhan
- Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Is The Motion "Normal" After Multi-Level Cervical Disc Replacement? Analysis Of Motion At Each Treated And Adjacent Levels After 1 To 3-Level Disc Replacement Versus Fusion - Poster Ben B Pradhan, Rick B Delamarter, Hyun W Bae
- Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Does bone marrow enhance rhBMP-2 effectiveness for spinal fusion? HW Bae, **BB Pradhan**, MA Kropf, LEA Kanim, RB Delamarter
- Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006.
 1 versus 2 versus 3-level lumbar artificial disc replacement a prospective report of clinical outcomes with the ProDisc-L device Poster
 BB Pradhan, HW Bae, MA Kropf, LEA Kanim, RB Delamarter
- 9. Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Effect of motion preserving reconstruction on spinal alignment: cervical segmental and overall coronal and sagittal alignment after 1 to 3-level disc replacement (ProDisc-C) versus fusion -Poster

Ben B Pradhan, Hyun Bae, Michael Kropf, Linda Kanim, Rick Delamarter

 Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty(ProDisc-L).
 Ben B. Pradhan, MD MSE; HW. Bae, MD; Linda E.A. Kanim, MS; Rick B. Delamarter, MD

- Scoliosis Research Society Annual Meeting, Monterey, CA, Sept 2006.
 Worst Case Scenario for Cell-Mediated BMP-2 Gene Therapy in Posterolateral Fusion.
 HW Bae, L Zhao, P Wong, JC Wang, LEA Kanim, BB Pradhan, RB Delamarter
- Scoliosis Research Society Annual Meeting, Monterey, CA, Sept 2006. Characteristics of BMP adsorption by absorbable collagen sponges *in vivo* and *in vitro*. Hyun W. Bae MD, Li Zhao MD, Ben B. Pradhan MD MSE, Pamela Wong MD, Linda Kanim MD, Rick B. Delamarter MD
- Scoliosis Research Society Annual Meeting, Monterey, CA, Sept 2006.
 PRODISC-L Lumbar Disc Replacement Results from the US FDA Clinical Trial.
 BB Pradhan, HW Bae, MA Kropf, RB Delamarter
- Scoliosis Research Society Annual Meeting, Monterey, CA, Sept 2006. Single Level Artificial Disc Replacement at L4-5 Versus L5-S1: Is There Any Difference in Technique, Morbidity, or Result? - Poster M Shen MD, HW Bae MD, MA Kropf MD, RB Delamarter MD, BB Pradhan MD
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.
 Podium Cervical Disc Replacement: 2 to 3-Year Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis.
 RB Delamarter, HW Bae, MA Kropf, LEA Kanim, BB Pradhan
- 16. North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Charité-III versus ProDisc-L Early Head to Head Results at a Single Institute - Poster E Spayde, BB Pradhan, HW Bae, M Shen, RB Delamarter
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Single level artificial disc replacement at L4-5 versus L5-S1 - is there any difference in technique, morbidity, or result? – Poster M Shen, **BB Pradhan**, HW Bae, MA Kropf, E Spayde, RB Delamarter
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.
 Podium Clinical Experience Using a Novel Bio-Ceramic for Treating Vertebral Compression Fractures, with One to Two Year Follow-Up.
 MS Shen MD, HW Bae MD, BB Pradhan MD MSE, et al.
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Podium - The Effect of BMPs on the Expression of GAP-43 and Caspase-3 during Spinal Cord Injury. HW Bae MD, L Zhao MD PhD, P Wong MPH, LEA Kanim MS, JC Wang MD, BB Pradhan MD MSE, RB Delamarter MD.
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.
 1 versus 2 versus 3-level lumbar artificial disc replacement a prospective report of clinical outcomes with the ProDisc-L device Poster
 RB Delamarter, HW Bae, MA Kropf, LEA Kanim, M Shen, **BB Pradhan**
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Podium - Is the motion "normal" after multi-level lumbar disc replacement? – Analysis of motion at each treated and adjacent levels after 1 to 3-level disc replacement versus fusion.
 BB Pradhan, HW Bae, MA Kropf, LEA Kanim, RB Delamarter
- 22. North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Podium - Is the motion "normal" after multi-level cervical disc replacement? – Analysis of motion at each treated and adjacent levels 1 to 3-level disc replacement versus fusion.

HW Bae, BB Pradhan, MA Kropf, LEA Kanim, RB Delamarter

- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. Charite III versus ProDisc-L: Comparison of intraoperative intervertebral distraction between a non-constrained versus a semi-constrained lumbar total disc replacement – Poster BB Pradhan, HW Bae, MA Kropf, RB Delamarter
- North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.
 Podium Worst Case Scenario for Cell-Mediated BMP-2 Gene Therapy in Posterolateral Fusion.
 HW Bae, L Zhao, P Wong, JC Wang, LEA Kanim, BB Pradhan, RB Delamarter
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Single level artificial disc replacement at L4-5 versus L5-S1: Is there any difference in technique, morbidity, or result? Michael Shen MD, Ben B. Pradhan MD MSE, Hyun W. Bae MD, Michael Kropf MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Bone Marrow Enhances The Performance of RhBMP-2. Hyun W. Bae MD, Li Zhao MD, Ben B. Pradhan MD MSE, Pamela Wong MD, Linda Kanim MD, Jeffrey C. Wang MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Cervical Disc Replacement: 2 to 3-Year Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis. Hyun W. Bae MD, **Ben B. Pradhan** MD MSE, Michael Kropf MD, Linda Kanim MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Return to Work Outcomes After Lumbar Artificial Disc Replacement – Using a Standardized Evaluation Questionnaire.
 Ben B. Pradhan MD, MSE, Erik Spayde MD, Hyun Bae MD, Tejal Shah MD, Tanzib Hussein MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Is the Motion "Normal" After Multi-Level Lumbar Disc Replacement? – Analysis of Motion at Each Treated and Adjacent Levels After 1 to 3-Level Disc Replacement Versus Fusion.
 Ben B. Pradhan MD MSE, Hyun W. Bae MD, Linda Kanim MD, Michael Kropf MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Charité-III versus ProDisc-L Early Head to Head Results in a Single Institute. Erik Spayde MD, Ben B. Pradhan MD MSE, Hyun W. Bae MD, Michael Kropf MD, Rick B. Delamarter MD
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Analysis of rhBMP-2 Retention in Absorbable Collagen Sponges and Diffusion Patterns in a Simulated in Vivo Environment. Hyun W. Bae MD, Rick Delamarter MD, Li Zhao MD, Pamela Wong MD, Linda Kanim MD, Ben B. Pradhan MD MSE
- 32. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Worst Case Scenario For BMP-2 Mediated Gene Therapy In Posterolateral Fusion - Poster Hyun W Bae, Li Zhao, Ben Pradhan, Pamela Wong, Linda Kanim, Jeffrey Wang, Rick Delamarter

