

Curriculum Vitae and Bibliography

PART I: General Information

Name: Andrew P. White, M.D.

Office Address: Harvard Medical School
Beth Israel Deaconess Medical Center
Department of Orthopaedic Surgery
330 Brookline Avenue, Stoneman 10
Boston, MA 02215

Citizenship: U.S.A.

Education:

1990 - 1994 B.A. Physics Reed College

1996 - 2001 M.D. Yale University

Postdoctoral Training:

2001 – 2002 General Surgery Internship Yale-New Haven Hospital
New Haven, CT

2002 - 2006 Orthopaedic Surgery Residency Yale-New Haven Hospital
New Haven, CT

2006 – 2007 Spine Surgery Fellowship Rothman Institute, Thomas Jefferson University
Philadelphia PA

Licensure and Certification:

1998 - 2004	USMLE Parts I, II, and III	United States Medical Licensing Exam
2006	ABOS Part I, Board Eligible	American Board of Orthopaedic Surgery
2006 – Present	Registered Physician	Commonwealth of Massachusetts
2009	ABOS Part II, Board Certified	American Board of Orthopaedic Surgery

Academic Appointments:

2001 – 2006	Clinical Instructor of Orthopaedics	Yale Medical School
2007 – Present	Instructor in Orthopaedic Surgery	Harvard Medical School

Hospital or Affiliated Institution Appointments:

2007 – Present	Attending Physician	Beth Israel Deaconess Medical Center
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Major Committee Assignments:

2008 – Present	BIDMC Credentialing Committee	Beth Israel Deaconess Medical Center
2007	AO Patient Advocacy Focus Group	AO Spine North America
2008 – Present	Spine Surgery Clinical Consultant	Advance Medical Second Opinions
2009	AO Evidence Based Medicine Group	AO Spine North America

Editorial Boards:

2008 – Present	Reviewer, Journal of Neurology, Neurosurgery and Psychiatry
2009 – Present	Reviewer, ORTHOPEDICS
2009 – Present	Reviewer, Clinical Orthopaedics and Related Research

Professional Societies:

2005	American Medical Association	Member
2006	Yale Orthopaedic Association	Member
2007	American Academy of Orthopaedic Surgery	Member
2007	North American Spine Society	Member
2007	Thomas Jefferson Orthopaedic Society	Member

2008	New England Orthopaedic Society	Member
2008	Massachusetts Medical Society	Member

Awards and Honors:

- 2002 Marshal Urist Young Investigator Award, Association of Bone Joint Surgeons, Vancouver BC
- 2002 OREF Resident Research Award Presentation, New York Area Competition, New York NY
- 2004 Wayne O. Southwick Spine Resident Award, Yale Orthopaedic Association, New Haven CT
- 2004 Resident Award Presentation, 20th Smith and Nephew Research Competition, Memphis TN
- 2005 Kilfoyle Award of the New England Orthopedic Society, Boston MA
- 2005 OREF Research Award, 2nd place, New England Area Competition, Boston MA
- 2006 Connecticut Orthopaedic Society Chief Resident Research Award, Farmington CT
- 2006 OREF Resident Research Award Presentation, New York Area Competition, New York NY
- 2006 O. Donald Chrisman Award for best disputation, Yale Orthopaedic Association, New Haven, CT
- 2007 DePuy Spine Fellow Award
- 2008 Eleanor, Miles Shore 50th Anniversary Fellowship Award for Scholars in Medicine, Boston, MA

Part II: Research, Teaching, and Clinical Contributions

A. Narrative report

As an academic spine surgeon, I am involved in clinical as well as research and teaching activities. My clinical spine service at BIDMC contributes to the education of one fourth year Harvard Orthopaedic Surgery resident as well as one ACGME approved Orthopaedic Spine Surgery Fellow. I also am responsible for hosting Harvard Medical Students in my inpatient and outpatient practices. I am a regular lecturer at Harvard Medical School, where I teach both pathophysiology of spinal disorders, as well as the physical exam of the spine.

My research interests focus on the clinical applications of novel technologies in spinal surgery. I have been involved in the translational research that brought the use of Bone Morphogenic Proteins from the laboratory to the bedside over the past decade. I worked on the pre-clinical animal studies evaluating BMP-7 / OP-1 when I was a Yale Medical Student. We developed a New Zealand white rabbit model of spinal non-union in order to really put OP-1 to the test of repairing established non-unions. I also studied the gene expression associated with OP-1 non-union repair in the rabbit model to better understand why nicotine is a negative influence and why OP-1 is a positive influence. I was awarded the Marshal Urist Young Investigator Award for this work, in part. I've also tested BMP-2 in the rabbit model at Yale and done some other gene expression work to understand BMP action.

