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

ORTHOPAEDIC SPINE SURGEON



Ben B. Pradhan, M.D., M.S.E. is an orthopaedic surgeon, fellowship-trained and board certified in spine surgery for the treatment of cervical, thoracic, and lumbar spinal disorders.

Dr. Pradhan began his studies at Princeton University, after graduating as valedictorian with an International Baccaluareate degree at the Washington International School in Washington, DC. He graduated from Princeton with honors from the department of Aerospace Engineering with a co-concentration in the department of Applied Mathematics as well. He went on to earn a Master of Science degree in Aerospace Engineering with honors from the UCLA Graduate School of Engineering and Applied Sciences. Later he earned his 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, as former Director of Clinical Research at THE SPINE INSTITUTE, has been extensively involved in research within the field of spine surgery. He also coordinated the spine surgery fellowship program there. Currently he heads up the spine surgery department of The RISSER ORTHOPAEDIC GROUP in Pasadena, CA. 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 and devices (artificial discs, dynamic stabilization, etc) and minimally invasive spinal surgeries. He is an active member of the American Academy of Orthopaedic Surgeon, the North American Spine Society, the Spinal Arthroplasty Society, Western Orthopaedic Association, and California Orthopaedic Association.

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

CURRICULUM VITAE

Wife: Dimple Bhasin, MD Daughter: Malini Natalia Pradhan

TRAINING

American Board of Orthopaedic Surgeons

Board Certified in Orthopaedic Spine Surgery

THE SPINE INSTITUTE, Santa Monica, Spine Surgery Fellowship

Under Edgar G Dawson, MD and Rick B Delamarter, MD 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, Scoliosis Research Society

"Transient Short-Term Local Bone Remodeling Effects of High Doses of rhBMP-2 in a Novel Preclinical Interbody Spine Fusion Model."

Bae HW, Pradhan BB, Patel VV, Toth J, Badura J, Seim H, Turner AS

43rd Annual Meeting in Salt Lake City, UT, Sept 2008.

3. 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.

4. New Investigator Recognition Award Finalist, Orthopaedic Research Society

"3 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications."

Ben B Pradhan, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter 53rd Annual Meeting in San Diego, CA, Feb 2007.

5. 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.

6. 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.

7. 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.

8. 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.

9. 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

10. 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

11. 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

12. 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

13. American Board of Orthopaedic Surgeons, Board Certified

In top 20 among national board examinees, 2003

14. 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

15. 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

16. 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

17. 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

UCLA Department of Prosthetics and Orthotics, 1993

Assistant technician Los Angeles, CA

Quidel Pharmaceuticals Company, 1989

Assistant technician San Diego, CA

PUBLICATIONS

- The Basis for Nucleus Replacement Surgery: Current Techniques, 2007.
 Nucleus Arthroplasty in Spinal Care, Book III: Surgical Techniques and Technologies Edward H Chung MD, Ben B Pradhan MD MSE, Hyun W Bae MD
- 2. Cervical Total Disc Arthroplasty 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.

3. Lumbar Total Disc Arthroplasty – 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.

4. Conventional Fluoroscopic Techniques in Spine Surgery

BB Pradhan, MD MSE

Seminars in Spine Surgery. Eds: Vaccaro and Whang, 2006

5. Imaging Techniques for the Osteoporotic Spine.

BB Pradhan, MD MSE

Seminars in Spine Surgery. Eds: Balderston and Auerbach, 2006

6. 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.

7. Osteoporosis of the spine and compression fractures.

BB Pradhan, MD

Textbook: American Academy of Orthopaedic Surgeons: Orthopaedic Board Review. Ed:JR Lieberman, 2006.

8. 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

9. 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.

10. 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.

11. 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.

12. Cervical Arthroplasty: ProDisc-C.

RB Delamarter MD, BB Pradhan MD MSE

Textbook: Spinal Arthroplasty: Preservation of Motion. Ed: AR Vaccaro MD. Elsevier, 2005.

13. 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.

14. 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.

15. 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*.

16. 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*.

17. 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

23. 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.

