

Ryan P. DenHaese, M.D., M.S., FAANS

Employment

2015-Present	Director of Medical Education for Lateral Spine Surgery and Board of Advisors. ZimmerBiomet Spine. Boulder, CO
2014-2015	Medical Director. Soothe Personalized Medicine & Pharmacy. Sarasota, FL.
2013-Present	Neurosurgeon/President. AXIS Neurosurgery and Spine
2013-2016	Director of Medical Education for Lateral Spine Surgery and Minimally Invasive Spine Surgery. BIOMET Spine. Parsippany, NJ
2011-2013	Director of Medical Education for all Spine Surgery and Medical Director. LANX Spine. Boulder, CO
2008-2011	Proctor/Consultant for XLIF procedure. NUVASIVE Spine. San Diego, CA.

Academic Qualifications

2010-Present	American Board of Neurological Surgery- Board Certified, FAANS
2001-2007	University of Maryland School of Medicine, Department of Neurosurgery. ABNS Written Boards Complete 2005.
2003-2004	American Association of Neurological Surgeons. Research Fellow.(1 of 5 in USA) Grant recipient.
1997-2001	SUNY at Buffalo School of Medicine and Biomedical Sciences. Commendation from the Dean 1 st and 2 nd years, Anatomical Honor Society, AOA, USMLE Step I: 239 (93 rd %), USMLE Step 2 Complete 2001. M.D. conferred 2001.
1994-1996	Roswell Park Cancer Institute affiliate of SUNY Buffalo Graduate School. M.S., Biochemistry, GPA 3.9/4.0, <i>summa cum laude</i> .

1990-1994 **Niagara University.** B.S., Biology, Minor in Spanish, GPA 3.7/4.0, *magna cum laude*, with honors

Honors and Awards

2010 **Top 40 Under Forty Award**, Western New York

2010-Present **Niagara University Board of Advisors**

2004-2005 **Neurosurgery Research Education Foundation-AANS.**
Fellowship/Grant awarded.

1997-2001 **AOA.** University at Buffalo School of Medicine & Biomedical Sciences.

1999-2000 **Commendation from the Dean -Second Year Students.**
University at Buffalo School of Medicine And Biomedical Sciences

1997-1998 **Commendation from the Dean -First Year Students.** University at Buffalo School of Medicine And Biomedical Sciences.

1997-1998 **Anatomical Honor Society.** University at Buffalo School of Medicine and Biomedical Sciences.

1990-1994 **Delta Epsilon Sigma, National Honor Society for Catholic Colleges and Universities.** Niagara University.

1990-1994 **Sigma Alpha Sigma Niagara University Honor Society.** Niagara University.

Phi Sigma Iota, International Foreign Language Honor Society. Niagara University.

Who's Who Among Students in American Universities. Niagara University.

Biology Departmental Honors. Niagara University.

Athletic Scholarship. Niagara University

Academic Scholarship. Niagara University

1993-1994 **All-Academic Team, MAAC for Division I Soccer.** Niagara University

Morton Medal Excellence in Biology. (Given to top student graduating with BS in Biology) Niagara University.

Research Experience

2016-Present **A Prospective, Multi-Center, Non –Randomized Study to Assess Clinical Outcomes using Interbody Spacers with Map3 Cellular Allogenic Bone Graft In Anterior/Lateral Interbody Fusion.**

2014 **Biomechanical Analysis of Timberline Lateral Cage with Modular Plate Fixation, Dynamic Spinous Process Stabilization with Pedicle Screws.** Biomet Spine. Broomfield, Colorado

2012 **Biomechanical Analysis of Timberline Lateral Cage.** Barrow Neurological Institute. Phoenix, Arizona

2011-Present **A Pivotal Multi-Center Clinical Trial Evaluating Anterior Fusion Combined with Pedicle Screws Versus Aspen Fixation: Evaluation Patient and Radiographic Outcomes.** Sub-Investigator, Prospective Randomized Blinded Clinical FDA Trial. DenHaese.