- 33. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Charite-III Versus ProDisc-L: Comparison Of Intraoperative Intervertebral Distraction Between A Non-Constrained Versus A Semi-Constrained Lumbar Total Disc Replacement - Poster Ben B Pradhan, Hyun Bae, Erik Spayde, Rick Delamarter
- 34. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Is The Motion "Normal" After Multi-Level Cervical Disc Replacement? Analysis Of Motion At Each Treated And Adjacent Levels After 1 To 3-Level Disc Replacement Versus Fusion - Poster Rick B Delamarter, Hyun W Bae, Ben B Pradhan
- 35. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Bone Morphogenetic Protein-2 Retention In A Vertebral Body Fracture Stabilization Device (OptiMesh) - Poster Hyun W Bae, Li Zhao, **Ben Pradhan**, Pamela Wong, Linda Kanim, Michael Kropf, Rick Delamarter
- 36. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. 1 Versus 2 Versus 3–Level Lumbar Artificial Disc Replacements: A Prospective Report Of Clinical Outcomes With The ProDisc-C Device - Poster Hyun W Bae, Ben B Pradhan, Linda Kanim, Michael Kropf, Rick Delamarter
- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006.
 Versus 2 Versus 3–Level Cervical Artificial Disc Replacements A Prospective Report Of Clinical Outcomes With The ProDisc-C Device - Poster Hyun W Bae, **Ben B Pradhan**, Linda Kanim, Michael Kropf, Rick Delamarter
- 38. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Effect of motion preserving reconstruction on spinal alignment: cervical segmental and overall coronal and sagittal alignment after 1 to 3-level disc replacement (ProDisc-C) versus fusion -Poster

Ben B Pradhan, Hyun Bae, Michael Kropf, Linda Kanim, Rick Delamarter

- International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Dynamic Posterior Stabilization of the Lumbar Spine: Results from the US Clinical Trial with the Dynesys System
 Ben B Pradhan, Hyun W Bae, Linda Kanim, Rick Delamarter
- 40. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Is The Motion "Normal" After Lumbar Disc Replacement? Analysis of Motion at Each Treated and Adjacent Levels After Single and Multi-Level Disc Replacement Versus Fusion.
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Michael A. Kropf, MD; Rick B. Delamarter, MD
- Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Cervical Disc Replacement: 2-3 Year Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis.
 Hyun W. Bae, MD; Ben B. Pradhan, MD MSE; Linda E.A. Kanim, MS; Michael A. Kropf, MD; Rick B. Delamarter, MD
- 42. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Dynamic Posterior Stabilization of the Lumbar Spine: Results from the US Clinical Trial with the DYNESYS System - Poster
 Hyun W Bae MD, Ben B Pradhan MD MSE, Linda EA Kanim MS, Rick B Delamarter MD

- 43. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Spinal alignment after 1 to 3-level cervical disc replacement (ProDisc-C) versus fusion – segmental and overall coronal and sagittal alignment - Poster
 Ben B Pradhan MD MSE, Hyun W Bae MD, Michael A Kropf MD, Linda EA Kanim MA, Rick B Delamarter MD
- 44. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 1 versus 2 versus 3-level lumbar artificial disc replacement – a prospective report of clinical outcomes with the ProDisc-L device - Poster Rick B Delamarter MD, Hyun W Bae MD, Michael A Kropf MD, Linda EA Kanim MA, Ben B Pradhan MD MSE
- 45. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006. Total Disc Replacement Versus Fusion as a Salvage Treatment for Failed Back Surgery Syndrome - Poster
 Ben B Pradhan MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD
- 46. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Charite III versus ProDisc-L: Comparison of intraoperative intervertebral distraction between a non-constrained versus a semi-constrained lumbar total disc replacement - Poster
 Ben B Pradhan MD MSE, Hyun W Bae MD, Michael A Kropf MD, Rick B Delamarter MD
- 47. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Is the motion "normal" after cervical disc replacement? – Analysis of motion at each treated and adjacent levels after single and multi-level disc replacement versus fusion.
 Ben B Pradhan MD MSE, Hyun W Bae MD, Michael A Kropf MD, Linda EA Kanim MA, Rick B Delamarter MD
- Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Montreal, CN, May 2006.
 Return to work outcomes after lumbar artificial disc replacement.
 BB Pradhan MD MSE, E Spayde MD, HW Bae MD, MA Kropf MD, M Shen MD, RB Delamarter, MD
- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Gene Therapy For Posterolateral Fusion: Worst Case Scenario. HW Bae MD, L Zhao MD PhD, P Wong MPH, BB Pradhan MD MSE, JC Wang MD, RB Delamarter MD
- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Return to Work Outcomes After Lumbar Artificial Disc Replacement.
 BB Pradhan MD MSE, E Spayde, MD, Hyun W Bae MD, MA Kropf MD, M Shen MD, RB Delamarter MD
- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Total Disc Replacement Versus Fusion as a Salvage Treatment for Failed Back Surgery Syndrome.
 BB Pradhan MD MSE, Hyun W Bae MD, LEA Kanim MA, MA Kropf MD, RB Delamarter MD

- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Does Bone Marrow Enhance rhBMP-2 Effectiveness for Spinal Fusion?. Hyun W Bae MD, Li Zhao MD PhD, Pamela Wong MPH, LEA Kanim MA, JC Wang MD, BB Pradhan MD MSE, RB Delamarter MD
- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006.
 Versus 2 Versus 3-Level Lumbar Artificial Disc Replacement A Prospective Report of Clinical Outcomes with the ProDisc-L Device.
 BB Pradhan MD MSE, Hyun W Bae MD, LEA Kanim MA, MA Kropf MD, RB Delamarter MD
- International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Is The Motion "Normal" After Lumbar Disc Replacement? Analysis of Motion at Each Treated and Adjacent Levels After Single and Multi-Level Disc Replacement Versus Fusion. Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Michael A. Kropf, MD; Rick B. Delamarter, MD
- 55. International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Charite-III Versus ProDisc-L: Comparison of Intraoperative Intervertebral Distraction Between a Non-Constrained Versus a Semi-Constrained Lumbar Total Disc Replacement. Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Michael A. Kropf, MD; Rick B. Delamarter, MD
- 56. International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Charite-III Versus ProDisc-L: Early Head-to-Head Results at One Institute. E Spayde MD, Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Michael A. Kropf, MD; M Shen MD, Rick B. Delamarter, MD
- 57. International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006. Bone Morphogenetic Protein-2 Retention in a Vertebral Body Fracture Stabilization Device (OptiMesh).
 Hyun W. Bae, MD; Li Zhao MD PhD; Pamela Wong MPH; Ben B. Pradhan, MD MSE; Linda EA Kanim MA; Rick B. Delamarter, MD
- Orthopaedic Research Society Annual Meeting, Chicago, IL, Mar 2006. Motion-Preserving Dynamic Posterior Stabilization of the Lumbar Spine: Early Results from the US Clinical Trial with the Dynesys System.
 Ben B Pradhan, MD MSE; Jason Huffman, MD; Hyun W. Bae, MD; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 59. American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Comparison Of Outcomes After Lumbar Artificial Disc Replacement Surgery In Worker's Compensation Versus Non-Compensation Patients RB Delamarter MD, L Lam MPH, HW Bae MD, BB Pradhan MD MSE
- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Graft Resorption with rhBMP-2 in Anterior Cervical Diskectomy and Fusion: A Radiographic Characterization of the Effect of rhBMP-2 on Structural Allografts.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Vikas V Patel, MD; Rick B Delamarter, MD
- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty(ProDisc-L).
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD

- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Comparison of sagittal and coronal alignment of the cervical spine after one to three-level artificial disc replacements (ProDisc-C) versus fusion.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Cervical Disc Replacement: Longer-Term (2-year) Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis. Rick B Delamarter, MD, Hyun W Bae, MD, Michael A Kropf, MD, Linda EA Kanim, MS, Ben B Pradhan, MD, MSE
- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome.
 BB Pradhan, MD MSE; Brian Rudin,MD; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Evish Kamrava, MS; Vikas V. Patel, MA MD; Rick B. Delamarter, MD
- American Association of Neurological Surgeons Annual Meeting, San Francisco, CA, April 2006. Comparison of Motion at Treated and Untreated Adjacent Segments after Single to Three-Level Disc Replacement Versus Fusion in the Cervical Spine.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- 66. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty(ProDisc-L). Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD
- American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Comparison of sagittal and coronal alignment of the cervical spine after one to three-level artificial disc replacements (ProDisc-C) versus fusion.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA;

Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD

- 68. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Motion-Preserving Dynamic Posterior Stabilization of the Lumbar Spine: Early Results from the US Clinical Trial with the Dynesys System – Poster Hyun W. Bae, MD; Ben B Pradhan, MD MSE; Linda E.A. Kanim, MS; Rick B. Delamarter, MD
- 69. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Total Disc Replacement Versus Fusion as a Salvage Treatment for Failed Back Surgery Syndrome – Poster Rick B Delamarter, MD; Brian Rudin, MD; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Evish Kamrava, MS; Vikas V. Patel, MD; Ben B Pradhan, MD MSE
- 70. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Bone Morphogenetic Protein-2 Retention in a Vertebral Body Fracture Stabilization Device (OptiMesh) – Poster HW Bae MD, **BB Pradhan** MD, L Zhao MD PhD, P Wong MPF, LEA Kanim MA, RB Delamarter MD

- American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Cervical Disc Replacement – Longer-Term (2-year) Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis. RB Delamarter MD, HW Bae MD, LEA Kanim MS, **BB Pradhan**, MD MSE
- American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. Comparison of Motion at Treated and Untreated Adjacent Segments after Single to Three-Level Disc Replacement Versus Fusion in the Cervical Spine.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- 73. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. The Effect of Workman's Compensation Status on Outcomes after Lumbar Total Disc Replacement.

Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD

- American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006.
 2-3 Year Lumbar Disc Replacement Results (ProDisc-L) from the US IDE Clinical Trials Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- 75. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. State of Lumbar Disc Replacement with the ProDisc-L Device. Ben B Pradhan, MD MSE
- Annual Symposium on Spinal Disorders, Cedars Sinai Medical Center, Las Vegas, NV, Mar 2006. Cervical Artificial Disc Replacement with ProDisc-C.
 Ben B Pradhan, MD, MSE
- Annual Symposium on Spinal Disorders, Cedars Sinai Medical Center, Las Vegas, NV, Mar 2006. Lumbar Artificial Disc Replacement with ProDisc-L.
 Ben B Pradhan, MD, MSE
- Society of Interventional Radiology, Annual Meeting, Toronto, Canada, Apr 2006. Results of Vertebroplasty and Kyphoplasty with CORTOSS BB Pradhan MD MSE, HW Bae, P Maurer, et al.
- Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005. Cervical Disc Replacement: Longer-Term (2-year) Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis. Rick B Delamarter, MD, Hyun W Bae, MD, Michael A Kropf, MD, Linda EA Kanim, MS, Ben B Pradhan, MD, MSE
- Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005.
 Worst Case Scenario for BMP-2 Mediated Gene Therapy in Posterolateral Fusion.
 Hyun W Bae, MD, Li Zhao, MD, PhD, Ben B Pradhan, MD, MSE, Pamela Wong, BS, Linda EA Kanim, MA, Jeffrey C Wang, MD, Rick B Delamarter, MD
- 81. Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005.

Bone Marrow Enhances the Performance of rhBMP-2. **Ben B Pradhan,** MD, MSE, Hyun W Bae, MD, Li Zhao, MD, PhD, Pam Wong, BS, Jeffrey C Wang, MD, Rick B Delamarter, MD

- Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005. Analysis of rhBMP-2 Retention in Absorbable Collagen Sponges and Diffusion Patterns in a Simulated in vivo Environment. Hyun W Bae, MD, Rick B Delamarter, MD, Li Zhao, MD, PhD, Pamela Wong, BS, Linda EA Kanim, MS, Ben B Pradhan, MD, MSE
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-L) – Poster Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Michael A. Kropf, MD; Rick B. Delamarter, MD
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Cervical Disc Replacement – 2 to 3-year Range of Motion and Clinical Outcome with the ProDisc-C Prosthesis – Poster RB Delamarter MD, HW Bae MD, LEA Kanim MS, BB Pradhan MD MSE
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Lumbar Total Disc Replacement: A 2 To 3 Year Report From The United States Clinical Trial For The ProDisc-L Prosthesis – Poster HW Bae, MD; BB Pradhan, MD MSE; LEA Kanim, MA; RB Delamarter, MD
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Sagittal and Coronal Cervical Spine Alignment after 1 to 3-level Disc Replacement: 2-Year Follow-Up – Poster
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- 87. American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Motion Analysis at Treated and Untreated Levels after Single and Multi-Level Cervical Disc Replacement – Poster
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Linda EA Kanim, MA; Rick B Delamarter, MD
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, Mar 2006. Comparison Of Outcomes After Lumbar Artificial Disc Replacement Surgery In Worker's Compensation Versus Non-Compensation Patients RB Delamarter MD, L Lam MPH, HW Bae MD, BB Pradhan MD MSE
- Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005. Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-L)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda Lam, MPH; Michael A. Kropf, MD; Evish Kamrava, MD; Rick B. Delamarter, MD
- Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005. Graft Resorption with rhBMP-2 in Anterior Cervical Diskectomy and Fusion: A Radiographic Characterization of the Effect of rhBMP-2 on Structural Allografts.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Vikas V Patel, MD; Rick B Delamarter, MD
- 91. Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005.

Lumbar Total Disc Replacement: A 2 To 3 Year Report From 2 Centers In The United States Clinical Trial For The ProDisc-II Prosthesis. RB Delamarter MD; JE Zigler MD; DD Ohnmeiss PhD; LEA Kanim MA; **BB Pradhan** MD MSE

- Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty(ProDisc-L).
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD
- 93. Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005. Motion-Preserving Dynamic Posterior Stabilization of the Lumbar Spine: Early Results from the US Clinical Trial with the Dynesys System.
 Ben B Pradhan, MD MSE; Jason Huffman, MD; Hyun W. Bae, MD; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 94. Scoliosis Research Society Annual Meeting, Miami, FL, Oct 2005. 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.
 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
- 95. North American Spine Society, Annual Meeting, Philadelphia, PA 2005. Assessment of the Accuracy of In-Vivo Placement of Artificial Discs in the Lumbar Intervertebral Space using Computed Tomography, Along with its Radiographic and Clinical Consequences. VV Patel MA MD, **BB Pradhan** MD MSE, C Andrews MD, HW Bae MD, LEA Kanim MS, RB Delamarter MD
- 96. North American Spine Society, Annual Meeting, Philadelphia, PA 2005. 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. **BB Pradhan** MD MSE, HW Bae MD, MA Kropf MD, VV Patel MA MD, L Zhao MD PhD, P Wong BS, RB Delamarter MD
- 97. North American Spine Society, Annual Meeting, Philadelphia, PA 2005. Comparison Of Outcomes After Lumbar Artificial Disc Replacement Surgery In Worker's Compensation Versus Non-Compensation Patients. RB Delamarter MD, L Lam MPH, HW Bae MD, BB Pradhan MD MSE
- North American Spine Society, Annual Meeting, Philadelphia, PA 2005. Graft resorption with rhBMP-2 in Anterior Cervical Diskectomy and Fusion: a radiographic characterization of the effect of rhBMP-2 on structural allografts.
 BB Pradhan MD MSE, HW Bae MD, MA Kropf MD, VV Patel MA MD, RB Delamarter MD
- 99. North American Spine Society, Annual Meeting, Philadelphia, PA 2005. Lumbar Total Disc Replacement: A 2 To 3 Year Report From 2 Centers In The United States Clinical Trial For The Prodisc-II Prosthesis RB Delamarter MD, J Zigler MD, D Ohnmeiss PhD, LEA Kanim MS, BB Pradhan MD MSE
- 100.North American Spine Society, Annual Meeting, Philadelphia, PA 2005.Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome.RB Delamarter MD, B Rudin MD, HW Bae MD, BB Pradhan MD MSE
- 101.North American Spine Society, Annual Meeting, Philadelphia, PA 2005.

