

Curriculum Vitae

BASEM I. AWAD, MD, MSc, PhD

Lecturer of Neurosurgery
Mansoura University School of Medicine
Mansoura, Egypt

ADDRESS AND TELEPHONE

Current Address

*Neurological Surgery Department
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PERSONAL DATA

Year of Birth: 1980
City of Birth: Mansoura
State of Birth: El-Dakahlia
Citizenship: Egypt

EDUCATIONAL BACKGROUND

Medical School 1997 - 2003: Mansoura University
Mansoura, Egypt

Master Degree of Surgery 2005 - 2008: Mansoura University
Mansoura, Egypt

Doctorate Degree of Neurosurgery 2008 – 2014: Joint between Case Western Reserve University, Cleveland, OH and Mansoura University, Mansoura, Egypt

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SPECIAL TRAINING

INTERNSHIP:

Mansoura University Hospital
General and Orthopedic Surgery: Trauma
2003-2004

RESIDENCY:

Mansoura University Hospital
Neurological Surgery (2005 – 2008)
Program Director: Abdel Wahab M. Ibrahim, MD, FRCS
Chair, Department of Neurological Surgery
Mansoura University SOM

FELLOWSHIPS:

Crockard International Spine Fellowship – 2009

Cleveland Clinic Foundation
Center for Spine Health
Cleveland, OH, USA
Supervisors: Associate Prof. Michael P. Steinmetz, MD
Prof. Edward C. Benzel, MD (Chairman)

AO Spine International Fellowship - 2011

The Spine Education and Research Institute, Center for Spinal Disorders
Denver, CO, USA
Program Director: Dr. Michael E. Janssen, D.O
Past World President of the AOSpine International

Spinal Cord Injury Research Fellowship – 2011- 2014

Neurological Surgery Department
MetroHealth Medical Center
Case Western Reserve University
Cleveland, OH
Program Director: Michael P. Steinmetz, MD – Chairman
Warren J. Alilain, PhD

VISITING SCHOLARSHIPS:

Miami Project to Cure Paralysis – 2015

*University of Miami
Miami, FL, USA
Program Director: Prof. Dr. Dalton Dietrich, PhD*

Jackson Memorial Hospital - 2015

*Neurological surgery Department
University of Miami
Miami, FL, USA
Supervisor: Dr. Samy El-Hammady*

Schon Klinik Munchen Harlaching – 2010

*Spine Center Munich
Munchen, Germany
Program Director: Prof. Dr. Michael Mayer, MD
The Head and Medical Director*

Massachusetts General Hospital - 2009

*Neurological Surgery Department
Harvard Medical School
Boston, MA, USA
Program Director: Prof. Robert Martuza, MD (Chairman)*

University of Pittsburgh Medical Center - 2009

*Neurological Surgery Department
Pittsburgh Medical School
Pittsburgh, PA, USA
Program Director: Prof. Amin Kassam, MD (Chairman)*

University Hospital, Case Western Medical Center - 2009

Pain Management Department

Case Western Reserve University

Cleveland, OH, USA

Program Director: Prof. Al Amin Khalil, MD

Allegheny General Hospital - 2009

Neurological Surgery Department

Pittsburgh, PA, USA

Program Director: Prof. Khalid Aziz, MD (Director for Skull Base Unit)

HONORS AND AWARDS

○ **Crockard International Spine Fellowship 2009**

AANS/CNS Section on Disorders of the Spine and Peripheral nerves

http://www.spinesection.org/fellowships_awards.php?id=7

○ **AOSpine International Clinical Fellowship 2011**

<https://aospine.aofoundation.org/Structure/pages/newsdetail.aspx?newslist=https%3A%2F%2Faospine.aofoundation.org%2Fnews%2FLists%2FNews+Common&newsid=2>

○ **XIV World Congress of Neurological Surgery Travelling Fellowship 2009**

World Federation of Neurosurgical Societies (WFNS)

○ **President Prof. Hirotoshi Sano Invitation for Young Neurosurgeon to Attend the 9th International Conference on Cerebrovascular Surgery 2009**

Cerebrovascular Committee, World Federation of Neurosurgical Societies

○ **Egyptian Governmental Scholarship (PhD program) 2011**

○ **International Symposium On Neural Regeneration Travel Award 2013**

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Egyptian Society of Neurological surgeons (ESNS)
- Egyptian Spine Association (ESA)
- American Association of Neurosurgery (AANS)
- Congress of Neurosurgery (CNS)
- AANS/CNS Section on Disorders of the Spine and Peripheral nerves
- North American Spine Society (NASS)
- AO-Spine International.
- World Spinal Column Society.
- British Association of Spine Surgeon (BASS)
- Society for Neuroscience (SFN)