In fellowship with Drs Vaccaro and Albert in Philadelphia, I worked on the BMP-7 clinical trial in humans (posterolateral fusion for lumbar spondylolisthesis). I subsequently served as a "mock FDA panel" member to help BMP-7 manufacturer Stryker Biotech prepare for their Pre Market Approval with FDA, which was based in large part on the outcomes of the clinical trial.

B. Funding Information

- 1993 White AP. The NSF Research Experience for Undergraduates; "Diode laser spectroscopy"
- 1994 White AP, Powell JW. Reed College Research Award; "Infrared spectroscopy; DNA triplex"
- 1994 White AP, Powell JW. Howard Hughes Medical Institute Research Development Award; "Characterization of third strand dissociation in triple-stranded DNA"
- 1997 White AP. NSF Summer Research Fellowship; "Autoimmune etiology of Tourette's Syndrome"
- 1999 White AP. The Yale Medical School short-term student research award; "Epidemiological evidence for hydration status as a risk factor of Acute Mountain Sickness"
- 2000 White AP. The Yale Medical School short-term student research award; "Gene expression following lumbar spinal arthrodesis in a New Zealand White rabbit model"

- 2003 Grauer JN, Hilibrand AS, Albert TJ, White AP, Chiba K, Vaccaro AR; Stryker Biotech Research Grant “Pseudarthrosis repair with or without OP-1 in a rabbit posterolateral fusion model”
- 2003 Grauer JN and White AP. Stryker Biotech Research Grant “Gene expression during pseudarthrosis repair with or without OP-1 in a rabbit posterolateral fusion model”
- 2004 Lawrence JP, White AP, Grauer JN. “Effect of daily parathyroid hormone on lumbar fusions in a rat model”
- 2005 Lawrence JP, White AP, and Grauer JN. Medtronic Research Grant “Evaluation of BMP-2 in repair of New Zealand white rabbit lumbar pseudarthrosis”
- 2006 Krause K, White AP, Grauer JN. Yale OSR Grant “Cervical spine degeneration associated with high axial load bearing in Himalayan Sherpa porters”
- 2008 White AP, “Geriatric Specialty Care for Spinal Disorders” Eleanor and Miles Shore 50th Anniversary Fellowship Award for Scholars in Medicine, Boston, MA
- 2009 Harvard Catalyst Pilot Grant; “Brown Fat Metabolism Regulation by human recombinant Bone Morphogenic Protein Seven”

C. Report of Current Research Activities

In 2009, I received a Harvard Catalyst Grant to investigate the potential for BMP to regulate brown fat metabolism. This may have a very significant impact upon the future treatment of Type 2 diabetes and obesity, which is one of the most common causes of preventable death in the United States. My group is studying my patients who have undergone implantation of BMP for spinal fusion. We are making calorimetric measurements, as well as with FDG PET scans and serum antibody evaluations. Other arms of this project include ongoing animal studies at the Joslin Diabetes Center, as well as cellular investigations of fat biopsies obtained from my patients undergoing anterior cervical spine procedures.

My other clinical research interest are related to the treatment of geriatric spinal disorders, funded by an award from the Eleanor and Miles Shore 50th Anniversary Fellowship Award for Scholars in Medicine. A current focus of this work is to develop and investigate surgical techniques to improve safety of surgery for geriatric patients with spinal disorders. As such, minimally invasive surgery has been at the hub of these investigations, and specifically the trans-psoas approach to the lumbar spine for lateral interbody fusion. Our group is working with these new techniques to accomplish a less invasive treatment regimen. We have been able to release contractures, correct sagittal plane and coronal plane deformities, and accomplish indirect reduction and indirect decompression by ligamentotaxis using these techniques. Our modification and development of an improved method of multi-modal Intra-Operative Neuro Monitoring (IONM) of the lumbosacral plexus has improved safety. We have been able to reduce the overall surgical morbidity considerably. For example, patients have undergone combined (same day) anterior deformity correction and fusion by lateral approach followed by posterior instrumented fusion, and been able to be discharged from the hospital the following day, returning to work the following week.