Cervical Disc Replacement – Intermediate-Term Follow-Up (1 to 2 years) of Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis. RB Delamarter MD, HW Bae MD, LEA Kanim MS, L Lam MPH, **BB Pradhan** MD MSE

- 102.North American Spine Society, Annual Meeting, Philadelphia, PA 2005.
 Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty (ProDisc-II). **BB Pradhan** MD MSE, HW Bae MD, LEA Kanim MS, E Kamrava MS, RB Delamarter MD
- 103.North American Spine Society, Annual Meeting, Philadelphia, PA 2005.
 Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-II).
 BB Pradhan MD MSE, HW Bae MD, MA Kropf MD, LEA Kanim MS, RB Delamarter MD
- 104. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Lumbar Total Disc Replacement: A 2 To 3 Year Report From The United States Clinical Trial For The Prodisc-II Prosthesis.
 HW Bae, MD; BB Pradhan, MD MSE; LEA Kanim, MA; L Lam, MPH; E Kamrava, MS; RB Delamarter, MD
- 105. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome BB Pradhan, MD MSE; Brian Rudin, MD; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Evish Kamrava, MS; Vikas V. Patel, MA MD; Rick B. Delamarter, MD
- 106. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Computed Tomography Evaluation of Positioning of Artificial Discs, Along with its Radiographic and Clinical Relevance Vikas V. Patel, MA MD; Carol Andrews, MD; Hyun W. Bae, MD; Linda EA Kanim, MS; **Ben B. Pradhan**, MD MSE; Rick B. Delamarter, MD
- 107. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Controlling Bone Morphogenetic Protein Stimulated Bone Growth with Fibrin Glue (a Biologic Sealant)
 Vikas V. Patel, MA MD; Li Xao, MD PhD; Pamela Wong, BS; Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Rick B. Delamarter, MD
- 108. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Recovery of Function Following Experimental Lumbar Spinal Cord Injury in Rats: Effectiveness of Treatment with rhBMP-2, rhBMP-7, and rhBDNF.
 Hyun W. Bae, MD; Li Zhao, MD PhD; Linda E.A. Kanim, MS; Pamela Wong, BS; Parveen Sra, MPH; Ben B. Pradhan, MD MSE; Rick B. Delamarter, MD
- 109. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Biomechanical Evaluation of Floating and Fixed Center of Rotation Total Disc Replacements. VV Patel MA MD, S Hsu MD, HW Bae MD, **BB Pradhan** MD MSE, T Hedman PhD, RB Delamarter MD
- 110. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Comparison Of Outcomes In Workers Compensation Versus Non-Compensation Patients After Artificial Disc Replacement Surgery.
 HW Bae MD, L Lam MPH, P Wong BS, **BB Pradhan** MD MSE, M Kropf MD, RB Delamarter MD
- 111. World Spine III, Rio De Janeiro, Brazil, Aug 2005.

ProDisc-C Artificial Total Cervical Disc Replacement: Twelve to Eighteen Month Results from the United States Clinical Trial **Ben B Pradhan**, MD MSE, Hyun W Bae, MD, Vikas V Patel, MD MA, Linda EA Kanim, MA, Michael A Kropf, MD, Rick B Delamarter, MD

- 112. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-II).
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Michael A. Kropf, MD; Evish Kamrava, MS; Rick B. Delamarter , MD
- 113. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Dynamic Posterior Stabilization of the Lumbar Spine: Early Results from the US Clinical Trial with the Dynesys System.
 Jason Huffman, MD; Hyun W. Bae, MD; Ben B. Pradhan, MD MSE; Linda E.A. Kanim, MS; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 114. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Leakage of rhBMP-2 from absorbable collagen sponges during ACDF: quantification and followup with radiographic analysis
 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
- 115. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty (ProDisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD
- 116. World Spine III, Rio De Janeiro, Brazil, Aug 2005.
 Graft resorption with rhBMP-2 in Anterior Cervical Diskectomy and Fusion: a radiographic characterization of the effect of rhBMP-2 on structural allografts.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Rick B Delamarter, MD
- 117. World Spine III, Rio De Janeiro, Brazil, Aug 2005. Graft Resorption With Recombinant Human Bone Morphogenetic Protein-2: Lessons From Anterior Lumbar Interbody Fusion Using Stand-Alone Femoral Ring Allografts Ben B. Pradhan, MD; MSE, Hyun W. Bae, MD; Vikas V. Patel, MD; Rick B. Delamarter, MD
- 118. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Recovery of Function Following Experimental Lumbar Spinal Cord Injury in Rats: Effectiveness of Treatment with rhBMP-2, rhBMP-7, and rhBDNF HW Bae, Li Zhao, LEA Kanim, P Wong, P Sra, **BB Pradhan**, RB Delamarter
- 119. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Graft resorption with rhBMP-2 in ACDF: a radiographic characterization of the effect of BMP on structural allografts.
 Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Rick B Delamarter, MD
- 120. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Dynamic Posterior Stabilization Of The Lumbar Spine: Early Results From The US Clinical Trial With The Dynesys System Jason Huffman, MD; Hyun W. Bae, MD; **Ben B. Pradhan**, MD MSE; Linda E.A. Kanim, MS; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 121. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005.

Comparison Of Outcomes In Worker's Compensation Versus Non-Compensation Patients After Lumbar Artificial Disc Replacement Surgery RB Delamarter MD, L Lam MPH, **BB Pradhan** MS MSE, HW Bae MD

- 122. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Leakage of BMP from absorbable collagen sponges during ACDF: quantification and CT analysis for ectopic bone formation in canal **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
- 123. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome **BB Pradhan**, Brian Rudin, HW Bae, LEA Kanim, VV Patel, E Kamrava, RB Delamarter
- 124. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Total Disc Replacement (Prodisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Michael Kropf, MD; Evish Kamrava, MD; Rick B. Delamarter, MD
- 125. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Cellular Environments Can Alter Performance of rhBMP-2 and Induce Pseudarthrosis HW Bae, LEA Kanim, Li Zhao, P Wong, **BB Pradhan**, RB Delamarter
- 126. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Cervical Disc Replacement – Longer-Term Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis. RB Delamarter MD, HW Bae MD, E Kamrava MS, L Lam MPH, LEA Kanim MS, **BB Pradhan**, MD MSE
- 127. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005.
 Lumbar Total Disc Replacement: A 2 To 3 Year Report From The United States Clinical Trial For The Prodisc-II Prosthesis
 HW Bae, MD; BB Pradhan, MD MSE; LEA Kanim, MA; L Lam, MPH; E Kamrava, MS; RB Delamarter, MD
- 128.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Comparison Of Outcomes After Lumbar Artificial Disc Replacement Surgery In Worker's Compensation Versus Non-Compensation Patients. RB Delamarter MD, HW Bae MD, L Lam MPH, BB Pradhan MD MSE
- 129.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Lumbar Total Disc Replacement: A 2 To 3 Year Report From 2 Centers In The United States Clinical Trial For The ProDisc-II Prosthesis. RB Delamarter MD; JE Zigler MD; DD Ohnmeiss PhD; LEA Kanim MA; BB Pradhan MD MSE
- 130.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Recovery or function following experimental Lumbar Spinal Cord Injury in Rats: Effectiveness of Treatment with rhBMP-2, rhBMP-7, and rhBDNF. HW Bae MD, Li Zhao MD PhD, LEA Kanim MS, P Wong BS, P Sra MPH, **BB Pradhan** MD MSE RB Delamarter MD. (Whitecloud Basic Science Research Award Finalist)
- 131.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Total Disc Replacement Versus Fusion as a Salvage Treatment for Failed Back Surgery Syndrome.

