

CURRICULUM VITAE

Michel Elias Mawad, M.D.

ADDRESS: Lebanese American University
Gilbert and Rose-Marie Chagoury School of Medicine
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DATE & PLACE OF BIRTH: February 7, 1952 - Beirut, Lebanon

EDUCATION: La Salle College, Beirut, Lebanon,
1965-69, French & Lebanese B.A.
Part II/Mathematics

French School of Medicine,
Beirut, Lebanon, 1969-76, M.D. Degree
French State Diploma

INTERNSHIP: St. John's Episcopal Hospital
Brooklyn, New York
Flexible, 1976-77

RESIDENCY: St. Luke's Hospital Center
New York, New York
Diagnostic Radiology, 1977-80
Chief Resident, 1979-80

FELLOWSHIP: Neurological Institute of New York
Columbia-Presbyterian Medical Center
New York, New York
Neuroradiology, 1980-81

ACADEMIC APPOINTMENTS: Instructor in Radiology
Columbia University College of Physicians and Surgeons
New York, NY 7/1980- 6/1981

Medical Student Teaching Coordinator
Columbia University College of Physicians and Surgeons
New York, NY – 7/1981-11/1984

Assistant Professor
Department of Radiology
Columbia University College of Physicians and Surgeons
New York, NY – 7/1981-11/1984

Clinical Assistant Professor
Department of Radiology
Baylor College of Medicine
Houston, TX – 12/1984-1987

Clinical Associate Professor
Department of Radiology
Baylor College of Medicine
Houston, Texas - 1987-1996

Director of Neuroradiology
Department of Radiology
Baylor College of Medicine
Houston, Texas - 1988-2001

Clinical Associate Professor
Department of Ophthalmology
Baylor College of Medicine
Houston, Texas - 1991-1997

Clinical Associate Professor
Department of Neurosurgery
Baylor College of Medicine
Houston, Texas - 1991-1997

Tenured Professor, Department of Radiology
Baylor College of Medicine
Houston, Texas - 1996-2014

Tenured Professor, Department of Neurosurgery
Baylor College of Medicine
Houston, Texas - 1996-2014

Tenured Professor, Department of Neurology
Baylor College of Medicine
Houston, Texas - 1997-2014

Tenured Professor, Department of Ophthalmology
Baylor College of Medicine
Houston, Texas - 1997-2014

Dean and Professor
Gilbert and Rose-Marie Chagoury School of Medicine
Lebanese American University
Byblos, Lebanon- Feb 2017- Present

PROFESSIONAL APPOINTMENTS:

Neuroradiologist
The Methodist Hospital
Houston, Texas – 11/1984-12/31/2004

Director of Neuroradiology
The Methodist Hospital
Houston, Texas – 4/1991-1/2002

Consulting Radiologist
Veterans Administration Medical Center
Houston, Texas - 1988-2017

Consulting Radiologist
Ben Taub General Hospital
Houston, Texas - 1989-2001

Consulting Radiologist
M.D. Anderson Cancer Center
Houston, Texas - 1993-2014

Consulting Radiologist
St. Luke's Episcopal Hospital
Houston, Texas - 1993 to December 31, 2004

Physician-In-Chief, Radiology Service
Ben Taub General Hospital
Houston, Texas - 2001-2014

Acting Chief of Service, Department of Radiology
The Methodist Hospital
Houston, Texas – January 1, 2001 – September 9, 2001

Chief of Service, Department of Radiology
The Methodist Hospital
Houston, Texas- Sep.10, 2001– December 31, 2004

Director, Endovascular Center of Houston
The Methodist Hospital
From Inception to December 31, 2004

Acting Chairman, Department of Radiology
Baylor College of Medicine
Houston, Texas – January 1, 2001 – September 9, 2001

Chairman, Department of Radiology
Baylor College of Medicine
Houston, Texas
September 10, 2001 – September 2014

Neuro-interventional Radiologist
St. Luke's Episcopal Hospital
Houston, Texas – January 1, 2005 – December 31, 2014

Director, BCM Neurovascular Service
St. Luke's Episcopal Hospital
Houston, Texas - January 1, 2005 - December 31, 2014