2011-2012 **Evaluation of Biomechanics of Lateral Interbody Cage Alone, with Spinous Clamps, Pedicle Screws and Compared to Intact Spine, Using Six Degree of Freedom Simulator.** Barrow Neurological Institute. Phoenix, Az. DenHaese. Cappucino, Crawford

2011-Present **Prospective Posterior Lateral Fusion combined with Aspen: Evaluation Radiographic and Clinical Outcomes.** . Sub-Investigator, Prospective Clinical FDA Trial. DenHaese.

2010-Present **A Pivotal Multi-Center Clinical Trial Evaluating the Safety and Effectiveness of The Lumbar Total Disc Replacement Device in Patients with Single-Level Lumbar Degenerative Disc Disease Via the Transpoas Approach.** Sub-Investigator, Prospective Clinical FDA Trial. DenHaese.

2010-Present **Osteocel Plus in eXtreme Lateral Interbody Fusion: Evaluation of Radiographic and Patient Outcomes.** Sub-investigator, Prospective Clinical FDA Trial. DenHaese

- 2009- Present **Osteocel Plus in Anterior Cervical Discectomy and Fusion: Evaluation of Radiographic and Patient Outcomes.** Sub-investigator, Prospective Clinical FDA Trial. DenHaese
- 2004-2005 **Department of Neurosurgery, University of Maryland Medical Center.** Neurosurgical Research Education Foundation Grant Awarded for \$40,000 (one of four in the USA) Molecular Mechanism for Adenosine Effects in Cerebral Vessels
- 1998 **Department of Neurosurgery, University at Buffalo School of Medicine.** Fellowship awarded. Researched endoscopic approaches through the foramen of Monroe to the 3rd ventricle and 3rd ventricular anatomical relationships.
- 1996-1997 **Department of Infectious Disease, University at Buffalo School of Medicine.** Research assistant, Participated in *Haemophilus influenzae* outer membrane protein research in vaccine development.
- 1994-1996 **Roswell Park Cancer Institute affiliate of SUNY Buffalo Graduate School.** Master's Thesis. Characterization of the mechanisms involved in photodynamic therapy induced apoptosis in RIF cells.
- 1993-1994 **Niagara University.** Senior Honors Thesis. Growth state modulation of PKA and PKC activities in 10T ½ fibroblasts.

Oral Presentations Given

- 2018 **The Power of Lateral Spine Surgery.** Jakarta International Neurosurgery Forum in Conjunction with Congress of Indonesian Neurospine Society. May 2018. Oral Presentation.
- 2017 **Spinous Process Stabilization versus MIS Pedicle Screw Fixation and Lateral Lumbar Fusion: Biomechanics and Prospective Randomized Trial.** Calusa. Annual Meeting, November 2017. St. Petersburg, Florida. Oral Presentation.
- 2017 **Interspinous Process Fixation in ALIF/LLIF: 2-year Outcomes from a Prospective Randomized Multi-Center Trial.** European Association of Neurological Surgeons. Annual Meeting, October 2017. Venice, Italy. Oral presentation.