Ben B Pradhan, MD MSE; Hyun W. Bae, MD; Brian Rudin, MD; Michael A Kropf, MD; Vikas V. Patel, MD; Rick B Delamarter, MD

- 132.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Motion-Preserving Dynamic Posterior Stabilization of the Lumbar Spine: Early Results from the US Clinical Trial with the Dynesys System Ben B Pradhan, MD MSE; Jason Huffman, MD; Hyun W. Bae, MD; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 133.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Biomechanical Evaluation of floating versus fixed center-of-rotation total disc replacements. VV Patel MA MD, S Hsu MD, HW Bae MD, BB Pradhan MD MSE, T Hedman PhD, RB Delamarter, MD.
- 134.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Size does matter: pedicle screw head size affects adjacent level facet joint biomechanics. VV Patel MA MD, T Baldini MS, BB Pradhan MD MSE, J Bach PhD
- 135.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. 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 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
- 136.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Graft Resorption with rhBMP-2 in Anterior Cervical Diskectomy and Fusion: A Radiographic Characterization of the Effect of rhBMP-2 on Structural Allografts. Ben B Pradhan, MD MSE; Hyun W Bae, MD; Michael A Kropf, MD; Vikas V Patel, MD; Rick B Delamarter, MD
- 137.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Cervical Disc Replacement – Longer-Term (1 to 2-year) Range of Motion and Clinical Outcomes Follow-Up with the ProDisc-C Prosthesis
 HW Bae MD, **BB Pradhan** MD MSE, E Kamrava MS, MA Kropf MD, L Lam MPH, RB Delamarter MD
- 138.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty (ProDisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD
- 139.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Disc Height Restoration and its Effect on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda Lam, MPH; Michael A. Kropf, MD; Evish Kamrava, MD; Rick B. Delamarter , MD
- 140.International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005. Cellular Environments Can Alter Performance of rhBMP-2 and Induce Pseudarthrosis HW Bae, LEA Kanim, Li Zhao, P Wong, **BB Pradhan**, RB Delamarter (Whitecloud Basic Science Research Award Finalist)
- 141.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005. Artificial Disc Replacement as a Salvage Treatment for Failed Back Surgery Syndrome.

B Rudin MD, **BB Pradhan** MD MSE, HW Bae MD, L Kanim MS, E Kamrava MS, VV Patel MA MD, RB Delamarter MD

- 142.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Clinical Results After Lumbar Total Disc Replacement: A 2 to 3 Year Report From the United States Clinical Trial for the ProDisc-II Prosthesis.
 HW Bae MD, **BB Pradhan** MD MSE, L Kanim MS, L Lam MPH, E Kamrava MS, RB Delamarter MD
- 143.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Recovery Of Function Following Experimental Lumbar Spinal Cord Injury In Rats: Effectiveness Of Treatment With rhBMP-2, rhBMP-7, And rhBDNF.
 HW Bae MD, L Zhao MD PhD, L Kanim MS, P Wong BS, P Sra MPH, **BB Pradhan** MD MSE, RB Delamarter MD
- 144.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Controlling Bone Morphogenetic Protein With Fibrin Glue.
 VV Patel MA MD, L Zhao MD PhD, P Wong BS, BB Pradhan MD MSE, HW Bae MD, RB Delamarter MD
- 145.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Comparison Of Outcomes In Workers Compensation Versus Non-Compensation Patients After Artificial Disc Replacement Surgery.
 HW Bae MD, L Lam MPH, P Wong BS, **BB Pradhan** MD MSE, M Kropf MD, RB Delamarter MD
- 146.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Post-Op And Follow-Up CT Evaluation Of Artificial Disc Replacement: Excellent Outcomes Even With Positional Deviation.
 VV Patel MA MD, C Andrews MD, L Kanim MS, **BB Pradhan** MD MSE, M Kropf MD, HW Bae MD, RB Delamarter MD
- 147.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Controlling Bone Morphogenetic Protein-Stimulated Bone Growth.
 VV Patel MA MD, L Zhao MD PhD, P Wong BS, **BB Pradhan** MD MSE, HW Bae MD, RB Delamarter MD
- 148.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005. Computed Tomography Evaluation Of Positioning Of Artificial Discs, Along With Its Radiographic And Clinical Relevance.
 VV Patel MA MD, C Andrews MD, HW Bae MD, L Kanim MS, **BB Pradhan** MD MSE, RB Delamarter MD
- 149.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.
 Biomechanical Evaluation Of Floating (Charite) Versus Fixed Center Of Rotation (ProDisc) Total Disc Replacements.
 VV Patel MA MD, S Hsu MD, HW Bae MD, BB Pradhan MD MSE, T Hedman PhD, RB Delamarter MD
- 150.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005. Disc Height Restoration And Its Effect On Range Of Motion And Clinical Outcome After Semi-Constrained Total Disc Replacement (ProDisc-II). **BB Pradhan** MD MSE, HW Bae MD, L Kanim MS, L Lam MPH, M Kropf MD, E Kamrava MS, RB Delamarter MD
- 151. International Society for Surgery of the Lumbar Spine, New York, NY, May 2005.

Dynamic Posterior Stabilization of the Lumbar Spine: Early Results From the US Clinical Trial with the Dynesys System.

J Huffman MD, HW Bae MD, **BB Pradhan** MD MSE, L Kanim MS, L Lam MPH, B Rudin MD, RB Delamarter MD

- 152. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Effect of Disc Height Restoration on Range Of Motion and Clinical Outcome After Semi-Constrained Lumbar Total Disc Replacement (ProDisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Michael A. Kropf, MD; Evish Kamrava, MD; Rick B. Delamarter, MD
- 153.Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Lumbar Total Disc Replacement: A 2 To 3 Year Report From 2 Centers In The United States Clinical Trial For The Prodisc-II Prosthesis.
 JE Zigler, MD; RB Delamarter, MD; DD Ohnmeiss, PhD; LEA Kanim, MA; **BB Pradhan**, MD MSE
- 154. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Comparison Of Outcomes After Lumbar Artificial Disc Replacement Surgery In Worker's Compensation Versus Non-Compensation Patients
 RB Delamarter MD, L Lam MPH, HW Bae MD, BB Pradhan MD MSE
- 155.Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Cervical Disc Replacement Intermediate-Term Follow-Up (1 to 2 years) of Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis
 RB Delamarter MD, HW Bae MD, E Kamrava MS, L Lam MPH, LEA Kanim MS, **BB Pradhan**, MD MSE
- 156.Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Restoration and Maintenance of Coronal and Sagittal Lumbar Spinal Alignment with a Semi-Constrained Multi-level Lumbar Total Disc Arthroplasty (ProDisc-II)
 Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Evish Kamrava, MD; Rick B. Delamarter, MD
- 157.Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Biomechanical evaluation of floating (Charite III) versus fixed (ProDisc-L) center of rotation total disc replacements.
 VV Patel MD MA, S Hsu MD, BB Pradhan MD MSE, HW Bae MD, T Hedman PhD, RB Delamarter MD.
- 158. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.
 Motion-Preserving Dynamic Posterior Stabilization Of The Lumbar Spine: Early Results From The Us Clinical Trial With The Dynesys System
 Ben B Pradhan, MD MSE; Jason Huffman, MD; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Linda Lam, MPH; Brian Rudin, MD; Rick B. Delamarter, MD
- 159.Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005. Artificial Disc Replacement as a Salvage Treatment for Failed Back Syndrome