D. Report of Teaching

1. Local contributions

Harvard Medical School

2007	Second year student teaching training session; Knee and Lumbar Spine Physical Examination
2007	Second year student teaching lecture; Pathophysiology of degenerative low back pain, neck pain and related neurological syndromes
2007	Second year student teaching session; Reconstruction Principles of Inflammatory and Non-inflammatory Joint Disease
2008	Harvard Medical School third year student instructor, Spine Surgery

- 2008 Harvard Medical School Lecture: “Pathophysiology of degenerative low back pain, neck pain, and related neurological syndromes”, October 29, 2008
- 2008 Harvard Medical School hands-on practical physical examination small group: “Cervical and Lumbar Spine Evaluation” October 29, 2008
- 2009 Harvard Medical School third year student instructor, Spine Surgery
- 2009 Harvard Medical School Lecture: “Degenerative Spinal Disorder Pathophysiology”, October 21, 2009
- 2009 Harvard Medical School hands-on practical physical examination small group: “Lumbar Spine Evaluation” October 19, 2009

Local Invited Teaching Presentations

- 2003 Grand Rounds Lecturer, Yale Medical School Department of Orthopaedics and Rehabilitation, New Haven CT; Bone morphology as a Platonic Ideal
- 2005 Grand Rounds Lecturer, Yale Medical School Department of Orthopaedics and Rehabilitation, New Haven, CT; Noggin, gremlin, and BMP; a burgeoning understanding of heterotopic ossification
- 2006 OREF New England Residents Research Competition, Boston MA; OP-1 and autograft induced gene expression in a rabbit pseudarthrosis repair model
- 2006 Connecticut State Orthopaedic Society annual meeting, Farmington CT; The utility of flexion – extension radiographs in evaluating the degenerative cervical spine
- 2006 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Intra-operative neurophysiologic monitoring for cervical spine surgery: State of the art tool or obfuscating distraction?
- 2006 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Update on the use of recombinant human bone morphogenetic protein in cervical spine surgery
- 2007 Grand Rounds at Thomas Jefferson University Hospital Department of Orthopaedics; Metastatic disease of the spine
- 2007 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Conflicts of interest in the Physician Industry Relationship
- 2007 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Technology update; spinal arthroplasty
- 2007 Department of Neurological Surgery visiting professor (Dr Kalfas), Neurophysiologic alerts during surgical treatment of cervical spondylotic myelopathy.
- 2007 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Technology update; intra-operative imaging for spinal surgery
- 2007 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Intramedullary tumors of the spinal axis

- 2007 Rothman Institute visiting professor (Dr Kang) presentation, Alteration in spinal cord position and neurophysiologic alerts after posterior decompression for cervical spondylotic myelopathy.
- 2007 Thomas Jefferson University Spine Series Lectureship, Philadelphia PA; Lumbar zygapophysial (facet) joint arthroplasty; conceptual development and early results
- 2007 BIDMC Needham Medical Staff Lecture; Back Surgery – Who Needs It?
- 2007 Grand Rounds Lecturer; Department of Emergency Medicine at Beth Israel Deaconess Medical Center, Boston MA; Emergency Evaluation and Management of Thoracolumbar Spine Trauma
- 2007 4th annual Spine Symposium honoring Augustus A White, III, MD PhD; Evidence Based Medicine for the Treatment of Low Back Pain; Beth Israel Deaconess Medical Center, Boston, MA Moderator
- 2007 Harvard Combined Orthopaedic Residency Core Curriculum: Spine; Brigham and Women’s Hospital, Boston, MA
- 2007 Grand Rounds Lecturer; Department of Orthopaedic Surgery at Massachusetts General Hospital, Boston MA; Metastatic Disease of the Spine, Jan 8 2008
- 2008 Harvard Combined Orthopaedic Surgery Residency Core Curriculum: Tumor; Evaluation and Treatment of Metastatic Spine Disease Brigham and Women’s Hospital
- 2008 Harvard Combined Orthopaedic Residency Core Curriculum: Spine; Brigham and Women’s Hospital, January 30 2008
- 2008 Harvard Combined Orthopaedic Residency Core Curriculum: Spine; Brigham and Women’s Hospital, May 14, 2008
- 2008 HCORP Thesis Day, Harvard Combined Orthopaedic Residency Program, June 18 2008
- 2008 Residency Didactic Lectureship; Department of Internal Medicine, Beth Israel Deaconess Medical Center; Back Surgery – Who Needs It? July 2008
- 2008 Yale Department of Orthopaedics and Rehabilitation 2008 Research Thesis Disputations Participant July 2008
- 2008 Grand Rounds Lecture at Yale Department of Orthopaedics and Rehabilitation, September 19 2008
- 2008 5th annual Spine Symposium honoring Augustus A White, III, MD PhD; Moderator: Geriatric Spine Care; Beth Israel Deaconess Medical Center, Boston, MA October 2008
- 2009 Mock FDA Panel; Osteogenic Protein 1 as a bone graft substitute in the treatment of single level lumbar degenerative spondylolisthesis, Philadelphia PA, February 3 2009
- 2009 Harvard Combined Orthopaedic Residency Core Curriculum: Spine; Brigham and Women’s Hospital, February 11 2009
- 2009 Lateral Interbody Lumbar Fusion, Medical Executive Committee Presentation, Beth Israel Deaconess Medical Center, February 18 2009