- 2017 **Lateral Lumbar Interbody Fusion with Lateral Modular Plate Fixation and Interspinous Process Fixation: 2-Year Outcomes.** European Association of Neurological Surgeons. Annual Meeting, October 2017. Venice, Italy. Oral presentation.
- 2017 **Lateral Lumbar Interbody Fusion (LLIF) at L4/L5: Can Angled Instrumentation Overcome the Challenges of a High Iliac Crest?** International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2017. Boca Raton, FL. Oral Poster Presentation.
- 2017 **Lateral (LLIF) versus Anterior (ALIF) Lumbar Interbody Fusion: 2-year Outcomes from a Prospective Multi-center Study.** International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2017. Boca Raton, FL. Podium Presentation.
- 2017 **Is Interspinous Process Fixation Appropriate at L5/S1 in ALIF? 2-year Comparative Outcomes to Pedicle Screw Fixation from a Prospective, Randomized, Controlled, Multi-center Trial.** International Society for the Advancement of Spine Surgery (ISASS) Annual Meeting, April 2017. Boca Raton, FL. Podium Presentation.
- 2017 **Lateral Lumbar Interbody Fusion with Lateral Modular Plate Fixation and Interspinous Process Fixation: 2 year Outcomes from a Prospective, Multi-Center.** Joint Sections ANNS/CNS. March 2017. Las Vegas, NV. Podium Presentation.
- 2017 **Lateral Approach to the Lumbar Spine.** Brain and Spine Symposium. Miami Neurological Institute. January 2017. Trujillo, Peru
- 2016 **Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: Outcomes from a Prospective Randomized Multi-Center Trial.** North American Spine Society (NASS) Annual Meeting, Oct 2016. Boston, MA. Podium Presentation.
- 2016 **Interspinous process fixation versus pedicle screw fixation in circumferential arthrodesis: 1-year outcomes from a prospective randomized multi-center trial.** BritSpine 2016, April 2016. Nottingham, United Kingdom. Podium Presentation.
- 2016 **Interspinous Process Fixation versus Pedicle Screw Fixation in**

- Circumferential Fusion: 1-Year Outcomes from a Prospective Randomized Multi-Center Trial.** 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves. March 2016. Podium Presentation. (not personally presented)
- 2016 **Lateral Lumbar Interbody Fusion with Modular Plate Fixation: Initial Experience with a Novel Technology. Intra-Op and 1-Year Outcomes.** 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves. March 2016. Podium Presentation.
- 2015 **Lateral Lumbar Fusion with Modular Plate fixation: Initial Experience with a Novel Technology. Intra-OP and One year Outcomes.** SMISS Meeting, Las Vegas, Nevada ,Nov 2015. Podium Presentation.
- 2015 **Outcomes from a Prospective Multi-center Study.** Walter Dandy 1st Quadrennial Meeting, Dubai, UAE Nov 2015. Podium Presentation
- 2015 **Interspinous process fixation versus pedicle screw fixation: outcomes in a prospective randomized multi-center trial.** European Academy of Neurosurgeons Annual Meeting, Madrid, Spain Oct 2015. Podium Presentation.
- 2015 **Lateral versus Anterior Lumbar Interbody Fusion: Outcomes from a Prospective Multi-center Study.** European Academy of Neurosurgeons Annual Meeting, Oct 2015. Madrid, Spain. Podium Presentation.
- 2015 **Rigid Interspinous Process Fixation versus Pedicle Screw Fixation: Intraoperative Outcomes in a Prospective Randomized Multi-Center Trial.** NASS Spine Across the Sea Meeting, July 2015. Kohala Coast, HI. Accepted for Oral Presentation. (not personally presented)
- 2015 **Lateral versus Anterior Lumbar Interbody Fusion: Intraoperative Outcomes from a Prospective Multi-Center Study.** NASS Spine Across the Sea Meeting, July 2015. Kohala Coast, HI. Accepted for Oral Presentation.(not personally presented)
- 2014 **Patient Centered Clinical Outcomes After LLIF and Spinous Process Fixation For Lumbar DDD and Spondylolisthesis.** EuroSpine. Lyon, France. DenHaese