Rick B Delamarter, MD; Brian Rudin, MD; Hyun W. Bae, MD; Linda E.A. Kanim, MS; Evish Kamrava, MS; Vikas V. Patel, MD; **Ben B Pradhan**, MD MSE

- 160.Indian Medical Association of Los Angeles, Beverly Hills, CA, Mar 2005. Kyphoplasty – Modern Managament of Osteoporotic Compression Fractures. BB Pradhan, MD MSE
- 161.EBI Spine Symposium, San Diego, CA, Mar 2005. Cervical Disc Replacement – Clinical Experience BB Pradhan, MD MSE; HW Bae, MD; MA Kropf, MD; RB Delamarter, MD
- 162.International Society for Surgery of the Lumbar Spine, New York, NY, May 2005. Restoration and Maintenance of Coronal and Sagittal Spinal Alignment with a Semi-Constrained Multi-Level Total Disc Arthroplasty (ProDisc-II) **BB Pradhan** MD MSE, HW Bae MD, L Kanim MS, E Kamrava MS, RB Delamarter MD
- 163. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005. Leakage of rhBMP-2 from Absorbable Collagen Sponges during use in Anterior Cervical Discectomy and Fusion: Quantification by Assay and Radiographic Follow-up **Pradhan BB**, Bae HW, Kropf MA, Patel VV, Zhao L, Wong P, Delamarter RB
- 164. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005. Resorption of Grafts and Vertebral Endplates in Anterior Cervical Discectomy and Fusion using rhBMP-2 – Implications on Fusion Pradhan BB, Bae HW, Kropf MA, Patel VV, Delamarter RB
- 165. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005. Increased Risk for Nonunion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts when using rhBMP-2 Pradhan BB, Bae HW, Delamarter RB, Patel VV, Dawson EG
- 166. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005. ProDisc-C Artificial Total Cervical Disc Replacement: Twelve to Eighteen Month Results from the United States Clinical Trial Ben B Pradhan, MD MSE, Hyun W Bae, MD, Vik V Patel, MD MA, Linda EA Kanim, MA, Michael A Kropf, MD, Rick B Delamarter, MD
- 167. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005. ProDisc-II Artificial Total Lumbar Disc Replacement: Two to Three Year Results from the United States Clinical Trial Ben B Pradhan, MD MSE, Hyun W Bae, MD, LEA Kanim, MA, Rick B Delamarter, MD
- 168. American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Phoenix, AZ, Mar 2005.
 BMP Modulation using Fibrin Glue in Spinal Fusion.
 VV Patel, L Zhou, P Wong, **BB Pradhan**, HW Bae, RB Delamarter
- 169.Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts?

BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD

- 170.Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005.The Effect of Toradol on Lumbar Spinal Fusion When Used Perioperatively for Pain Control.**BB Pradhan**, MD MSE; CA Kuhns, MD; JC Wang, MD; EG Dawson, MD
- 171.Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005.
 Kyphoplasty Reduction of Vertebral Compression Fractures Correction of Local Deformity
 Versus Overall Sagittal Alignment
 BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD
- 172. Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005. Leakage of rhBMP-2 from Absorbable Collagen Sponges during use in Anterior Cervical Discectomy and Fusion: Quantification by Assay and Radiographic Follow-up. **BB Pradhan**, MD MSE; HW Bae, MD; VV Patel, MD; MA Kropf, MD; L Zhao, MD PhD; P Wong, BS; RB Delamarter, MD
- 173.Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005. Characterization of Anterior Cervical Diskectomy and Fusion Using Fibular Allogfraft and rhBMP-2.

BB Pradhan, MD MSE; HW Bae, MD; VV Patel, MD; MA Kropf, MD; L Zhao, MD PhD; P Wong, BS; RB Delamarter, MD

- 174.Orthopaedic Research Society Annual Meeting, Washington, DC, Feb 2005.Cellular Environments Alter Performance of rhBMP-2 and Induce Pseudarthrosis.Hyun W Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, **BB Pradhan** MD MSE, RB Delamarter MD
- 175. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? **BB Pradhan** MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD
- 176. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005.
 Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment.
 BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD15.
- 177. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005. Toradol use for Post-Operative Pain Control in Spine Patients -- Does it Really Affect Fusion Rates? **BB Pradhan**, MD MSE; CA Kuhns, MD; JC Wang, MD; EG Dawson, MD
- 178. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005. Total Disc Arthroplasty as a Salvage Treatment for Failed Back Syndrome **BB Pradhan**, MD MSE; B Rudin, MD; HW Bae, MD; LEA Kanim, MS; E Kamrava, MS; VV Patel, MD; RB Delamarter, MD
- 179. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005.BMP Modulation using Fibrin Glue in Spinal Fusion.VV Patel, L Zhou, P Wong, BB Pradhan, HW Bae, RB Delamarter
- 180. American Academy of Orthopaedic Surgeons Annual Meeting, Washington, DC, Feb 2005.

Treatment Efficacy of BMP-2 and BMP-7 in Functional Recovery after Spinal Cord Injury in Rats.

BB Pradhan MD MSE for HW Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, P Sra MPH, RB Delamarter MD

 Zimmer Course on Posterior Lumbar Dynamic Stabilization (DYNESYS), Santa Monica, CA, Jan 2005.

Clinical and Regulatory Aspects of the DYNESYS System and Clinical Results **BB Pradhan**, MD MSE; HW Bae, MD; RB Delamarter, MD

- 182. Cervical Spine Research Society Annual Meeting, Boston, MA, Dec 2004. Leakage of rhBMP-2 from Absorbable Collagen Sponges during use in Anterior Cervical Discectomy and Fusion: Quantification by Assay and Radiographic Follow-up. BB Pradhan, MD MSE; HW Bae, MD; VV Patel, MD; MA Kropf, MD; L Zhao, MD PhD; P Wong, BS; RB Delamarter, MD
- 183. Cervical Spine Research Society Annual Meeting, Boston, MA, Dec 2004. BMP Modulation using Fibrin Glue in Spinal Fusion. VV Patel, L Zhou, P Wong, **BB Pradhan**, HW Bae, RB Delamarter
- 184. Cervical Spine Research Society Annual Meeting, Boston, MA, Dec 2004. Cellular Environments Alter Performance of rhBMP-2 and Induce Pseudarthrosis. Hyun W Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, **BB Pradhan** MD MSE, RB Delamarter MD
- 185. North American Spine Society Annual Meeting, Chicago, IL, Nov 2004. Cellular Environments Can Alter Performance of rhBMP-2 and Induce Pseudarthrosis BB Pradhan, MD, for HW Bae, MD; LEA Kanim, MS; Li Zhao, MD PhD; P Wong, BS; RB Delamarter, MD
- 186. North American Spine Society Annual Meeting, Chicago, IL, Nov 2004. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? **BB Pradhan** MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD
- 187. North American Spine Society Annual Meeting, Chicago, IL, Nov 2004. BMP Modulation using Fibrin Glue in Spinal Fusion. VV Patel, L Zhou, P Wong, **BB Pradhan**, HW Bae, RB Delamarter
- 188. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? **BB Pradhan** MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD
- 189. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD
- 190. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Toradol use for Post-Operative Pain Control in Spine Patients -- Does it Really Affect Fusion Rates? **BB Pradhan**, MD MSE; JC Wang, MD; EG Dawson, MD