Director, Stroke Center
The Neurological Institute
Cleveland Clinic, Abu Dhabi, UAE
January 2015- January 2017

Director, Comprehensive Stroke Center
LAU Medical Center- Rizk Hospital
Beirut, Lebanon
February 2017- Present

LICENSURE:

Texas, New York

CERTIFICATION:

American Board of Radiology, 1980
Certificate of Added Qualifications in Neuroradiology,
November 1995

COMMITTEES:

Radiology Education Committee – Member
Baylor College of Medicine

Radiology Executive Committee
Member, 1984 – 2001
Chairman, 2001 - 2014
Baylor College of Medicine

Capital Equipment Evaluation Committee
Department of Radiology
The Methodist Hospital

Faculty Appointment Committee
Baylor College of Medicine

Patent and Copyright Committee
Baylor College of Medicine

Houston Radiology Associated
Board Member

Texas Radiology Foundation
Founding Member
From inception - 2014

Member Academic Council
Baylor College of Medicine
September 2001- September 2014

Member Executive Committee
Baylor College of Medicine
2012-2014

Member of LAUMC-RH Advisory Board
LAU Medical Center-Rizk Hospital, Beirut-Lebanon
2017- Present

Member of LAUMC-RH Medical Board
LAU Medical Center-Rizk Hospital, Beirut-Lebanon
2017- Present

Member of LAUMC-RH Credentialing Committee
LAU Medical Center-Rizk Hospital, Beirut-Lebanon
2017- Present

PROGRAM COMMITTEES:

ASITN/WFITN Scientific Conference
September 13-16, 1997. New York, NY.
Program Committee

ASITN/AANS/CNS Cerebrovascular Section.
February 1-4, 1998. Orlando, FL.
Chairman, Program Committee

Joint Meetings – ASNR/ASHNR/ASPNR/ASITN/
ASSR. May 22-29, 1999. San Diego, CA.
Program Director

WFITN 1999-World Scientific Conference
June 4-8, 1999. Vilamoura, Portugal
Executive Committee.

PAIRS 2016-Annual Scientific meeting
March 2016, Dubai, UAE
Chairman, Scientific Program Committee.

WFITN 2017-World Scientific Conference
October 2017, Budapest, Hungary
Chairman, Scientific Program Committee.

PAIRS 2018- Annual Scientific meeting
February 2018, Dubai, UAE
Member, Scientific Program Committee.

WFITN Course on Neurovascular Anatomy
July 22-25, 2018, Beirut- Lebanon
Faculty Member

LAU 2018 ISND Symposium
July 26- 27, 2018, Beirut- Lebanon
Course Director & Director of the Organizing Committee

ORGANIZATIONS:

American Society of Neuroradiology
Scientific Exhibit Committee, 1983, 1984
Radiological Imaging Committee, 1985
Program Committee, 1990

Radiological Society of North America

Harris County Medical Society

Texas Medical Society

European Society of Neuroradiology, 1990

World Federation of Interventional and Therapeutic
Neuroradiology, 1991

Secretary 1997-99

Vice President 1999-2001

President 2002-2004

American Society of Head & Neck Radiology, 1991

American Society of Interventional and Therapeutic
Neuroradiology

Founding Member 1992

Secretary 1994-1999

President Audit Committee

Executive Committee Member

American Society of Angiology, 2006

HONORS & AWARDS:

Summa Cum Laude Award: International Symposium
Neuroradiologicum, Washington, DC

Scientific Exhibit: Computed Tomography of the Brain
Stem with Intrathecal Metrizamide - October 1982.

Summa Cum Laude Award: American Society of
Neuroradiology, Boston, MA

Scientific Exhibit: Computed Tomography of the
Cervical Spinal Cord with Intrathecal Metrizamide

Award of Excellence, Department of Audiovisual
Services - Columbia University, College of Physician
and Surgeons - 1984

Certificate of Merit: Radiological Society of North
America. Chicago, IL

Scientific Exhibit: MR Imaging of the Fourth Ventricle
and Cerebral Aqueduct - Normal and Abnormal -
December 1986

Honorable Mention: Radiological Society of North
America. Chicago, IL

Scientific Exhibit: Neuroradiological Spectrum of
Neurofibromatosis - December 1986