- 2014 **Novel Techniques in Lumbar Spine Pathology, Hands on Training.** Universitat de Barcelona. Barcelona, Spain. Proctor and Lecturer. DenHaese
- 2014 **Biomechanical Comparison of a Novel Expandable-Compressible Interspinous Device and Pedicle Screws Using Interbody Cage Load and Segmental Lordosis.** International Society for the Advancement of Spinal Surgery. Miami, FL. DenHaese
- 2014 **Lateral Based Surgery: Anatomy and Surgical Cases.** Grand Rounds University at Buffalo Neurological Surgery. Buffalo, NY. DenHaese
- 2014 **Biomechanical Analysis of a Novel Expandable-Compressible Interspinous Device and Pedicle Screws Using Interbody Load and Lordosis.** American Association of Neurological Surgeons/ Congress of Neurological Surgeons Joint Spine Section. Orlando, FL. DenHaese
- 2014 **A Unique Modular Solution for Lateral Interbody Fusion and Lateral Fixation.** American Association of Neurological Surgeons/ Congress of Neurological Surgeons Joint Spine Section. Orlando, FL. DenHaese
- 2014 **Modular Lateral Spinal Fixation.** Selby Spine Course. Park City, UT. DenHaese
- 2013 **Minimally Invasive Spine Surgery, Cadaver Lab.** Congress of Neurological Surgeons. San Francisco, Ca. Proctor Lateral Transpoas Approach. DenHaese
- 2013 **A Unique Modular Solution for Lateral Interbody Fusion and Lateral Fixation.** North American Spine Society. New Orleans, LA. DenHaese
- 2013 **Minimally Invasive Spinal Surgery Lateral Transpoas Approach and Cases.** Proctor and Lecturer Syracuse University Neurosurgical Resident Education Course. Syracuse, NY. DenHaese
- 2013 **Retrospective Review of Lateral Transpoas Fusion with Spinous Process Fixation.** Winter Clinic Meeting, American Association of Neurological Surgeons. Snowmass, CO. DenHaese

- 2013 **Minimally Invasive Spine Surgery, Cadaver Lab.** American Association of Neurological Surgeons. Proctor Cadaver Lab. DenHaese
- 2012 **Minimally invasive Lateral Transpsoas Approach combined with Aspen.** North American Spine Society. Dallas ,TX. DenHaese.
- 2012 **Evolution of the Lateral Transpsoas Approach.** LANX Spine. Broomfield, CO. DenHaese
- 2011 **Minimally invasive Lateral Transpsoas Approach combined with Aspen.** North American Spine Society. Chicago, IL. DenHaese.
- 2010 **Minimally Invasive Advanced Applications with Fusion and Tumor resection.** Grand Rounds Olean General Hospital. Olean, NY. DenHaese
- 2010 **Extreme Lateral Minimally invasive Approach to Spine, Anatomy, Technique and Cases.** Grand Rounds University of Maryland Medical Center. Baltimore, MD. DenHaese
- 2008 **Minimally Invasive Spinal Surgery.** Grand Rounds Olean General Hospital. Olean, NY. DenHaese
- 2008 **Minimally Invasive Spinal Surgery.** Fredonia, NY. DenHaese
- 2008 **Extradural Spinal Tumors and Treatment of Spinal cord Compression Caused by Metastatic Bony Tumors.** Suburban Hospital Oncology Grand Rounds. Williamsville, NY. DenHaese.
- 2007 **Extradural Spinal Tumors and Treatment of Spinal cord Compression Caused by Metastatic Bony Tumors.** Grand Rounds Kenmore Mercy Hospital. Kenmore, NY. DenHaese.
- 2003 **Anticoagulation in the neurosurgical patient and DVT prophylaxis in Acute Cervical Spinal Cord Injury.** Shock Trauma Grand Rounds. University of Maryland Medical Center. Baltimore, MD. DenHaese.
- 2000 **Spinal AVM's Classification and Treatment Options.** Neurosurgery Grand Rounds. University of Pennsylvania. Philadelphia, PA. DenHaese.

- 1998 **Endoscopic Approaches to Lesions of the Third Ventricle: Anatomy, Perils, Pitfalls, and Pearls.** Neurosurgery Grand Rounds, University at Buffalo. Buffalo, NY. Landi, DenHaese, Grand
- 1998 **Relevant Third Ventricular Anatomy.** Anatomical Rounds Neurosurgery Residents, University at Buffalo. Buffalo, NY. DenHaese, Grand.
- 1997/98 **RX for Success.** Presentation to undergraduate students interested in medicine as a career choice, Niagara University. Niagara, NY.