- 191. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Cervical Spine Motion after Disc Replacement. VV Patel MD, BB Pradhan MD MSE, HW Bae MD, RB Delamarter MD
- 192. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Controlling BMP-Stimulated Bone Growth using Fibrin Glue. VV Patel, L Zhao, BB Pradhan, HW Bae, RB Delamarter
- 193. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Computed Tomography Evaluation of Intervertebral Prosthesis. VV Patel, C Andrews, LEA Kanim, **BB Pradhan**, MA Kropf, HW Bae, RB Delamarter
- 194. Western Orthopaedic Association Annual Meeting, San Francisco, CA Sept 2004. Artificial Disc Replacement in the Lumbar Spine – 18 to 24 Month Follow-up BB Pradhan, HW Bae, LEA Kanim, MA Kropf, RB Delamarter
- 195. EBI Minimally Invasive Course for Spine Surgeons, Santa Monica, CA, Sept 2004. Minimally Invasive Transforaminal Lumbar Interbody Fusion. BB Pradhan, MD MSE; HW Bae, MD
- 196. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts? **BB Pradhan** MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD
- 197. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004. Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment. BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD
- 198. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004.
 BMP Modulation using Fibrin Glue in Spinal Fusion.
 VV Patel, L Zhou, P Wong, BB Pradhan, HW Bae, RB Delamarter (Winner of the Moe Award for Best Scientific Exhibit)

RB Delamarter MD

- 199. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004. Cellular Environments Alter Performance of rhBMP-2 and Induce Pseudarthrosis. BB Pradhan MD MSE, Hyun W Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, RB Delamarter MD
- 200. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004. Treatment Efficacy of BMP-2 and BMP-7 in Functional Recovery after Spinal Cord Injury in Rats.
 BB Pradhan MD MSE, HW Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, P Sra MPH,
- 201. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004.
 Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment.
 BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD
- 202. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004. Can rhBMP-2 Enhance Fusion in Anterior Lumbar Interbody Fusion with Stand-Alone Femoral Ring Allografts?

BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD, EG Dawson MD

- 203. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004. Cervical Spine Motion after Disc Replacement. VV Patel MD, BB Pradhan MD MSE, HW Bae MD, RB Delamarter MD
- 204. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004. Controlling BMP-Stimulated Bone Growth using Fibrin Glue. VV Patel, L Zhao, BB Pradhan, HW Bae, RB Delamarter
- 205. International Meeting for Advanced Spinal Techniques, Bermuda, Jun 2004. Computed Tomography Evaluation of Intervertebral Prosthesis. VV Patel, C Andrews, LEA Kanim, **BB Pradhan**, MA Kropf, HW Bae, RB Delamarter
- 206. International Society for Surgery of the Lumbar Spine, Porto, Portugal, Jun 2004. Toradol use for Post-Operative Pain Control in Spine Patients -- Does it Really Affect Fusion Rates?
 BB Pradhan, MD MSE; CA Kuhns, MD; EG Dawson, MD
- 207. International Society for Surgery of the Lumbar Spine, Porto, Portugal, Jun 2004.
 Kyphoplasty for Osteoporotic Vertebral Compression Fractures -- Correction of Local Kyphotic Deformity versus Overall Sagittal Alignment.
 BB Pradhan MD MSE, RB Delamarter MD, VV Patel MD, MA Kropf MD, HW Bae MD
- 208. International Society for Surgery of the Lumbar Spine, Porto, Portugal, Jun 2004. Cellular Environments Alter Performance of rhBMP-2 and Induce Pseudarthrosis. **BB Pradhan** MD MSE, Hyun W Bae MD, L Zhao MD PhD, LEA Kanim, P Wong BS, RB Delamarter MD
- 209. Spine Arthroplasty Society, Vienna Austria, May 2004. Floating and Fixed Center of Rotation Intervertebral Prostheses - Biomechanical Comparison. VV Patel, J Welcher, HW Bae, RB Delamarter, **BB Pradhan**, T Hedman
- 210. Spine Arthroplasty Society, Vienna Austria, May 2004.
 Intervertebral Prosthesis Position Evalutaed by Computed Tomography Relevance to Clinical Outcome.
 VV Patel, C Andrews, RB Delamarter, LEA Kanim, BB Pradhan, MA Kropf, HW Bae
- 211. Pediatric Orthopaedic Surgeons of North America Annual Meeting, Chicago, IL, May 2004. A Metatarsal Equivalent to the Metacarpal Index in Marfan's Syndrome? **BB Pradhan**, MD MSE; M Bhasin BA; NY Otsuka, MD
- 212. North American Spine Society Annual Meeting, San Diego, CA, Nov 2003. Posterior Lumbar Fusion: A Comparison of Intertransverse Process Fusion With and Without Concomitant Interbody Fusion. KR Payman, **BB Pradhan**, JA Youseff, JC Wang
- 213. Western Orthopaedic Association Annual Meeting, San Antonio, TX, Oct 2003. Subsequent Adjacent Level Fractures After Kyphoplasty for Osteoporotic Compression Fractures. BB Pradhan MD MSE, D Fribourg MD, RB Delamarter MD, HW Bae MD
- 214. Scoliosis Research Society Annual Meeting, Quebec City CN, Sept 2003. Toradol use for Post-Operative Pain Control in Spine Patients -- Does it Really Affect Fusion Rates?