24. 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.

26. Surgical Management of Lumbar Disc Degeneration – Total Disc Replacement

RB Delamarter MD, BB Pradhan MD MSE

Scientific Journal: Biomechanics Magazine. May 2004.

27. 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.

28. 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.

30. The Chinese-Uighur Calendar in Tusi's Zij-I Ilkhani.

BV Dalen, PhD; ES Kennedy, PhD; MK Saiyid, MA; technical illustrations by **BB Pradhan**, MSF

Department of Mathematics, Princeton University

Textbook: Zeitschrift fur die Geschichte, Der Arabisch-Islamischen Wissenschaften, Band 11-1997 [German].

31. 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.

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.
- 38. 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
- 41. Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion. **BB Pradhan**, MD MSE; JC Wang, MD Submitted for publication.
- 42. 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.
- 43. 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.

44. 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

45. 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)

46. 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)

47. 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)

48. 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)

49. 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)

50. 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)

51. 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)

52. Restoration and maintenance of coronal and sagittal lumbar spinal alignment with a semi-constrained 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)

53. 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)

54. 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

LECTURES AND PRESENTATIONS

- American Academy of Orthopaedic Surgeons, Annual Meeting, Las Vegas, NV, Feb 2009. Effective doses of BMP-2 and BMP-7 in demineralized bone matrix products for spinal fusion. Bae HW, Zhao L, Kanim LEA, Zhu D, Yasmeh S, Pradhan BB, Delamarter RB, Hossain T, Wang JC
- 2. American Academy of Orthopaedic Surgeons, Annual Meeting, Las Vegas, NV, Feb 2009. Results from one site using Mobi-C cervical disc replacement for one and two level disc disease. **Pradhan BB**, Lotuaco R, Kanim LEA, Delamarter RB, Bae HW
- Cervical Spine Research Society Annual Meeting, Austin, TX, Dec 2008.
 Concentration of BMP2 and BMP7 predicts in vivo fusion performance of 30 lots amongst 3 different demineralized bone matrix based products (DBMs).
 Bae HW, Zhao L, Kanim LEA, Zhu D, Hossain T, Pradhan BB
- North American Spine Society, Annual Meeting, Toronto, Canada, Oct 2008.
 Transient Short-Term Local Bone Remodeling Effects of High Doses of rhBMP-2 in a Novel Preclinical Interbody Spine Fusion Model.
 Bae HW, Pradhan BB, Patel VV, Toth JM, Badura JM, Seim HB, Turner AS
- North American Spine Society, Annual Meeting, Toronto, Canada, Oct 2008.
 A Multi-Center, Randomized Controlled Prospective Clinical Study on the Safety and Efficacy of a New Bone Augmentation Material (CORTOSS) Compared to PMMA in Treating Vertebral Compression Fractures.

Bae HW, Pradhan BB, Delamarter RB

- Western Orthopaedic Association Annual Meeting, Maui, HI, July 2008.
 Variability Among 10 Production Lots of a Single Demineralized Bone Matrix (DBM) Product.
 Bae HW, Pradhan BB, Tatsumi R, Zhao L, Zhu D, Kanim L, Wang JC, Delamarter RD
- 7. Western Orthopaedic Association Annual Meeting, Maui, HI, July 2008.
 Initial Results from the USA FDA Trial Using Mobi-C Cervical Disc Replacement for the Treatment of One and Two Level Cervical Disc Disease.
 Bae HW, **Pradhan BB**, Tatsumi R, Kee K, Kanim LEA, Delamarter RB, Babbitz J
- 8. Scoliosis Research Society Annual Meeting, Salt Lake City, UT, Sept 2008.

 * (Winner of the Russell Hibbs Award for Best Basic Science Presentation)

 Transient Short Term Local Bone Remodeling Effects of High- Doses of rhBMP-2 in a Novel Preclinical Interbody Spine Fusion Model.