Papers/Abstracts/Posters

- 2018 **Anterior (ALIF) and Lateral (LLIF) Lumbar Interbody Fusion with Supplemental Interspinous Process Fixation: Outcomes from a Multi-Center, Prospective, Randomized, Controlled Study.** Manuscript. International Journal of Spine Surgery (IJSS). April 2018.
- 2017 **Lateral Lumbar Interbody Fusion (LLIF) at L4/L5: Can Angled Instrumentation Overcome the Challenges of a High Iliac Crest?** American Association of Neurological Surgeons (AANS) Annual Meeting, April 2017. Las Angeles, CA. ePoster Presentation.
- 2017 **Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: Outcomes from a Prospective Randomized Multi-Center Trial.** American Association of Neurological Surgeons (AANS) Annual Meeting, April 2017. Las Angeles, CA. ePoster Presentation.
- 2017 **Lateral (LLIF) versus Anterior (ALIF) Lumbar Interbody Fusion: 2-year Outcomes from a Prospective Multi-center Study.** American Association of Neurological Surgeons (AANS) Annual Meeting, April 2017. Las Angeles, CA. ePoster Presentation.
- 2017 **Lateral Lumbar Interbody Fusion With Integrated Lateral Modular Plate Fixation: Intraoperative and Follow-Up Outcomes.** American Association of Neurological Surgeons (AANS) Annual Meeting, April 2017. Las Angeles, CA. ePoster Presentation.

- 2017 **Lateral Lumbar Interbody Fusion with Lateral Modular Plate Fixation and Interspinous Process Fixation: 2 year Outcomes from a Prospective, Multi-Center.** AANS. April 2017. Las Angles, CA. Accepted for E-poster
- 2016 **Adjustable Rigid Interspinous Process Fixation: A Biomechanical Study of Segmental Lordosis and Interbody Loading in the Lumbar Spine.** International Journal of Spine Surgery. Gandhi A, Ferry C, Chang S, DenHaese RP. (under review)
- 2016 **Evaluation of a Novel Lateral Lumbar Interbody Fusion Cage with Integrated Modular Plate Fixation.** SPINE. DenHaese RP, Gandhi A, Ferry C, Farmer S, Porter R. (under review)
- 2016 **Lateral Lumbar Interbody Fusion With Integrated Lateral Modular Plate Fixation: Intraoperative and Follow-Up Outcomes.** Congress of Neurological Surgeons (CNS) Annual Meeting, Sept 2016. San Diego, CA. Accepted for ePoster Presentation.
- 2016 **Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: Outcomes from a Prospective Randomized Multi-Center Trial.** Congress of Neurological Surgeons (CNS) Annual Meeting, Sept 2016. San Diego, CA. Accepted for ePoster Presentation.
- 2016 **Anterior versus Lateral Circumferential Lumbar Fusion: Outcomes from a Prospective Multi-center Study.** Congress of Neurological Surgeons (CNS) Annual Meeting, Sept 2016. San Diego, CA. Accepted for ePoster Presentation.
- 2016 **Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: Outcomes from a Prospective Randomized Multi-Center Trial.** EUROSpine Annual Meeting, Oct 2016. Berlin, Germany. Accepted for ePoster Presentation.
- 2016 **Lateral Lumbar Interbody Fusion at L4/5: Can Angled Instrumentation Overcome Challenges of a High Iliac Crest ?** Society of Minimally Invasive Spine Surgery. Las Vegas, NV. Oct, 2016. Poster Presentation.
- 2016 **An In-Vitro Biomechanical Evaluation of a Novel Interspinous**

Fixation Device with in- situ Shortening/Extension

Capabilities. SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.