- 2009 Biologics for spinal surgery. Philadelphia PA, March 20 2009
- 2009 Mock FDA Panel; Osteogenic Protein 1 as a bone graft substitute in the treatment of single level lumbar degenerative spondylolisthesis, Boston MA March 2009
- 2009 Grand Rounds at New England Baptist Hospital Department of Orthopaedic Surgery, Boston MA. Evidence based treatment of lumbar disk herniation, lumbar spinal stenosis, and lumbar spondylolisthesis; from practice trend evaluation to federal regulation. April 1 2009.
- 2009 Far lateral interbody lumbar fusion; indications, techniques, and complications. Philadelphia PA, April 17 2009.
- 2009 Orthopaedic Care Specialists Seminar. Critical review of treatment algorithm for common lumbar spinal disorders from presentation to symptomatic resolution, a case based approach. Easton MA, May 1 2009.
- 2009 HCORP Thesis Day, Harvard Combined Orthopaedic Residency Program, June 2009
- 2009 6th annual Spine Symposium honoring Augustus A White, III, MD PhD; Governmental and Legal Influences on Delivery of Spine Care in the United States; Beth Israel Deaconess Medical Center, Boston, MA Moderator, Oct 2009

2. Regional, national, or international contributions

Regional

- 2002 OREF New York Area Residents Research Competition, New York City; Lumbar arthrodesis gene expression in rabbit model; a comparison of autologous bone graft and rhBMP-7/OP-1 alone.
- 2005 36th annual meeting of the Eastern Orthopaedic Association, Cambridge Maryland, OP-1-induced gene expression: Evaluation in a posterolateral spinal pseudarthrosis model
- 2005 New England Orthopaedic Society Meeting, the 2005 Kilfoyle Award presentation; OP-1-induced gene expression: Evaluation in a posterolateral spinal pseudoarthrosis model
- 2006 Orthopaedic Research and Education Foundation (OREF) New York Residents Research Competition Award presentation, New York City; OP-1 and autograft induced gene expression in a rabbit pseudarthrosis repair model.
- 2006 37th Eastern Orthopaedic Association meeting, Boca Raton Florida; Podium presentation; rhBMP-2 (ACS, CRM formulations) overcomes pseudarthrosis in a New Zealand white rabbit posterolateral fusion model
- 2006 37th Eastern Orthopaedic Association meeting, Boca Raton Florida; Podium presentation; The utility of flexion – extension radiographs in evaluating the degenerative cervical spine
- 2006 The Connecticut State Orthopaedic Society annual meeting, Farmington CT; The utility of flexion – extension radiographs in evaluating the degenerative cervical spine.