PUBLICATIONS

Google Scholar Link:

<http://scholar.google.com/eg/citations?user=12hHQ9MAAAAJ&hl=en&oi=ao>

Warren PM, **Awad BI**, Alilain WJ. **Drawing breath without the command of effectors: the control of respiration following spinal cord injury.** *Respiratory Physiology & Neurobiology Journal. Respir Physiol Neurobiol.* 2014 Nov 1;203:98-108

Awad BI, Lubelski D, Carmody M, Morz TE, Anderson JS, Moore TA, Steinmetz MP. **Surgical versus Non-Surgical Treatment of Subaxial Cervical Fractures.** *World Neurosurgery*, 2014 Jun; 14: 541-5

Awad BI, Warren PM, Gutierrez DV, Hoy KC, Steinmetz MP, Alilain WJ. **Lateral Cervical Contusion Injury and Contralateral C2 Hemisection: A New Model to Evaluate Therapeutic Interventions.** *J Vis Exp. In Press, Accepted Manuscript*

Gutierrez DV, **Awad BI**, Steinmetz MP. **Pathophysiology and Urgent Treatment of Spinal Cord Injury.** *Skeletal Trauma*, 5th Edition.

Hoy KC, **Awad BI**, Alilain WJ. **Cervical Contusion Injury induces an increase in CSPGs at**

the level of the Crossed Phrenic Pathway. *Experimental Neurology, In press*

Awad BI, Warren PM, Steinmetz MP, Alilain WJ. **The Role of the Crossed Phrenic Pathway After Cervical Contusion Injury and a New Model to Evaluate Therapeutic Interventions.** *Experimental Neurology, 2013 July.*

Awad BI, Lubelski D, Shin JH, Carmody MA, Hoh DJ, Mroz TE, Steinmetz MP. **Contralateral Facet Screws for MIS TLIF: Clinical Outcomes and Cost Analysis.** *Global Spine Journal 2013 July*

Awad BI, Carmody MA, Zhang X, Lin VW, Steinmetz MP. **Transcranial Magnetic Stimulation Following Spinal Cord Injury.** *World Neurosurg. 2013 Jan; 13: 104-6*

Awad BI, Carmody MA, Steinmetz MP. **Potential Role of Growth Factors in Spinal Cord Injury Management.** *World Neurosurg. 2013 Jan; 13: 103-4*

Awad BI, Gutierrez DV, Steinmetz MP. **Immune-Based Therapies for Spinal Cord Injury.** *American Journal of Neuroscience 2013; 4 (1): 25-38*

Assinck P, **Awad BI**, Fiorelli R, Lang B. **Combining biological and electrical stimulation therapies following spinal cord injury.** *J Rehabil Res Dev. 2012 Dec; 49(10): vii-x*

Awad BI, Moraz TE, Steinmetz MP: **Minimal Access and Percutaneous Lumbar Discectomy,** in Benzel EC (ed): *Spine Surgery: Techniques, Complications, and Avoidance Management, 3rd edition, 2012*

Awad BI, Moraz TE, Steinmetz MP: **Interspinous Bumpers,** in Benzel EC (ed): *Spine Surgery: Techniques, Complications, and Avoidance Management, 3rd edition, 2012*

SCIENTIFIC PRESENTATIONS

Imaging detection of adjacent ligamentous injury associated with traumatic cervical spine fracture: implications for treatment

Accepted for The Global Spine Congress 2015, Buenos Aires, Argentina

Early Neuroprotective Effects of Macrophages on Locomotor Recovery and White Matter Sparing Following Spinal Cord Contusion Injury

The 31st Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, USA 2015

Adjacent Level Ligamentous Injury Associated with Traumatic Cervical Spine Fractures: Indications for MR Imagine and Implications for Treatment

30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Orlando, FL, USA 2014

Mesenchymal Stem Cell implantation in combination with Liposomal Clodronate followed Spinal Cord Injury

The Annual Meeting for the Egyptian Spine Association, Sharm Elsheikh, Egypt 2014

Soft Tissue Injuries Associated with Traumatic cervical Spine fractures.

The Annual Meeting for the Egyptian Spine Association, Sharm Elsheikh, Egypt 2014

Both Central And Peripheral Phrenic-Intercostal Circuitry Mediate Respiratory Recovery Following Cervical Spinal Cord Injury

15th Biannual International Symposium on Neural Regeneration (ISNR), Pacific Grove, California, USA 2014

A New Model to Evaluate Therapeutic Interventions after Cervical Contusion Injury.