 Bae HW, Pradhan BB, Patel VV, Toth JM, Badura JM, Seim HB, Turner AS
- 9. International Society for Surgery of the Lumbar Spine, Geneva, Switzerland, May 2008. Transient Short-Term Local Bone Remodeling Effects of High Doses of rhBMP-2 in a Novel Preclinical Interbody Spine Fusion Model.

- Bae HW, Pradhan BB, Patel VV, Toth JM, Badura JM, Seim HB, Turner AS
- Orthopaedic Research Society Annual Meeting, San Francisco, CA, Mar 2008.
 Variability Among 10 Production Lots of a Single Demineralized Bone Matrix (DBM) Product.
 Bae HW, Zhao L, Zhy D, Kanim LEA, Thai L, Mehta G, Wang JC, Pradhan BB, Delamarter RD
- Scoliosis Research Society Annual Meeting, Monterey, CA, Sept 2006.
 Effect of Hydroxyapatite (HA) Coating on the Screw-Bone Interface in the DYNESYS System.
 Pradhan BB, Bae HW, Vishnubhotla S, Jensen LM, Dawson JM, Delamarter RB
- Cervical Spine Research Society Annual Meeting, San Francisco, CA, Dec 2007.
 Evidence of Lower Adjacent Level Changes After ProDisc-C. Compared to ACDF (Fusion).
 Ben B Pradhan, MD
- Cervical Spine Research Society Annual Meeting, San Francisco, CA, Dec 2007.
 Variability Among 10 Production Lots of a Single Demineralized Bone Matrix (DBM) Product.
 Bae HW, Zhao L, Kanim LEA, Pradhan BB
- Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007.
 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications.
 Ben B Pradhan, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter
- Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007.
 Cervical Disc Replacement: 3 to 4-Year Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis.
 RB Delamarter, HW Bae, MA Kropf, LEA Kanim, BB Pradhan
- 16. Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007. Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute Rick B Delamarter MD, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Ben B Pradhan MD MSE
- 17. Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007. Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute Rick B Delamarter MD, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Ben B Pradhan MD MSE
- Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007.
 Randomized Trial of a new Bone Cement (CORTOSS) vs. PMMA for Vertebroplasty: Prospective Results at a Single Institute
 Ben B Pradhan MD MSE, Hyun W. Bae MD
- Congress of Neurological Surgeons Annual Meeting, San Diego, CA, Sept 2007.
 Randomized Trial of a new Bone Cement (CORTOSS) vs. PMMA for Vertebroplasty: Prospective Results at a Single Institute
 Ben B Pradhan MD MSE, Hyun W. Bae MD
- 20. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury Hyun W. Bae MD, Linda E.A. Kanim MA, Ben B Pradhan MD MSE, Michael A Kropf MD, Rick B Delamarter MD
- 21. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007.

Randomized Trial of a new Bone Cement (CORTOSS) vs. PMMA for Vertebroplasty: Prospective Results at a Single Institute

Ben B Pradhan MD MSE, Hyun W. Bae MD

22. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. Single level artificial disc replacement at L4-5 versus L5-S1: Is there any difference in technique, morbidity, or result?

Cervical Disc Replacement: 3 to 4-Year Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis.

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

- 23. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. 3 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications. **Ben B Pradhan**, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter
- 24. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. Single level artificial disc replacement at L4-5 versus L5-S1: Is there any difference in technique, morbidity, or result?
 - Ben B. Pradhan MD MSE, Hyun W. Bae MD, Michael Kropf MD, Rick B. Delamarter MD
- 25. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. Effect of HydroxyApatite (HA) Coating on the Screw-Bone Interface in the DYNESYS® System. **BB Pradhan**, HW Bae, S Vishnubhotla, L Jensen, J Dawson, RB Delamarter
- 26. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute

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

- 27. International Meeting for Advanced Spinal Techniques, Paradise Island, Bahamas, July 2007. Mass Effect versus Inhibition of rhBMP-2 by Environment (Inorganic Beads versus Fibroblasts) Implications on BMP for Salvage of Pseudarthrosis or Failed Devices Ben B Pradhan MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD
- North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.
 Cervical Disc Replacement: 3 to 4-Year Range of Motion and Clinical Outcomes with the ProDisc-C Prosthesis.
 RB Delamarter, HW Bae, MA Kropf, LEA Kanim, BB Pradhan
- North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.
 L4-5 Versus L5-S1: Is One More Suited Than the Other for Lumbar Disc Arthroplasty or Fusion?
 A Multicenter, Prospective, Randomized, and Controlled Comparison.
 Ben B Pradhan MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD
- 30. North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.