- 2006 Orthopaedic Research and Education Foundation (OREF) New England Residents Research Competition, Boston MA; OP-1 and autograft induced gene expression in a rabbit pseudarthrosis repair model.
- 2007 NIEC Annual meeting, Atlantic City New Jersey; Spine trauma update – state of the art care in United States Regional Spinal Cord Injury Centers
- 2007 1st annual Comprehensive Spine Review for Resident and Fellows, Musculoskeletal Education and Research Center, White Sulphur Springs, WV; Ethics and Professionalism in Spinal Surgery
- 2007 1st annual Comprehensive Spine Review for Resident and Fellows, Musculoskeletal Education and Research Center, White Sulphur Springs, WV; Medical Errors in Modern Spinal Surgery
- 2007 Globus Medical Annual Northeast Regional Meeting, Westin Copley, Boston MA Thoracolumbar Trauma; treatment decision making with anatomic and biomechanical rationale
- 2008 Harvard Medical School, Beth Israel Deaconess Medical Center Research Day; vertebral body augmentation for vertebral compression fracture: an epidemiologic study, June 4 2008.
- 2008 Beth Israel Deaconess Medical Center 1st Annual Symposium; Defining New Frontiers to Eradicate Cancer. Zampini J, McGuire KJ, White AP. Is there an increased risk of kyphoplasty in patients with compression fractures related to metastatic disease of the spine as compared to patients with compression fractures related to osteoporosis? October 22 2008
- 2008 Beth Israel Deaconess Medical Center 1st Annual Symposium; Defining New Frontiers to Eradicate Cancer Kim J, White AP, Bono C, Harris M. A meta-analysis comparing radiation therapy alone to surgery with radiation therapy in the treatment of symptomatic metastatic lesions in the spine. October 22 2008
- 2009 Harvard Medical School, Beth Israel Deaconess Medical Center Research Day: Defining complications in spinal surgery, prospective questionnaire of spinal surgeons in North America, Boston MA June 2009
- 2009 Globus Medical Sales Training; Biologics in Spinal Surgery, Background and Rationale; Philadelphia PA, September 30 2009
- 2009 Globus Medical Sales Training; Bone Morphogenic Protein Clinical Physiology Related to Applications and Complications in the Cervical Spine; Philadelphia PA, September 30 2009
- 2009 Globus Medical Sales Training; Surgical Techniques and Bone Grafting Options for Lateral Lumbar Interbody Fusion, October 1 2009
- 2009 Effect of Surgery on Morbidity and Mortality in Elderly Patients with Traumatic Upper Cervical Spine Injuries, at the 1st annual Biomet Spinal Techniques and Technologies Course Boston Copley Center Marriott, Boston MA, October 9 2009

National

- 1995 Annual Meeting of the American Physical Society; Infrared observation of the hydration dependent conformation of (dG)20(dG)20(dC)20.

- 1995 Annual Meeting of the American Physical Society; Mid- and far-infrared study of the DNA/[(bipy)Pt(en)]²⁺ complex.
- 1995 The 9th Conversation in Biomolecular Stereo-dynamics, Infrared spectroscopic observation of daunomycin-d(CGTA)*d(TACG).
- 1995 31st American Chemical Society Meeting, The Western Biotechnology Conference, Computational chemistry applications in antisense technology
- 1996 Annual Meeting of the American Physical Society; DNA triplex conformation from normal mode and hydrogen bond stability calculations.
- 1996 Annual Meeting of the American Physical Society; Spectroscopic and gravimetric measurements of antisense oligonucleotides.
- 2000 Wilderness Medical Society, Breckenridge, Colorado; Hydration status and acute mountain sickness in high altitude trekkers
- 2001 Cervical Spine Research Society Meeting, Monterey, California Lumbar spinal arthrodesis gene expression in a rabbit model: autograft vs. control carrier vs. recombinant BMP-7.
- 2004 North American Spine Society 19th Annual Meeting, Podium Presentation; Gene expression associated with pseudarthrosis repair in a nicotine exposed rabbit model.
- 2005 ISSLS (International Society for the Study of the Lumbar Spine) Annual Meeting, New York USA, podium presentation; Osteogenic and angiogenic gene expression is up-regulated by OP-1 during repair of nicotine-induced rabbit pseudarthrosis.
- 2005 20th annual Smith and Nephew Residents Research Competition, Memphis Tennessee, Podium presentation Evaluation of OP-1 induced gene expression in a spinal pseudarthrosis repair model
- 2006 American Academy of Orthopaedic Surgeons, Chicago Illinois; Local gene expression is up regulated by OP-1 in repair of nicotine-induced rabbit pseudarthrosis
- 2006 41st Annual Scoliosis Research Society Meeting, Monterey CA, Podium Presentation Evaluation of the Efficacy of rhBMP-2 (Infuse and CRM) to Overcome Pseudarthrosis in a New Zealand White Rabbit Posterolateral Fusion Model
- 2006 North American Spine Society 21st Annual Meeting, Seattle WA, Podium presentation The utility of flexion – extension radiographs in evaluating the degenerative cervical spine
- 2006 North American Spine Society 21st Annual Meeting, Seattle WA, Poster Presentation Evaluation of the efficacy of rhBMP-2 (Infuse and CRM) to overcome pseudarthrosis in a New Zealand White rabbit posterolateral fusion model
- 2006 Spine Focus Group on Advocacy meeting, Conflict of Interest in Physician – Industry Relationships, Point and Counterpoint. Chicago Illinois
- 2007 American Academy of Orthopaedic Surgeons Annual Meeting, San Diego CA, Evaluation of BMP-2 and three carriers in repair of established rabbit lumbar pseudarthrosis
- 2007 North American Spine Society (NASS) 22nd Annual Meeting, Austin TX; Special Interest Invited Paper; Same Segment Disease after Cervical Spine Surgery.