15th Biannual International Symposium on Neural Regeneration (ISNR), Pacific Grove, California, USA 2013

Rescuing Complete Respiratory Motor Activity Following Cervical Spinal Cord Contusion.

15th Biannual International Symposium on Neural Regeneration (ISNR), Pacific Grove, California, USA 2013

The Role of the Crossed Phrenic Pathway after Cervical Contusion Injury and a New Model to Evaluate Therapeutic Interventions.

41st Annual Cervical Spine Research Society Meeting (CSRS), Los Angeles, California, USA 2013

Cervical Pedicle Fractures: Surgical vs. Conservative Treatment.

41st Annual Cervical Spine Research Society Meeting (CSRS), Los Angeles, California, USA 2013

Optogenetic Photostimulation to Control Bladder Motor Function followed Spinal Cord Injury.

Annual Society for Neuroscience Meeting (SFN), San Diego, California, USA 2013

A New Model to Evaluate Therapeutic Interventions after Cervical Contusion Injury.

Annual Society for Neuroscience Meeting (SFN), San Diego, California, USA 2013

Optogenetic Photostimulation to Control Bladder Function after Spinal Cord Injury.
63rd Annual Congress of Neurosurgery Meeting (CNS), San Francisco, California, USA 2013

The Role of the Crossed Phrenic Pathway after Cervical Contusion Injury and a New Model to Evaluate Therapeutic Interventions.
63rd Annual Congress of Neurosurgery Meeting (CNS), San Francisco, California, USA 2013

Optogenetic Photostimulation to Control Bladder Function after Spinal Cord Injury.
28th Annual North American Spine Society Meeting (NASS), New Orleans, Louisiana, USA 2013

A New Model to Evaluate Therapeutic Interventions after Cervical Contusion Injury.
Annual MetroHealth Medical Center Research day, Cleveland, OH, USA 2013

Optogenetic Photostimulation to Control Bladder Function after Experimental Spinal Cord Injury.
19th Annual Kentucky Spinal Cord & Head Injury Research Trust Symposium, Louisville, Kentucky, USA 2013

The Role of the Crossed Phrenic Pathway after Cervical Contusion Injury and a New Model to Evaluate Therapeutic Interventions.
19th Annual Kentucky Spinal Cord & Head Injury Research Trust Symposium, Louisville, Kentucky, USA 2013

Open vs. Percutaneous Fixation for Thoracolumbar Flexion Distraction Injuries in Poly Trauma Patients: Perioperative Outcomes.
6th Annual Lumbar Spine Research Society Meeting (LSRS), Chicago, Illinois, USA 2013

Cervical Pedicle Fractures: Surgical vs. Conservative Treatment.
29th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, Arizona, USA 2013

Chondroitinase ABC Treatment Promotes Respiratory Recovery Following Cervical Contusion Injury.
Annual Society for Neuroscience Meeting (SFN), New Orleans, LO, USA 2012

Non- Surgical Options for Cervical Degenerative Disc Disease.
The Spine Education and Research Institute's Annual Spring Spine Symposium . Denver, CO, USA 2011

Bilateral Pedicle Screw Fixation Vs Unilateral Pedicle and Contralateral Facet Screws for MIS TLIF: Clinical Outcomes and Cost Analysis.
26th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Orlando, Florida, USA 2010.

Costotransversectomy Approach to the Thoracic Spine Tumors.

35th Annual Meeting of Egyptian Society of Neurological Surgeons (ESNS), Egypt 2009

Different Surgical Approaches to the Thoracic Spine Lesions

34th Annual Meeting of Egyptian Society of Neurological Surgeons (ESNS), Egypt 2008

INTERNATIONAL CONFERENCES

- The 31st Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Phoenix, AZ, USA 2015
- 30th Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Orlando, FL, USA 2014
- The Annual Meeting for the Egyptian Spine Association, Sharm Elsheikh, Egypt 2014
- The International Symposium on Neural Regeneration. December 11-15, 2013. Pacific Grove, California, USA
- The Congress of Neurological Surgeons (CNS) 63rd Annual Meeting. October 19-23, 2013. San Francisco, California, USA
- The North American Spine Society (NASS) 28th Annual Meeting. October 9-12, 2013. New Orleans, Louisiana, USA
- The Lumbar Spine Research Society (LSRS) 6th Annual Meeting. April 11-12, 2013. Chicago, Illinois, USA
- 19th Annual Kentucky Spinal Cord & Head Injury Research Trust Symposium, May 6-7, 2013. Louisville, Kentucky, USA
- 1st Annual North American AOSpine Instructional Course Lecture (ICL). April 12, 2013. Chicago, IL, USA
- The AANS/CNS Section on Disorders of the Spine and Peripheral Nerves 29th Annual Meeting. March 6-9, 2013. Phoenix, Arizona, USA
- The Society for Neuroscience (SFN) 42nd Annual Meeting. October 13-17, 2012. New Orleans, LO, USA.
- The 14th International Symposium on Neural Regeneration (ISNR). December 7-11, 2011. Pacific Grove, California, USA.
- World Spine V Conference. 7-9 May 2010, Santorini, Greece.
- 9th International Conference on Cerebrovascular Surgery. Nov. 11-13, 2009. Nagoya, Japan.