 Instructional Course Lecture L4-5 Versus L5-S1: Is One More Suited Than the Other for Lumbar Disc Arthroplasty or Fusion? A Multicenter, Prospective, Randomized, and Controlled Comparison.

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

31. North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.

Variability Among 10 Production Lots of a Single Demineralized Bone Matrix Product. HW Bae, MA Kropf, LEA Kanim, **BB Pradhan**, RB Delamarter,

32. North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.
3 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications.

Ben B Pradhan, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter

33. North American Spine Society, Annual Meeting, Austin, TX, Oct 2007. Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute Ben B Pradhan MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD,

Rick B Delamarter MD

34. North American Spine Society, Annual Meeting, Austin, TX, Oct 2007.

Mass Effect versus Inhibition of rhBMP-2 by Environment (Inorganic Beads versus Fibroblasts) – Implications on BMP for Salvage of Pseudarthrosis or Failed Devices **Ben B Pradhan** MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD

35. Scoliosis Research Society Annual Meeting, Edinburgh, Scotland, Sept 2007.

The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury
Hyun W. Bae MD, Linda E.A. Kanim MA, **Ben B Pradhan** MD MSE, Michael A Kropf MD,
Rick B Delamarter MD

36. Western Orthopaedic Association Annual Meeting, San Diego, CA, July 2007.
3 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications.
Ben B Pradhan, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter

37. Western Orthopaedic Association Annual Meeting, San Diego, CA, July 2007.

The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury Hyun W. Bae MD, Linda E.A. Kanim MA, **Ben B Pradhan** MD MSE, Michael A Kropf MD, Rick B Delamarter MD

38. Western Orthopaedic Association Annual Meeting, San Diego, CA, July 2007.

3 to 4-Year Prospective Results of 1, 2, and 3-Level Cervical Arthroplasty with the ProDisc-C Device at a Single Institute.

Rep R Prodhen MD MSE, Hyun W, Rep MD, Linda E A, Konim MA, Michael A, Kronf MD.

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

Western Orthopaedic Association Annual Meeting, San Diego, CA, July 2007.
 Mass Effect versus Inhibition of rhBMP-2 by Environment (Inorganic Beads versus Fibroblasts) – Implications on BMP for Salvage of Pseudarthrosis or Failed Devices
 Ben B Pradhan MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD

40. Western Orthopaedic Association Annual Meeting, San Diego, CA, July 2007. Randomized Trial of a New Bone Cement (CORTOSS®) versus PMMA for Vertebroplasty: Prospective Results in a Single Institute. BB Pradhan, A Carino, L Kanim, H Bae

 Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.
 to 4-Year Prospective Results of 1, 2, and 3-Level Cervical Arthroplasty with the ProDisc-C Device at a Single Institute. **Ben B Pradhan** MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD

42. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute

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

43. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

L4-5 Versus L5-S1: Is One More Suited Than the Other for Lumbar Disc Arthroplasty or Fusion? A Multicenter, Prospective, Randomized, and Controlled Comparison.

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

44. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

Mass Effect versus Inhibition of rhBMP-2 by Environment (Inorganic Beads versus Fibroblasts) – Implications on BMP for Salvage of Pseudarthrosis or Failed Devices **Ben B Pradhan** MD MSE, Hyun W. Bae MD, Linda E.A. Kanim MA, Michael A Kropf MD, Rick B Delamarter MD

45. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury Hyun W. Bae MD, Linda E.A. Kanim MA, **Ben B Pradhan** MD MSE, Michael A Kropf MD, Rick B Delamarter MD

46. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

Randomized Trial of a new Bone Cement (CORTOSS) vs. PMMA for Vertebroplasty: Prospective Results at a Single Institute

Ben B Pradhan MD MSE, Hyun W. Bae MD

47. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, Berlin, Germany, May 2007.