Cum Laude Award: American Society of Neuroradiology.
Chicago, IL - May 1988

Scientific Exhibit: MRI of the Optic Pathway and Neuro-
Ophthalmic Disorders

Certificate of Merit: American Roentgen Ray Society. New Orleans, LA
Scientific Exhibit: MRI of the Basal Ganglia - May 1989

EDITORIAL BOARDS:

Interventional Neuroradiology - Official Journal of World Federation of Interventional & Therapeutic Neuroradiology

Journal of Neurovascular Disease

Journal of Computed Assisted Tomography

American Journal of Neuroradiology

Neurosurgery

SCIENTIFIC ADVISORY BOARDS:

Siemens Medical Systems, Germany
Cordis Endovascular Systems/Johnson & Johnson, USA
Guidant Corporation, USA
Medtronic AVE, USA
Nycomed Amersham Medical Systems, Norway
MicroTherapeutics, Inc., USA
Microvention, Inc., USA
Sequent, Inc., USA

INVENTORSHIP & PATENTS:

Retrievable Shielded Radiotherapy Implant
US Patent #:5,498,227
Date of Issue: March 12, 1996

Combination Angioplasty Balloon/ Stent Deployment Device.
US Patent #:6,071,286
Date of Issue: June 6, 2000

RESEARCH AND EDUCATIONAL GRANTS:

Research Grant from Siemens Medical Systems
To purchase and install a 1.5 Tesla MRI System, dedicated for the evaluation of Interventional MRI, MR Angiography and Ischemic Disease.
Value: \$2,000,000.00.

Research Funds for MRI PhD Support for 3 years
Value: \$65,000.00 x 3 years (\$195,000)
(Siemens Medical Systems)

Research Grant from Siemens Medical Systems to Purchase and install a state-of-the-art Angiographic Suite dedicated for animal research laboratory
Value: \$1,500,000.00

Educational Grants to fund the yearly Endovascular
Neuroradiology Workshop and Live Cases

\$360,000.00 – 2000

\$100,000.00 – 1998

\$100,000.00 - 1996

PUBLICATIONS:

1. Carmel P, **Mawad ME**: CT scanning of the posterior fossa. *Neurosurgery* 1982; 29:51-102
2. Ganti SR, Silver AJ, Hilal SK, **Mawad ME**, Sane P: Computed tomography of cerebellar hemangioblastoma. *J Comput Assist Tomogr* 1982; 6:912-919
3. **Mawad ME**, Silver AJ, Hilal SK, Ganti SR: Computed tomography of the brain stem with intrathecal metrizamide. Part I: Normal Anatomy. *ANJR* 1983;4:1-11; *AJR* 1983; 140:553-563
4. **Mawad ME**, Silver AJ, Hilal SK, Ganti SR: Computed tomography of the brain stem with intrathecal metrizamide. Part II: Lesions in and Around the brain stem. *AJNR* 1983; 4:13-19; *AJR* 1983; 140:565-571
5. Hilal SK, Maudsley AA, Simon HE, Perman WH, Bonn J, **Mawad ME**, Silver AJ, Ganti SR, Sane P, Chien IC: In vivo NMR imaging of tissue sodium in the intact cat before and after acute cerebral stroke. *AJNR* 1983; 4:245-249
6. Silver AJ, Jahn AF, Sane P, **Mawad ME**, Ganti SR, Hilal SK: Computed tomography of the anteverted auditory canal. *ANJR* 1983; 4:513-515
7. **Mawad ME**, Hilal SK, Fetell MR, Silver AJ, Ganti SR, Sane P: Patterns of spinal cord atrophy. *AJNR* 1983; 4:611-613
8. Ganti SR, Silver AJ, Diefenbach P, Hilal SK, **Mawad ME**, Sane P: Computed tomography of primitive neuroectodermal tumors. *AJNR* 1983; 4:819-821
9. Silver AJ, **Mawad ME**, Hilal SK, Ellis K, Ganti SR, Sane P, Blitzer A: Computed tomography of the cervical lymph nodes with intravenous contrast. *ANJR* 1983;4:861-864
10. Silver AJ, **Mawad ME**, Hilal SK, Sane P, Ganti SR: Computed tomography of the nasopharynx and related spaces. Part I: Anatomy. *Radiology* 1983; 147:725-731
11. Silver AJ, **Mawad ME**, Hilal SK, Sane P, Ganti SR: Computed tomography of the nasopharynx and related spaces. Part II: Pathology. *Radiology* 1983; 147:733-738
12. Silver AJ, **Mawad ME**, Hilal SK, Sane P, Ganti SR: Computed tomography of the carotid space and related cervical spaces. Part I: Anatomy. *Radiology* 1984;150:723-728
13. Silver AJ, **Mawad ME**, Hilal SK, Sane P, Ganti SR: Computed tomography of the carotid space and related cervical spaces. Part II: Neurogenic Tumors. *Radiology* 1984;150:729-735
14. **Mawad ME**, Hilal SK, Michelsen WJ, Stein B: Occlusive vascular disease associated with cerebral arteriovenous malformations. *Radiology* 1984;153:401
15. Moore T, Ganti SR, **Mawad ME**, Hilal SK: CT and angiography of primary extradural juxtaseellar tumors. *ANJR* 1985;6:521-526
16. Ganti SR, Hilal SK, Stein BM, Silver AJ, **Mawad ME**, Sane P: CT of pineal region tumors. *AJNR* 1986; 7:97-104