BB Pradhan, MD MSE; CA Kuhns, MD; JC Wang, MD; EG Dawson, MD

- 215. World Spine Meeting, Chicago, IL, Aug 2003. Toradol use for Post-Operative Pain Control in Spine Patients -- Does it Really Affect Fusion Rates?
 BB Pradhan, MD MSE; CA Kuhns, MD; JC Wang, MD; EG Dawson, MD
- 216. World Spine Meeting, Chicago, IL, Aug 2003.
 Posterior Lumbar Fusion: A Comparison of Intertransverse Process Fusion With and Without Concomitant Interbody Fusion.
 KR Payman, BB Pradhan, JA Youseff, JC Wang
- 217. World Spine Meeting, Chicago, IL, Aug 2003.
 Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion
 BB Pradhan, MD MSE; JC Wang, MD
- 218. World Spine Meeting, Chicago, IL, Aug 2003. Misrepresentation of Research Publications among Orthopaedic Surgery Fellowship Applicants. MV Patel, MD; BB Pradhan, MD MSE; RA Meals, MD
- 219. North American Spine Society and Japanese Spine Research Society (Spine Across the Sea), Maui HI, Jul 2003.
 Posterior Lumbar Fusion: A Comparison of Intertransverse Process Fusion With and Without Concomitant Interbody Fusion.
 KR Payman, BB Pradhan, JA Youseff, JC Wang
- 220. Shriners Annual Westin Lectureship, Los Angeles, CA, May 2003.A Metatarsal Equivalent to the Metacarpal Index in Marfan's Syndrome?BB Pradhan, MD MSE; M Bhasin BA; NY Otsuka, MD
- 221. Southern Orthopaedic Association Annual Meeting, Washington, DC, Nov 2002. Posterior Lumbar Fusion: A Comparison of Intertransverse Process Fusion With and Without Concomitant Interbody Fusion. KR Payman, **BB Pradhan**, JA Youseff, JC Wang
- 222. Annual Spine Surgery Fellows Meeting, Spine + Science + Management, New Orleans, Nov 2002. Poster presentation.
 Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion
 BB Pradhan, MD MSE; JC Wang, MD
- 223. National Shriners Pediatric Orthopaedic Surgeons Annual Meeting, Chicago, IL, Nov 2002. A Metatarsal Equivalent to the Metacarpal Index in Marfan's Syndrome?
 BB Pradhan, MD MSE; M Bhasin BA; NY Otsuka, MD
- 224. Scoliosis Research Society Annual Meeting, Seattle WA, Sept 2002.Posterior Lumbar Fusion: A Comparison of Intertransverse Process Fusion With and Without Concomitant Interbody Fusion. KR Payman, **BB Pradhan**, JA Youseff, JC Wang
- 225. Scoliosis Research Society Annual Meeting, Seattle, WA, Sept 2002. Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion **BB Pradhan**, MD MSE; JC Wang, MD
- 226. Scoliosis Research Society Annual Meeting, Cleveland, OH, Sept 2001. Instrumented Single Level Lumbar Intervertebral Fusion: A Comparison of Anterior and Posterior Approaches. BB Pradhan, MD MSE; JA Nassar, MD; R Delamarter, MD; JC Wang, MD

- 227. Western Student Medical Research Forum, Carmel, CA, Jan 1999. Mammographic Follow-Up in an Inner City, Community Based Setting D Bhasin, MD; BB Pradhan, MD MSE; Marla Shaver MD; Anthony Disher MD
- 228. AAPI National Convention, Anaheim, CA, Jun 1999.
 A Virtual Model of a Spine Motion Segment using Computerized 3-D Finite Element Analysis.
 BB Pradhan, MD MSE; HS Sandhu, MD; JM Kabo, PhD
- 229. American Academy of Orthopaedic Surgeons Annual Meeting New Orleans, LA, Aug 1998. Misrepresentation of Research Publications among Orthopaedic Surgery Fellowship Applicants. MV Patel, MD; BB Pradhan, MD MSE; RA Meals, MD
- 230. American Academy of Otolaryngology Annual Meeting, 1996.
 An Implantable Pressure Transducing Device to Induce Growth of Morselized Bone Graft.
 BB Pradhan, MD MSE; J Seung, MD; J Michael Kabo, PhD; Joseph M Lane, MD
- 231. UCLA School of Medicine Annual Research Exposition, Los Angeles, CA, Aug 1995. An Implantable Pressure Transducing Device to Induce Growth of Morselized Bone Graft. BB Pradhan, MD MSE; J Michael Kabo, PhD; Joseph M Lane, MD
- 232. Princeton University School of Engineering and Applied Science Research Exhibition, Jan 1992. Interactive Computer 3-D Simulation of Aircraft Dynamics (Aircraft Simulator).
 BB Pradhan, BSE; R McKillip, PhD

INVITED LECTURES

- Annual Symposium on Spinal Disorders, Cedars Sinai Medical Center, Las Vegas, NV, Mar 2006. Cervical Artificial Disc Replacement with ProDisc-C. Ben B Pradhan, MD, MSE
- Annual Symposium on Spinal Disorders, Cedars Sinai Medical Center, Las Vegas, NV, Mar 2006. Lumbar Artificial Disc Replacement with ProDisc-L.
 Ben B Pradhan, MD, MSE
- American Association of Neurological Surgeons / Congress of Neurological Surgeons Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Lake Buena Vista, FL, Mar 2006. State of Lumbar Disc Replacement with the ProDisc-L Device.
 Ben B Pradhan, MD MSE
- Santa Monica TLC Lecture Series, Nov 2005. Modern and minimally invasive treatment options for neck and back conditions. Ben B Pradhan, MD MSE
- EBI Minimally Invasive Course for Spine Surgeons, Santa Monica, CA, Sept 2005. Minimally Invasive Transforaminal Lumbar Interbody Fusion.
 Ben B Pradhan, MD MSE; HW Bae, MD
- Coffee Break TV Show, Santa Monica City Hall, May 2005. Minimally invasive treatment of spinal conditions Ben B Pradhan, MD MSE
- 7. Santa Monica TLC Lecture Series, Health Care for Seniors, Santa Monica Gateway Hotel, May 2005.

Diagnosis and Treatment of Conditions in the Ageing Spine. **Ben B Pradhan**, MD MSE

- Zimmer Course on Posterior Lumbar Dynamic Stabilization (DYNESYS), Santa Monica, CA, Apr 2005. Clinical and Regulatory Aspects of the DYNESYS System and Clinical Results Ben B Pradhan, MD MSE; RB Delamarter, MD
- Kyphoplasty Modern Managament of Osteoporotic Compression Fractures, Beverly Hills, CA, Mar 2005.
 Indian Medical Association of Los Angeles Ben B Pradhan, MD MSE
- EBI Spine Symposium, San Diego, CA, Mar 2005. Cervical Disc Replacement – Clinical Experience Ben B Pradhan, MD MSE; HW Bae, MD; MA Kropf, MD; RB Delamarter, MD
- Zimmer Course on Posterior Lumbar Dynamic Stabilization (DYNESYS), Santa Monica, CA, Jan 2005.
 Clinical and Regulatory Aspects of the DYNESYS System and Clinical Results Ben B Pradhan, MD MSE; HW Bae, MD; RB Delamarter, MD
- EBI Minimally Invasive Course for Spine Surgeons, Santa Monica, CA, Sept 2004. Minimally Invasive Transforaminal Lumbar Interbody Fusion.
 Ben B Pradhan, MD MSE; HW Bae, MD
- 13. Instructional Course Lecture, IMAST, Athens, Greece Minimally Invasive Transforaminal Lumbar Interbody Fusion **Ben B Pradhan**, MD, MSE
- Dynamic Lumbar Stabilization Clinical History and Experience Zimmer Center of Excellence Lecture, Santa Monica, CA, July 2006 Ben B Pradhan, MD, MSE
- EBI Minimally Invasive Course for Spine Surgeons, Santa Monica, CA, Sept 2004. Minimally Invasive Transforaminal Lumbar Interbody Fusion.
 Ben B Pradhan, MD MSE

CURRENT RESEARCH PROJECTS

- The use of total disc replacement to correct local lumbar coronal deformities due to asymmetric disc collapse.
 BB Pradhan, MD MSE; V Patel, MD; RB Delamarter, MD; HW Bae, MD
- 2. The use of total disc replacement after microdiscectomies or previous invasive disc procedures. **BB Pradhan**, MD MSE; V Patel, MD; RB Delamarter, MD; HW Bae, MD
- 3. Spinal motion after lumbar artifical disc replacement. HW Bae, MD; **BB Pradhan**, MD MSE; LEA Kanim, MS; RB Delamarter, MD
- 4. Spinal motion after cervical artifical disc replacement. **BB Pradhan**, MD MSE; V Patel, MD; HW Bae, MD; RB Delamarter, MD
- Biomechanics of artificial spinal discs. RB Delamarter MD; HW Bae MD; VV Patel MD; BB Pradhan MD MSE

RESEARCH INTERESTS

Biomechanics of the spine, related spinal prostheses and instrumentation.