Effect of HydroxyApatite (HA) Coating on the Screw-Bone Interface in the DYNESYS[®] System. **BB Pradhan**, HW Bae, S Vishnubhotla, L Jensen, J Dawson, RB Delamarter

- 48. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. A Biomechanical Comparison of Vertebroplasty and Kyphoplasty in Treating Vertebral Compression Fractures Through Clinical Experience in Two Pilot Studies Using CORTOSS®. **Ben B Pradhan** MD MSE, Hyun W Bae MD
- 49. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. Up to 5-Year Prospective Results of 1, 2, and 3-Level Lumbar Arthroplasty with the ProDisc-L Device at a Single Institute.

BB Pradhan MD MSE, M Kropf MD, H Bae MD, L Kanim MA, RB Delamarter MD

International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007.
 Mass Effect versus Biologic Inhibition of rhBMP-2 Activity by Cellular Environment (Inorganic Polyethylene Beads versus Fibroblasts) – Implications on use of BMP for Salvage or Pseudarthrosis or Failed Devices.

BB Pradhan, HW Bae, L Zhao, M Kropf, LEA Kanim, RB Delamarter

- 51. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. Effect of HydroxyApatite (HA) Coating on the Screw-Bone Interface in the DYNESYS® System. **BB Pradhan**, HW Bae, S Vishnubhotla, L Jensen, J Dawson, RB Delamarter
- 52. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. Variability due to Lot of a Commercially Available Demineralized Bone Matrix for Spinal Fusion. H Bae, L Zhao, L Kanim, **BB Pradhan**, P Wong, M Kropf, R Delamarter
- 53. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. The Effect of BMP's on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury. H Bae, L Zhao, **BB Pradhan**, P Wong, L Kanim, J Wang, R Delamarter
- 54. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. L4-5 versus L5-S1: Is One More Suited than the Other for Lumbar Disc Arthroplasty or Fusion? A Multicenter, Prospective, Randomized, and Controlled Comparison. BB Pradhan, HW Bae, MA Kropf, RB Delamarter
- 55. International Society for Surgery of the Lumbar Spine, Hong Kong, China, June 2007. Randomized Trial of a New Bone Cement (CORTOSS®) versus PMMA for Vertebroplasty: Prospective Results in a Single Institute.

 BB Pradhan, A Carino, L Kanim, H Bae
- 56. 7th International Symposium on Osteoporosis, Washington, DC, April 2007.
 A Biomechanical Comparison of Vertebroplasty and Kyphoplasty in Treating Vertebral Compression Fractures Through Clinical Experience in Two Pilot Studies Using CORTOSS[®].

 Ben B Pradhan MD MSE, Hyun W Bae MD
- 57. Orthopaedic Research Society Annual Meeting, San Diego, CA, Feb 2007.
 * (New Investigator Recognition Award Finalist)
 3 And 4-Level Anterior Cervical Discectomy and Fusion With rhBMP-2, Allograft, And Dynamic Plate: Fusion Rates, Subsidence, Radiographic Incorporation, And Complications.
 Ben B Pradhan, Michael S Shen, Hyun W Bae, Michael A Kropf, Rick B Delamarter
- 58. Orthopaedic Research Society Annual Meeting, San Diego, CA, Feb 2007.
 Effect of Hydroxyapatite (HA) Coating on the Screw-Bone Interface in the DYNESYS system.
 Sri Vishnubhotla, Rick B Delamarter, **Ben B Pradhan**, Hyun W Bae, Laura M Jensen, John M Dawson
- Orthopaedic Research Society Annual Meeting, San Diego, CA, Feb 2007.
 Mass Effect Versus Biologic Inhibition of rhBMP-2 Activity by Cellular Environment (Inorganic Polyethylene Beads Versus Fibroblasts) Implications on Use of BMP for Salvage of Pseudarthrosis or Failed devices.
 Ben B Pradhan, Li Zhao, LEA Kanim, Hyun W Bae, Rick B Delamarter
- 60. American Academy of Orthopaedic Surgeons, San Diego, CA, Feb 2007. Overall Results of the Prospective, Randomized Multi-Center IDE Trial of ProDisc-L vs. Lumbar Fusion. Delamarter RB, Pradhan BB, et al.
- American Academy of Orthopaedic Surgeons, San Diego, CA, Feb 2007.
 1 to 3 Level Cervical Disc Replacements Prospective Clinical Outcomes with ProDisc-C.
 Pradhan BB, Kanim LEA, Bae HW, Kropf MA, Delamarter RB
- 62. American Academy of Orthopaedic Surgeons, San Diego, CA, Feb 2007.