17. Simpson RK Jr, Fischer DK, Haber LM, **Mawad ME**, Rose JE: Coexistence of multiple arteriovenous malformations and an anomalous aortic arch. *Clinical Neurology and Neurosurgery* 1988; 90(2):169-73
18. Brown EW, Riccardi VM, **Mawad ME**, Handel S, Goldman A, Bryan RN: MR imaging optic pathways in patients with neurofibromatosis. *AJNR* 1987; 8:1031-6
19. Mawad ME, Rivera V, Crawford S, Ramirez A, Breitbach W. Spinal Cord Ischemia after Resection of Thoracoabdominal Aortic Aneurysms: MR Findings in 24 patients. *AJNR* 11:987-991, Sept/Oct 1990; *AJR* 155: Dec 90
20. Nichols FT 3rd, **Mawad M**, Mohr JP, Stein B, Hilal S, Michelsen WJ. Focal headache during balloon inflation in the internal carotid and middle cerebral arteries. *Stroke*. 1990 Apr;21(4):555-9
21. Chiang KS, Lee Y, **Mawad ME**. MR of Intraspinal Synovial Cyst: Rim Enhancement with Gadopentetate Dimeglumine. *AJR* Aug 1991;157:2:416
22. Robertson D, Kirkpatrick J, Harper R, **Mawad ME**. Spinal Intramedullary Ependymal Cyst: Report of Three Cases. *J of Neurosurgery* 75:312-316. 1991
23. Tan SB, Kozak JA, **Mawad ME**. The Limitations of Magnetic Resonance Imaging in the diagnosis of pathologic vertebral fractures. *Spine* 1991; 16:8: pp 919-23
24. Bryan RN, Caille Jm, Chakeres DW, DeBrun G, Dillon WP, Fram EK, Lo WW, Masaryk TJ, **Mawad ME**, Moody DM, et al. Highlights of the 29th annual meeting of the American Society of Neuroradiology, Washington, DC, June 9-14, 1991. *AJNR Am J Neuroradiol*. 1991 Nov-Dec; 12(6):1241-9
25. Rambo WM Jr, Narayan RK, **Mawad ME**. Cranial Dural Arteriovenous Malformations. *Contemporary Neurosurgery*. 1992;14:3
26. Nichols FT III, **Mawad ME**, Mohr JP, Hilal S, Adams RJ. Focal Headache during balloon inflation in the vertebral and basilar arteries. *Headache*. Feb 1993;33:2. pp 87-89
27. Carrier DA, **Mawad ME**, Kirkpatrick JB. Case Report. MR Appearance of an Orbital Leiomyoma *AJNR* 14:473-474, Mar/Apr 1993
28. Carrier DA, **Mawad ME**, Kirkpatrick JV. Metastatic Adenocarcinoma to the Brain: MR with pathologic correlation. *AJNR* 15:155-159. Jan 1994
29. Johnson FE, Farr SA, **Mawad M**, Woo YC. Testicular cytotoxicity of intravenous methotrexate in rats. *J Surg Oncol*. 1994 Mar;55(3):175-8
30. **Mawad ME**, Mawad JK, Cartwright J Jr, Gokaslan Z. Long-term Histopathologic Changes in Canine Aneurysms Embolized with Guglielmi Detachable Coils. *AJNR* 16:7-13. Jan 1995
31. **Mawad ME**, Klucznik RP. Giant Serpentine Aneurysms Characteristics, Radiographic Features and Endovascular Treatment. *AJNR* 16(5); 1053-60. May 1995
32. Lee AG, **Mawad ME**, Baskin DS. Fatal Subarachnoid Hemorrhage from the Rupture of a Totally Intracavernous Carotid Artery Aneurysm: Case Report. *Neurosurgery*, Vol. 38, No. 3, March 1996