- XIV World Congress of Neurological Surgery of the World Federation of Neurosurgical Societies (WFNS). August 30 – September 4, 2009. Boston, Massachusetts, USA.
- The AANS 77th Annual Meeting. May 2-6, 09. San Diego, California, USA.
- The ESNS 34th Annual Meeting with the AANS. Feb 25- Feb 28, 09. Hurgada, Egypt.
- WFNS Training Course, Jan 6-9, 09. Amman, Jordan.
- Thee AANS American-Kuwait Neurosurgical 2nd Annual Meeting, Nov 15-19, 2008, Kuwait.
- AOSpine Live Surgery Symposium, Nov 8–10, 2008. Kuwait, Kuwait.
- 10th International Spine Congress with the World Spine Society, Mar 19- 21, 08. Alexandria, Egypt.
- 33rd ESNS Annual Meeting with the Japan Neurosurgical, Feb 27 –Mar 1, 2008, Luxor, Egypt.
- 32rd ESNS Annual Meeting Feb 28 –Mar 3, 2007, Sharm El Sheikh, Egypt.

CONTINUING EDUCATION

Cleveland Clinic Spine Review Hands-on Course

- Cleveland Spine Review Hand-on Course 2014, July 9-15, 2014. Lutheran Hospital, Cleveland Clinic, OH, USA ([Lab Faculty](#))
- Cleveland Spine Review Hand-on Course 2013, July 10-16, 2013. Lutheran Hospital, Cleveland Clinic, OH, USA ([Lab Faculty](#))
- Cleveland Spine Review Hand-on Course 2012, July 11-17, 2012. Lutheran Hospital, Cleveland Clinic, OH, USA ([Lab Faculty](#))
- World Spine 2010 Hands on Course and Cleveland Clinic Review Course 2010, May 10-14, 2010. Larissa, Greece. ([Lab Faculty](#))
- Cleveland Spine Review Hand-on Course 2009, July 22-28, 2009. Lutheran Hospital, Cleveland Clinic, Ohio, USA ([Lab Faculty](#))
- Egypt Spine and Cleveland Clinic Spine Review Hand-On Course 2007, August 3-9, 2007. Cairo, Egypt.

International Hands-on Training Courses

- Advanced Trauma Techniques. Cadaveric course – September 19-20, 2013 New Orleans, LA, USA
- Spine Future Leaders Workshop: Adult Spinal Deformity. September 6-7, 2013 Indianapolis, IN, USA
- Cervical & Lumbar Pro-disc Replacement Hands-on Course, By Dr. M. Janssen. Sept 26-28, 2011. Denver, CO, USA
- Resident Spine Forum & Cadaver Workshop: Degenerative Diseases of the Lumbar Spine (*By Synthes*). Oct 14-15, 2011. Denver, CO, USA
- St. Jude Medical Theory & Practical Workshop and Cadaver Lab. Neuromodulation Academy, Nov 5-6, 2011. Denver, CO, USA.
- AOSpine Local Egyptian Symposium 2011 & Spine Navigation Hands-on Course by Brain Lab, 10 Aug 2011, Cairo, Egypt.
- Mesenchymal Stem Cells Isolation from Mouse Bone Marrow. Hands-on course. Feb 21-23, 2010. Medical Technology Center, Alexandria University.
- Laboratory Performance and Quality Assurance Course. Feb 1- 5, 2010. Medical Technology Center, Alexandria University.
- Update on Microsurgical Tools and Techniques (Carl Zeiss), By Robert Spetzler, MD. Nov 13th, 09. Nagoya, Japan.
- Update of Neuroendoscopic approaches, Orientations and Hands on Workshop. Nov 12th, 09. Nagoya, Japan.
- The 2009 Aichi Forum for Practical Minimally Invasive Spine Surgery, Hands on workshop. Nov 11th, 09. Nagoya, Japan.
- The 2nd Aichi Endovascular forum, Endovascular Neurosurgery Hands on workshop (Simulation). Nov 10th, 09. Nagoya, Japan.
- Basic Techniques in Cell Culture and isolation – Hands on Course. 21-23 Sept, 09. Medical Technology Center, Alexandria University.
- WFNS Interactive & Video Sessions on Spine Surgery. Sept 3rd, 09. Boston, MA. USA
- WFNS Practical Course: video symposium: masters of neuroendoscopy. Aug 30, 09. Boston, MA. USA
- Endoscopic Skull Base Cadaveric Dissection Training Program, July 11-21, 09.