- 2016 **Interspinous Process Fixation versus Pedicle Screw Fixation in Circumferential Fusion: 1-Year Outcomes from a Prospective Randomized Multi-Center Trial.** SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.
- 2016 **Perioperative Experience with a Lateral Interbody Fusion Cage possessing Integrated Modular Plate Fixation.** SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.
- 2016 **Lateral Lumbar Interbody Fusion with Modular Plate Fixation: Initial Experience with a Novel Technology.** Intra-Op and 1-Year Outcomes. SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.
- 2016 **Anterior versus Lateral Circumferential Lumbar Fusion: Outcomes from a Prospective Multi-center Study.** SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.
- 2016 **An In-Vitro Biomechanical Evaluation of a Novel Lateral Lumbar Interbody Fusion Cage with Integrated Modular Plate Fixation.** SpineWeek 2016, May 2016. Singapore, Malaysia. ePoster Presentation.
- 2016 **Lateral Lumbar Interbody Fusion with Lateral Plate Fixation and Interspinous Fixation: 2 Year Outcomes.** Society of Minimally Invasive Spine Surgery. Las Vegas, NV. Oct, 2016 Poster Presentation.
- 2016 **An In-Vitro Biomechanical Evaluation of a Novel Lateral Lumbar Interbody Fusion Cage with Integrated Modular Plate Fixation.** International Society for the Advancement of Spine Surgery Annual Meeting, April 2016. Las Vegas, NV. Poster Presentation
- 2016 **An In-Vitro Biomechanical Evaluation of a Novel Interspinous Fixation Device with in- situ Shortening/Extension**
Capabilities. International Society for the Advancement of Spine Surgery Annual Meeting, April 2016. Las Vegas, NV. Oral Poster Presentation.

- 2016 **Anterior versus Lateral Circumferential Lumbar Fusion: Outcomes from a Prospective Multi-center Study.** International Society for the Advancement of Spine Surgery Annual Meeting, April 2016. Las Vegas, NV. Oral Poster Presentation.
- 2015 **Interspinous Process Fixation versus Pedicle Screw Fixation: Outcomes in a Prospective Randomized Multi-Center Trial.** Walter Dandy 1st Quadrennial Meeting. Dubai, UAE. Nov,2015. Poster Presentation.
- 2015 **Biomechanical Evaluation of a Novel Interspinous Fixation Device with in-situ Compression/Extension Capabilities.** Walter Dandy 1st Quadrennial Meeting. Dubai, UAE. Nov,2015. Poster Presentation.
- 2015 **Biomechanical Evaluation of a Lateral Lumbar Interbody Fusion Cage with Integrated Modular Plate and Screws.** Walter Dandy 1st Quadrennial Meeting. Dubai, UAE. Nov, 2015. Poster Presentation.
- 2015 **Biomechanical Evaluation of a Novel Interspinous Fixation Device with in-situ Compression/Extension Capabilities.** Congress of Neurosurgeons Annual Meeting. New Orleans, LA. Oct, 2015. Accepted for Poster Presentation.
- 2015 **In-Vitro Biomechanical Evaluation of a Novel Lateral Lumbar Interbody Fusion Cage with Integrated Lateral Modular Plate Fixation.** European Academy of Neurosurgeons Annual Meeting. Madrid, Spain. Oct 2015. Poster Presentation.
- 2015 **Biomechanical Evaluation of a Novel Interspinous Fixation Device with in-situ Compression/Extension Capabilities.** European Academy of Neurosurgeons Annual Meeting. Madrid, Spain. Oct 2015. Poster Presentation.
- 2015 **Anterior Lumbar Interbody Fusion: Intraoperative Outcomes from a Prospective Multi-Center Study.** American Academy of Neurological Surgeons 83rd Annual Meeting. Washington, DC. May 2015, Poster Presentation
- 2015 **Interspinous Process Fixation versus Pedicle Screw Fixation: Intraoperative Outcomes in a Prospective Randomized Multi-Center Trial.** American Academy of Neurological Surgeons Annual Meeting. Washington, DC. May 2015. Poster Presentation.