33. Murayama Y, Malisch T, Guglielmi G, **Mawad ME**, Vinuela F, Duckwiler GR, Gobin YP, Klucznik RP, Martin NA, Frazee J. Incidence of cerebral vasospasm after endovascular treatment of acutely ruptured aneurysms: Report on 69 cases. *Journal of Neurosurgery*, 1997, Vol 87, issue 6, pp 830-835
34. Perez-Cruet MJ, Patwardhan RV, **Mawad ME**, Rose JE: Treatment of Dissecting Pseudoaneurysm of the Cervical Internal Carotid Artery Using a WallStent and Detachable Coils: Case Report. *Neurosurgery*, Vol 40, No. 3, March 1997
35. Vinuela F, Duckwiler G, **Mawad M**. Guglielmi detachable coil embolization of acute intracranial aneurysm: perioperative anatomical and clinical outcome in 403 patients. *J Neurosurg*. 1997 Mar;86(3):475-82
36. Doody RS, Massman PJ, **Mawad ME**, Nance M: Cognitive Consequences of Subcortical Magnetic Resonance Imaging Changes in Alzheimer's Disease: Comparison to Small Vessel Ischemic Vascular Dementia. *Neuropsychiatry, Neuropsychology & Behavioral Neurology*, Vol 11, No. 4, pp 191-199, 1998
37. Picard L, Negoro M, Ter Brugge K, **Mawad M**, Lasjaunias P, Vinuela F, Leonardi M, Richling B, Campos J, Berenstein A, Moret J. 1998 World Federation of Interventional and Therapeutic Neuroradiology. Guidelines for fellowship training programmes in interventional neuroradiology. *Interv Neuroradiol*. 1998 Sep 30;4(3):195-7
38. LaRosa FA, Lee AG, **Mawad ME**. "Delayed onset sixth nerve palsy due to a direct carotid cavernous fistula with anterior drainage and minimal external eye signs." *Journal of Neurovascular Disease*, Sept/Oct 1998, pp 219-221
39. Ciceri EF, Klucznik RP, Grossman RG, Rose JE, **Mawad ME**. Aneurysms of the posterior cerebral artery: Classification and Endovascular treatment. *AJNR* 22:27-34, January 2001
40. **Mawad ME**, Cekirge S, Ciceri E, Saatci I. Endovascular Treatment of Giant and Large Intracranial Aneurysms by using a Combination of Stent Placement and Liquid Polymer Injection. *J Neurosurg*. 96:474-482, 2002
41. Ishihara S, **Mawad ME**, Ogata K, Suzuki C, Tsuzuki N, Katoh H, Ohnuki A, Miyazawa T, Nawashiro H, Kaji T, Shima K. Histopathologic findings in human cerebral aneurysms embolized with platinum coils: report of two cases and review of the literature. *AJNR Am J Neuroradiol*. 2002-Jul;23(6):970-4
42. Viswanath NS, Karmonik C, King D, Rosenfield DB, **Mawad ME**. Functional Magnetic Resonance Imaging (fMRI) of a Stutterer's Brain during Overt Speech. *J Neuroimaging* 2003;13:1-00
43. Arat A, Ciceri E, Klucznik RP, **Mawad ME**, Rose J, Trask T, Grossman R. Endovascular Treatment of Ophthalmic Artery Aneurysms. *J Neurosurgery* 2003;98:248A
44. Saatci I, Cekirge HS, Ciceri EF, **Mawad ME**, Pamuk AG, Besim A. CT and MR imaging findings and their implications in the follow-up of patients with intracranial aneurysms treated with endovascular occlusion with onyx. *AJNR Am J Neuroradiol*. 2003 Apr;24(4):567-78