 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, **Ben B Pradhan**, MD, MSE, Pamela Wong, MPH, Linda EA Kanim, MS, Jeffrey C Wang, MD, Rick B Delamarter, MD
- 63. American Academy of Orthopaedic Surgeons, San Diego, CA, Feb 2007. Cervical Disc Replacement: Over 3-Year Prospective Randomized Clinical Outcomes with ProDisc-C.

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

- 64. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. The Effect of BMPs on the Expression of GAP-43 and Caspase-3 During Spinal Cord Injury. Ben B Pradhan, MD, MSE, Hyun W Bae, MD, Li Zhao, MD, PhD, Pamela Wong, MPH, Linda EA Kanim, MS, Jeffrey C Wang, MD, Rick B Delamarter, MD
- 65. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. 1 Versus 2 Versus 3-Level Cervical Artificial Disc Replacements: A Prospective Report of Clinical Outcomes with the the PRODISC-C Device.
 Ben B Pradhan, MD, MSE, Hyun W Bae, MD, Michael A Kropf, MD, Linda EA Kanim, MS, Rick B Delamarter, MD
- 66. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006. Cervical Disc Replacement: Over 3-Year Prospective Randomized 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
- 67. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006.

 Spinal Alignment After 1 to 3-Level Cervical Disc Replacement: (ProDisc-C) Versus Fusion: Segmental and Overall Coronal and Sagittal Alignment

 Rick B Delamarter MD, **Ben B Pradhan MD MSE**, Michael A Kropf MD, Hyun W Bae MD
- 68. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006.
 3 and 4-Level Anterior Cervical Fusion with rhBMP-2, Allograft, and Dynamic Plate: Fusion rates, Subsidence, Radiographic Incorporation, and Complications

 Ben B Pradhan MD MSE, Michael Shen MD, Hyun W Bae MD, Rick B Delamarter MD
- 69. Cervical Spine Research Society Annual Meeting, Palm Beach, FL, Dec 2006.

 Mass Effect versus Biologic Inhibition of rhBMP-2 Activity by Cellular Environment (Inorganic Polyethylene Beads versus Fibroblasts): Implications on use of BMP for Salvage of Pseudarthrosis or Failed Devices

Ben B Pradhan MD MSE, Hyun W Bae MD, Li Zhao MD PhD, Linda EA Kanim MA, Rick B Delamarter 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
- 72. 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. Ben B Pradhan, Rick B Delamarter, Hyun W Bae

73. Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Clinical Outcomes after 1 to 3-Level Cervical Disc Replacement with a Semi-Constrained Prosthesis.

Ben B Pradhan, Rick B Delamarter, MA Kropf, LEA Kanim, Hyun W Bae

74. Western Orthopaedic Association Annual Meeting, Santa Fe, NM, Oct 2006. Anterior Lumbar Interbody Fusion Rates In One-Year Follow-Up Of Two Level Stand-Alone BAK Cages With Adjuvant rhBMP-2. EC Spayde, HW Bae, BB Pradhan, LEA Kanim, M Schiffman, RB Delamarter

75. 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

76. 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.
 BB Pradhan, HW Bae, MA Kropf, LEA Kanim, RB Delamarter

77. 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. **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.
 * (Russell Hibbs Award for Best Basic Science Presentation Finalist)
 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

80. 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

81. 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

82. 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

83. North American Spine Society, Annual Meeting, Seattle, WA, Sept 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

84. 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

85. 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

86. North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006. 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.