- 2007 Musculoskeletal Education and Research Center Course, Las Vegas NV Complications in Spine Surgery, A Case Based Approach
- 2008 Spine Boot Camp Lectureship, Philadelphia PA; Biologics in Spinal Surgery- Rationale and Molecular Physiology Approach to Understanding Indications, Results, and Complications
- 2008 Determination of the spectrum of typical lumbar facet joint morphologies for the development of a percutaneous facet instrumented fusion technique, Moon SM, White AP, Brown ZB, Albert TJ at the 2008 Annual Meeting of the Korean Neurosurgical Society, Jeju Island Korea, April 18 2008
- 2008 Treatment Options of Degenerative Scoliosis in the Aging Spine; “Concepts and Techniques for Safe and Effective Instrumentation of the Osteoporotic Spine” Red Rock NV, Jan 18 - 19, 2008
- 2008 Combined anterior-posterior techniques for revision surgical treatment of Cervical Spondylotic Myelopathy; Jefferson Complex Spine Symposium, San Diego California, March 28, 2008
- 2008 Direct lateral lumbar interbody reduction and fusion, DLIF MAST meeting, St Louis Missouri, 2008
- 2008 Current concepts and technological innovations in interbody fusion devices, TJU meeting Orlando Florida July 25 2008
- 2008 Anterior instrumentation for cervical spinal reconstruction, TJU meeting Orlando Florida July 25 2008
- 2008 Extreme lateral interbody fusion for treatment of iatrogenic and degenerative lumbar spinal deformity, XLIF meeting La Jolla California, November 7 2008.
- 2009 Anterior cervical discectomy and fusion with carbon fiber cages without plating. Zampini JM, Glazer PA, McGuire KJ, White AP, Groff MW. Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas NV, February 25 2009
- 2009 Vertebral body augmentation for vertebral compression fracture: an epidemiologic study. Zampini JM, White AP, McGuire KJ. Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas NV, February 25 2009
- 2009 Lumbar Pseudarthrosis with Sagittal Plane Deformity at Thomas Jefferson Complex Spine Conference, San Diego CA, March 27 2009
- 2009 Lateral interbody lumbar fusion; indications and surgical techniques for treatment of degenerative lumbar deformities at Thomas Jefferson Complex Spine Conference, San Diego CA, March 28 2009
- 2009 Posterolateral Instrumentation for Revision Adult Deformity; hands on laboratory course at Thomas Jefferson Complex Spine Conference, San Diego CA, March 28 2009
- 2009 Morbidity and Mortality Related to Surgery for Odontoid Fractures in Geriatric Patients: A Systematic Review; AO Spine North America Meeting, Chicago Illinois, October 10 2009
- 2009 Indications, MILDER Surgical Techniques, and Complication Avoidance Using Intra-operative Neurological Monitoring for Lateral Lumbar Interbody Fusion; MERC Spine Fellows Course at the North American Spine Society Meeting, November 7 2009

2009 Choosing the right practice, analyzing practice styles, environmental factors; MERC Spine Fellows Course at the North American Spine Society Meeting, November 8 2009