- UPMC, Pittsburgh, USA
- Gamma Knife Radiosurgery Principles and Practice Training Program, July 6 – 10, 09. UPMC, Pittsburgh, USA
 - Surgical Treatment of the Craniocervical Junction Cadaveric Course. Director: *Volker Sonntag, MD*. June 22-23, 09. Case Western University Hospital, Ohio, USA
 - Minimally Invasive Endoscopic Spine Surgery Cadaveric Course, June 18, 09. Main-Campus Cleveland Clinic, Ohio, USA
 - Minimally Invasive Spine Surgery Cadaveric Course on (*TLIF, Percutaneous Fix. Kyphoplasty, and X-Stop*). April 18, 09. Lutheran Hospital, Cleveland, Ohio, USA
 - 3-D Anatomy and Approaches to the Supra-Tentorial Area and Anterior Skull Base, *Albert L. Rhoton, MD*, May 3, 09 - AANS Annual Meeting, San Diego, California, USA
 - 3-D Anatomy and Approaches to the Posterior Fossa and Posterior Skull Base, *Albert L. Rhoton, MD*, May 4, 09 - AANS Annual Meeting, San Diego, California, United States.
 - Minimally Invasive Spine Surgery work-shop, Feb 28, 09. ESNS, Hurgada, Egypt.
 - WFNS Skull Base Cadaveric Dissection Course, Director: *T. Kawase, MD*, Feb 3-6, 09. Alexandria University Hospital, Egypt.
 - WFNS Neuro-Endoscopy Hand-On Course, Jan 9, 09. Amman, Jordan.
 - AOSpine Live Surgery Symposium, Nov 8–10, 2008. Kuwait, Kuwait.

CURRENT PROJECTS

Clinical Research

Open vs. Percutaneous Fixation for Thoracolumbar Flexion Distraction Injuries in Poly-Trauma Patients: Perioperative Outcomes – Data collection

Indications of CT Angiography for patients with C2 Fractures – Data collection

Basic Science Research

Both Central And Peripheral Phrenic-Intercostal Circuitry Mediate Respiratory

Recovery Following Cervical Spinal Cord Injury

The Role of NanoTubes and NanoFibers in Neural Regeneration after Spinal Cord Injury

The Neuroprotective effects of the Natural Product Genistein followed Spinal Cord injury

Cord Mesenchymal Stem cells in combination with Nano-scaffolds to Treat Spinal cord injury.

Chondroitinase ABC Administration Enhances Respiratory Recovery followed Cervical Contusion Injury

Exogenous Administration of 5-HT improved the respiratory function followed Cervical Contusion Injury

Optogenetic Photostimulation to Control Bladder Function after Experimental Spinal Cord Injury

Investigate the Pathways connected the Phrenic and Intercostal Motor Neurons – Data collection

The Role of Mesenchymal Stem cells (MultiStem) in combination with Clodronate followed Thoracic Spinal Cord Injury - Data collection

ACADEMIC COURSES

- Research, Medical Statistics and Computer Application Academic Course.
- Meetings and Time Management.
- Academic Research Ethics.
- Medical Ethics.
- Effective Presentation.
- Medical Commercial Skills.
- Academic Effective Communication Skills.

CREC and IACUC

BASEM I. AWAD
Curriculum Vitae

Case Western Reserve University programs (*Certified*)

USMLE CLINICAL SKILLS EXAM

Passed

COMPUTER SKILLS

ICDL International Computer Driving License

REFERENCES

Michael E. Janssen, DO

*The Spine Education and Research Institute
9005 Grant Street, Suite 200
Thornton, CO 80229
Phone: 303-287-2800
Email: drmjanssen@gmail.com*

Michael P. Steinmetz, MD

*Chairman of Neurological Surgery Department
MetroHealth Medical Center
Case Western Reserve University
Cleveland, OH 44109
Phone: 216-778-4386
Email: msteinmetz@metrohealth.org*

Abdel Wahab M. Ibrahim, MD, LRCP, MRCS, FRCS

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Neurological Surgery Department
Mansoura University School of Medicine
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