87. North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.

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.

88. 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

89. North American Spine Society, Annual Meeting, Seattle, WA, Sept 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.

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

90. North American Spine Society, Annual Meeting, Seattle, WA, Sept 2006.

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

91. 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

92. North American Spine Society, Annual Meeting, Seattle, WA, 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

93. 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

94. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006.

* (Thomas Whitecloud Basic Science Research Award Finalist)

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

95. 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
- 96. 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
- 97. 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
- 98. 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
- 99. 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
- 100. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Worst Case Scenario For BMP-2 Mediated Gene Therapy In Posterolateral Fusion. Hyun W Bae, Li Zhao, **Ben Pradhan**, Pamela Wong, Linda Kanim, Jeffrey Wang, Rick Delamarter
- 101.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.
 Ben B Pradhan, Hyun Bae, Erik Spayde, Rick Delamarter
- 102. 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.
 Rick B Delamarter, Hyun W Bae, Ben B Pradhan
- 103. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006. Bone Morphogenetic Protein-2 Retention In A Vertebral Body Fracture Stabilization Device (OptiMesh). Hyun W Bae, Li Zhao, Ben Pradhan, Pamela Wong, Linda Kanim, Michael Kropf, Rick Delamarter
- 104. 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.
 Hyun W Bae, Ben B Pradhan, Linda Kanim, Michael Kropf, Rick Delamarter
- 105. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006.
 1 Versus 2 Versus 3-Level Cervical Artificial Disc Replacements A Prospective Report Of Clinical Outcomes With The ProDisc-C Device.
 Hyun W Bae, Ben B Pradhan, Linda Kanim, Michael Kropf, Rick Delamarter

106.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.

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

107. International Meeting for Advanced Spinal Techniques, Athens, Greece, Jul 2006.

* (IMAST Top Poster – Best Scientific Poster Award)

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

108. 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

109. 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

110. 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.

Hyun W Bae MD, Ben B Pradhan MD MSE, Linda EA Kanim MS, Rick B Delamarter MD

111. 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.

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

112. 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.

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

113. 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.

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

114. 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.

Ben B Pradhan MD MSE, Hyun W Bae MD, Michael A Kropf MD, Rick B Delamarter MD

115. 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

116. 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

117.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

118. 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

119.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

120.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

121.International Society for Surgery of the Lumbar Spine, Bergen, Norway, June 2006.

1 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

- 122. 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
- 123.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
- 124.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
- 125.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
- 126. 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
- 127. 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
- 128. 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
- 129. 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
- 130.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
- 131.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
- 132. 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
- 133. 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

- 134. 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
- 135.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; Rick B Delamarter, MD
- 136. 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.
 - Hyun W. Bae, MD; Ben B Pradhan, MD MSE; Linda E.A. Kanim, MS; Rick B. Delamarter, MD
- 137. 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.
 - 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
- 138. 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).
 - HW Bae MD, **BB Pradhan** MD, L Zhao MD PhD, P Wong MPF, LEA Kanim MA, RB Delamarter MD
- 139.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
- 140. 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
- 141.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
- 142. 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
- 143. 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

144. 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

145. 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

146. 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.

147. Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005.

* (CSRS Clinical Paper Award Winner)

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

148. Cervical Spine Research Society Annual Meeting, San Diego, CA, Dec 2005.

* (CSRS Basic Science Paper Award Winner)

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

149. 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

150. 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**

151. 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).

Ben B. Pradhan, MD MSE; Hyun W. Bae, MD; Michael A. Kropf, MD; Rick B. Delamarter, MD

152. 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.

RB Delamarter MD, HW Bae MD, LEA Kanim MS, BB Pradhan MD MSE

153. 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

HW Bae, MD; BB Pradhan, MD MSE; LEA Kanim, MA; RB Delamarter, MD

The ProDisc-L Prosthesis.

154. 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.

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

155.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.