International

- 2001 ISSLS (International Society for the Study of the Lumbar Spine) Annual Meeting, Edinburgh, Scotland; Autologous growth factor gene expression following lumbar spinal arthrodesis in a New Zealand White Rabbit model; an evaluation of recombinant human osteogenic protein 1
- 2001 Euro-Spine 2001, podium presentation, Gotenburg, Sweden; Fusion mass gene expression following NZ white rabbit lumbar fusion; a comparison of autograft to OP-1
- 2001 The World OP-1 Meeting; Expression of PDGF, VEGF, IGF, FGF after iliac crest autograft or rhOP-1 spinal arthrodesis.
- 2002 Association of Bone and Joint Surgeons meeting, Vancouver British Columbia, Canada, The Marshal Urist Young Investigator Award Presentation; Gene expression following lumbar arthrodesis in a New Zealand White rabbit model; a comparison of autologous bone graft and OP-1 alone.
- 2004 5th International Conference on Bone Morphogenic Proteins, Nagoya Japan; Gene expression associated with pseudarthrosis repair in a nicotine-exposed rabbit model
- 2005 World Spine 3 Conference, Rio de Janeiro Brazil, Association between pseudarthrosis repair outcomes and the local expression of osteogenic and angiogenic genes in a rabbit model.
- 2007 Spinal Arthroplasty Society 7th Annual meeting; Berlin; In-vivo CT characterization of lumbar facet joint orientation
- 2007 ISSLS (International Society for the Study of the Lumbar Spine) Annual Meeting, Hong Kong; In-vivo characterization of human lumbar facet morphology
- 2007 IMAST 14th Annual meeting, Paradise Island, Bahamas, Normal variation in human lumbar facet joint orientation as measured by in-vivo fine cut CT; can all lumbar facets be fused with the same approach trajectory?
- 2008 Annual Meeting of the Korean Neurosurgical Society, Jeju Island Korea Determination of the spectrum of typical lumbar facet joint morphologies for the development of a percutaneous facet instrumented fusion technique
- 2009 Anatomic and clinical features influencing the development of cervical myelopathy; North American Spine Society Spring Break, Rio del Mar Puerto Rico, April 22 2009. Lecture available at <http://mediasite.spine.org> with login *sb09* and password *san_juan*
- 2009 Faculty Panelist at North American Spine Society Spring Break, Back to Reality Symposium on Cervical Spinal Stenosis, Rio del Mar Puerto Rico, April 23 2009

E. Report of Clinical Activities

1. Description of clinical activity

I am currently a full time academic clinician specializing in spinal surgery in the orthopaedic surgery department of a university teaching hospital.

2. Patient load

My practice entails a broad spectrum of traumatic, reconstructive, and degenerative spine pathologies. My practice, however, is less focused on typical degenerative pathologies and more on spinal problems referred to our tertiary care center, including trauma, tumors, infections, deformities, and revision surgical dilemmas. Annually, I care for over 3000 outpatients, and perform approximately 300 spinal operations.

Part III: Format for Bibliography

Original Articles:

1. Marawar RW, Cowles DC, Keeler RE, White AP, Farley JW. Diode laser auto-detachment spectroscopy. *Rev. Sci. Instrum.* 65, 2769 1994
2. White AP, Powell JW. Observation of the hydration-dependent conformation of the (dG)₂₀*(dG)₂₀*(dC)₂₀ oligonucleotide triplex using FTIR spectroscopy. *Biochemistry* 34, 1137 1995
3. White AP, Reeves KK, Snyder E, Powell JW, Mohan V, Samsor K. Hydration of single-stranded phosphodiester & phosphorothioate oligodeoxyribonucleotides. *Nucleic Acids Res* 24, 3261 1996
4. White AP, Weinstein MA, Patel TCh, Horowitz MC, Friedlaender GE. Association of Bone and Joint Surgeons Marshall Urist Young Investigator's Award Paper; Lumbar Arthrodesis Gene Expression: A Comparison of Autograft with OP-1. *Clinical Orthopaedics and Related Research* 429: 330 2004
5. Lawrence JP, White AP, Ennis F, Magit D, Polzhofer G, Drespe I, Troiano NW, Grauer JN. Effect of daily parathyroid hormone (1-34) on lumbar fusions in a rat model. *The Spine Journal* 6, 385 2006
6. White AP, Maak TA, Prince D, Vaccaro AR, Albert TJ, Hilibrand AS, Grauer JN. Lead (cover) article in SPINE: Osteogenic Protein-1 Induced Gene Expression: Evaluation in a Posterolateral Spinal Pseudarthrosis Model. *Spine* 31: 2550-2555 2006
7. White AP, Biswas D, Haims AH, Smart LR, Grauer JN. Lead (cover) article in SPINE: Utility of Flexion – Extension Radiographs in Evaluating the Degenerative Cervical Spine; (06782R1) *Spine* 32; 975-979 2007
8. Lawrence JP, Waked W, Gillon TJ, White AP, Spock CR, Biswas D, Rosenberger P, Troiano N, Albert TJ, Grauer JN. rhBMP-2 (ACS and CRM Formulations) Overcomes Pseudarthrosis in a New Zealand White Rabbit Posterolateral Fusion Model. *Spine* 32; 1206-1213 (2007)
9. White AP, Kerr S, Mendel RC, Hannallah D, Vaccaro AR. Imaging Update on Cervical Spinal Trauma, Instability Screening, and Clearance. *Seminars in Spine Surgery* 19: 98-105 (2007)
10. White AP, Brothers J, Brown ZB, Vaccaro AR. Surgical techniques to maximize safety of bone morphogenetic proteins in the cervical spine. *Minerva Ortopedica e Traumatologica* 58: 271-279 (2007)
11. Kleweno CP, Zampini JM, White AP, Kasper EM, McGuire KJ. Survival after concurrent traumatic dislocation of the atlanto-occipital and atlanto-axial joints; a case report and review of the literature. *Spine* 33(18): E659-62 (2008)
12. White AP, Lawrence JP, Hilibrand AS. Same segment disease after cervical interbody fusion or cervical interbody arthroplasty; a review of the literature and proposal for critical analysis. Manuscript in preparation (2008)
13. White AP, Brown Z, Vaccaro AR, Morrison W, Albert T. In-vivo quantitative morphologic characterization of human lumbar facet joints. Manuscript in preparation for *Journal Spinal Disorders and Techniques* (2008)
14. Zeng Y, White AP, Albert TJ, Vaccaro AR, Hilibrand AS, Brown ZB, Anderson DG. Surgical Treatment Of Adult Degenerative Lumbar Scoliosis; Patient Categorization Into Two Types With Comparative Two Year Minimum Follow-Up. Manuscript in preparation *J Spine Disord Tech* (2008)
15. Fasset DR, White AP, Hannallah D, Kerr SM, Hilibrand AS, Vaccaro AR, Albert TJ. Evaluation of dilute betadine solution irrigation in the prevention of postoperative posterior instrumented spinal surgery Manuscript in preparation (2008)