- 2014 **Biomechanical Analysis of a Novel Expandable-Compressible Interspinous Device and Pedicle Screws Using Interbody Load and Lordosis.** ANNS- CNS Spine. A.Ghandi, A. Cappuccino, R. DenHaese, D. Karahalios.
- 2006 **Adenylate cyclase 5 and kca 1.1 channel are required for EGFR up- regulation of PCNA in native rat basilar artery smooth muscle.** A. Ivanov, V. Cerzanich, S. Ivanova, R. Den Haese, J. Marc Simard. J.Physiology. pp73-84, 2006
- 2000 **Supraorbital Minicraniotomy and Orbital Osteotomy.** Annual Meeting American Association of Neurological Surgeons. Toronto, Ontario, Canada 2000. Landi, Grand, Den Haese

Courses Attended

- 2009 **Lumbar Disc Arthroplasty Course.** Chicago, IL. Synthes Spine
- 2008 **Cervical Disc Arthroplasty Course.** New York, NY. Synthes Spine.
- 2007 **Lateral and Anterior Access to Lumbar Spine, XLIF.** San Diego, CA. NuVasive Spine.
- 2007 **Masters in Spine Course.** Chicago, IL. R. Fessler.
- 2007 **Cervical Disc Arthroplasty Course.** Memphis, TN. Medtronic Spine.
- 2005 **Spine Summit 2005.** Depuy Spine. Boston, MA. M. Fehlings, R. Heary
- 2005 **Anterior and Lateral Approaches to the Skull Base.** AANS. New Orleans, LA. W. Couldwell & G. Rosseau.
- 2005 **Craniovertebral Junction Surgical Approaches: Indications, Techniques, Limitations and Complications.** AANS. New Orleans, Louisiana. A. Menezes.
- 2004 **A Multimedia Experience in Surgical Anatomy.** AANS. Orlando, Florida. AL Rhoton

- 2004 **Dr. Kenneth M. Earle Memorial Neuropathology Review.**
AFIP. Bethesda, MD. G. Sandberg
- 2003 **Review and Update for Neuroscientists and Neurosurgeons.**
Woodshole, MA. I. Awad

Activities:

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| 2016-Present | Surgeon Board of Advisors. ZimmerBiomet Spine |
| 2016- present | Medical Director of Surgeon Education for Lateral and Minimally Invasive Spinal Surgery. ZimmerBioMet Spine |
| 2014-16 | International Society for the Advancement of Spine Surgery,
Member |
| 2013-Present | Medical Director of Surgeon Education for Lateral and Minimally Invasive Spinal Surgery. BioMet Spine |
| 2013 | Proctor/Instructor for Minimally Invasive Surgery Course, Congress of Neurological Surgeons. Training surgeons in MIS techniques. CNS. San Francisco, CA. DenHaese |
| 2012 | Proctor/Instructor for Minimally Invasive Surgery Course, American Association of Neurological Surgeons. Training surgeons in MIS techniques. AANS. Miami, FL. DenHaese |
| 2011-2013 | Medical Director of Surgeon Education. Responsible for Course creation and Minimally invasive training of surgeons.(over 500 surgeon trained to date) LANX spine |
| 2010-2011 | Instructor for Minimally Invasive Spinal Access, XLIF.
Train surgeons on minimally invasive access to spine.
NuVasive Spine. |
| 2011-present | Spine and Peripheral Nerve Section Member, AANS |
| 2010-Present | Fellow American Association of Neurological Surgeons |
| 2010-Present | Niagara University Board of Advisors |
| 2009-Present | North American Spine Society, Member |
| 2009- Present | Society of Lateral Access Surgeons, Member |

2007-Present **American Academy of Sports Medicine, Member**

2002-Present **Congress of Neurological Surgeons, Member**

2002-Present **American Association of Neurological Surgeons, Member**

2002-present **Tumor Section Member, AANS**

1997- 2008 **American Medical Association, Member**

1998-2000 **Surgical Interest Group University at Buffalo Medical School**

1998-1999 **Selected to Tutor Neuroscience**, for first year medical students.
Facilitator for the Scientific Basis of Medicine Course, for first year medical students

1994-1996 **Graduate Student Senate University at Buffalo**