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

156.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

157. 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

158. 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

159. 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

160. 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

161. 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

162. 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

163. 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

164. 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

165. 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

166. 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

167. 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

168. 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

169. 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

170. 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

171. 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

172. 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

173. 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

174. 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

175. 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

176. 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

177. 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

178. 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

179. 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

180. 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

181. 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

182. World Spine III, Rio De Janeiro, Brazil, Aug 2005.

Leakage of rhBMP-2 from absorbable collagen sponges during ACDF: quantification and follow-up 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

183. 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

184. 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

185. 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

186. 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

187. 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

188. 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

189. 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

190. 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

191. 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

192. 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

193. Western Orthopaedic Association Annual Meeting, Waikoloa, HI, Jul 2005. Cellular Environments Can Alter Performance of rhBMP-2 and Induce Pseudarthrosis 194. 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

195. 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

196. 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

197. 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

198. International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005.

* (Thomas Whitecloud Basic Science Research Award Finalist)

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)

199. 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

200. 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

201. 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.

202. 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

203. 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

204.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

205. 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

206. 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

207. 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

208. International Meeting for Advanced Spinal Techniques, Banff, Canada, Jul 2005.

* (Thomas Whitecloud Basic Science Research Award Finalist)
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)

209. 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

210. 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

211. 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

212.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

213. 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

214. 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

215. 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

216. 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

217. 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

218. 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

219. 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

220. 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

221. Spine Arthroplasty Society, Annual Global Symposium on Motion Preservation Technology, New York, NY, May 2005.

* (Leon Wiltse Best Clinical Paper Award)

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

222. 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

223. 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

224. 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

225. 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.

226. 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

227. 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

228.Indian Medical Association of Los Angeles, Beverly Hills, CA, Mar 2005.

Kyphoplasty – Modern Managament of Osteoporotic Compression Fractures.

BB Pradhan, MD MSE

229.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

230. 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

- 231.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
- 232. 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
- 233. 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
- 234. 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
- 235. 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
- 236. 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
- 237.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
- 238.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
- 239.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
- 240.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

- 241.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
- 242.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
- 243. 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
- 244. 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.
- 245. 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
- 246. 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
- 247. 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
- 248. 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
- 249. 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
- 250. 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
- 251. Cervical Spine Research Society Annual Meeting, Boston, MA, Dec 2004. BMP Modulation using Fibrin Glue in Spinal Fusion.

- 252. 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
- 253. 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
- 254. 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
- 255. 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
- 256. 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
- 257. 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
- 258. 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

- 259. 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
- 260. 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
- 261. 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
- 262. 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
- 263. 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

264. 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

265. 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

266. Scoliosis Research Society Annual Meeting, Buenos Aires, Argentina, Sept 2004.

* (John H Moe Award for Best Scientific Exhibit)

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)

267. 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

268. 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 Pate.

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

269. 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

270. 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

271. 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

272. 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

273. 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

274. 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

275. 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

276. 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

277. 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

278. 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

279. 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

280. 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

- 281. 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
- 282. 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

283. 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

284. 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

285. 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

286. 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

287. 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

288. 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

289. 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

290. Annual Spine Surgery Fellows Meeting, Spine + Science + Management, New Orleans, Nov 2002.

Loading Characteristics of Femoral Ring Allografts for Anterior Lumbar Interbody Fusion **BB Pradhan**, MD MSE; JC Wang, MD

291. 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

- 292. 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
- 293. 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
- 294. 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

295. 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

296. 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

- 297. 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
- 298. 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
- 299. 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

300. 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

2. 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

3. 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

4. Santa Monica TLC Lecture Series, Nov 2005.

Modern and minimally invasive treatment options for neck and back conditions.

Ben B Pradhan, MD MSE

5. 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

6. 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

10. 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

11. 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

- 1. Minimally invasive spinal decompression and stabilization.
- 2. Non-fusion dynamic stabilization of the spine.
- 3. Avoidance of muscle injury during spinal surgery.
- 4. Cervical and lumbar artificial disc replacement technology.
- 5. Biologic healing during spinal surgery.