16. Auerbach JD, Namdari S, Milby AH, White AP, Reddy SC, Lonner BS, Balderston RA. The parallax effect in the evaluation of range of motion in lumbar total disc replacement. *Spine Arthroplasty Society Journal* (2008)
17. White AP and Albert TJ. Evidence Based Medicine for the Spine; Lumbar Spinal Stenosis, *Seminars in Spine Surgery* (2009)
18. White AP, Whang P, Patel A, Singh K, Vaccaro AR. Actifuse, a silicated substituted calcium phosphate bone graft substitute for lumbar spinal fusion. *Journal Spinal Disorders Techniques* (2009)
19. Zampini JM, McGuire KJ, White AP. Comparison of 5,766 vertebral compression fractures treated with or without kyphoplasty. *Clinical Orthopaedics and Related Research*, in press (2009)
20. White AP, Norvell D, Hashimoto R, Vaccaro AR. Effect of surgery on morbidity and mortality in elderly patients with traumatic cervical spine injuries. *Spine*, in press (2009)
21. White AP, Wood K, Analysis of Fibular Struts for Low Level Spondylolisthesis with Trans-sacral Fibular Strut Grafts. *Acto Orthopodica Scandinavia*, in press (2009)
22. Zampini JM, McGuire KJ, White AP. Thoracic fracture dislocation sustained during cardio-pulmonary resuscitation; a case report and review of the literature. Manuscript submitted to *Spine* (2009)
23. White AP, Patel D, Vosbikian M, Harrop JS, Vaccaro AR. Anterior column reconstruction with PEEK expandable cage for optimal MR imaging after resection of metastatic spinal tumor. Submitted to *Spine* (2009)
24. White AP, Zaslavsky J, Klem J, Harrop JS. Mobile intradural extramedullary schwannoma; case report and clinical recommendations. submitted to *Spine* (2009)
25. Zampini J, McGuire KJ, White AP. Comparison of 5,766 vertebral compression fractures treated with or without kyphoplasty. Submitted to *Clinical Orthopaedics and Related Research* (2010)
26. Metkar U, White AP. Minimally invasive indirect neurological decompression and fusion of isthmic spondylolisthesis by lateral lumbar interbody fusion. Manuscript in preparation (2010)
27. Bono CM, Warholic N, Katz JN, Harris MB, Edward Carreras, MD, White AP, Wood KB, Losina M. Pain Intensity Influences Patients' Acceptance of Complications with Lumbar Fusion Surgery. Submitted to *Spine* (2010)
28. White AP, Patel AA, Whang PG, Vaccaro AR. Pitfalls in the publication of scientific literature. Submitted to *Neurosurgery* (2010)

Reviews, Chapters, and Editorials:

1. White AP, New books on emerging virus - The Coming Plague. *Yale J. Biol. Med* 71:3 1998
2. White AP, Angood P. Advancing technologies in clinical medicine; the Yale Mt Everest telemedicine project. *Yale J. Biol. Medicine* 72, 19 1999
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