45. Arat A, Lopez G, Klucznik RP, Chiu D, **Mawad ME**. Stenting for the Treatment of Intracranial Atherosclerotic Disease. *J Neurosurgery* 2003;98:241A
46. **Mawad ME**. Endovascular treatment of intracranial aneurysms. "An update". *Interv Neuroradiol.* 2003 Oct 10;9(Suppl 2):83-5. Epub 2004 Oct 22
47. Morsi H, Benndorf G, Klucznik R, **Mawad M**. Transvenous occlusion of a dural cavernous sinus fistula using a new expandable hydrogel-platinum coil (hydrocoil (r)). *Interv Neuroradiol.* 2004 Jun 29; 10(2):151-4. Epub 2004 Oct 22
48. Arat YO, **Mawad ME**, Boniuk M. Orbital venous malformations: current multidisciplinary treatment approach. *Arch Ophthalmol.* 2004 Aug;122(8):115-8
49. Karmonik C, Arat A, Benndorf G, Akpek S, Klucznik R, **Mawad M**, Strother CM. A technique for improved quantitative characterization of intracranial aneurysms. *AJNR Am J Neuroradiol.* 2004 Aug;25(7):1158-61
50. Akpek S, Morsi H, Benndorf G, Strother CM, **Mawad ME**. Reconstruction of the basilar tip with T stent configuration for treatment of a wide-neck aneurysm. *J Vasc Interv Radiol.* 2004 Sep;15(9):1024-6
51. Akpek S, Arat A, Morsi H, Kluczick RP, Strother CM, **Mawad ME**. Self-expandable stent-assisted coiling of wide-necked intracranial aneurysms: a single-center experience. *AJNR Am J Neuroradiol.* 2005 May;26(5):1223-31
52. Moron FE, Klucznik RP, **Mawad ME**, Strother CM. Endovascular treatment of high-flow carotid cavernous fistulas by stent-assisted coil placement. *AJNR Am J Neuroradiol.* 2005 Jun-Jul;26(6)1399-404
53. Benndorf G, Strother CM, Claus B, Naeini R, Morsi H, Klucznik R, **Mawad ME**. Angiographic CT in cerebrovascular stenting. *AJNR Am J Neuroradiol.* 2005 Aug;26(7):1813-8
54. Gillinov AM, Blackstone EH, Rajeswaran J, **Mawad M**, McCarthy PM, Sabik JF 3rd, Shiota T, Lytle BW, Cosgrove DM. Ischemic versus degenerative mitral regurgitation: does etiology affect survival? *Ann Thorac Surg.* 2005 Sep;80(3):811-9; discussion 809
55. Karmonik C, Strother CM, Chen X, Deinzer F, Klucznik R, **Mawad ME**. Stent-assisted coiling of intracranial aneurysms aided by virtual parent artery reconstruction. *AJNR Am J Neuroradiol.* 2005 oct;26(9):2368-70
56. Cekirge HS, Saatci I, Ozturk MH, Cil B, Arat A, **Mawad M**, Ergungor F, Belen D, Turk S, Bavbek M, Sekerci Z, Beskonakli E, Oxcan OE, Ozgen T. Late angiographic and clinical follow-up results of 100 consecutive aneurysms treated with Onyx reconstruction: largest single-center experience. *Neuroradiology.* 2006 Feb;48(2):113-26. Epub 2006 Jan 4
57. Benndorf G, Klucznik R, Meyer D, Strother CM, **Mawad ME**. "Cross-over" technique for horizontal stenting of an internal carotid bifurcation aneurysm using a new self-expandable stent: technical case report. *Neurosurgery.* 2006 Feb;58(1 Suppl):ONS-E172; discussion ONS-E172
58. Tan LH, Johnson BA, **Mawad ME**, Chang AC. Neonate with vein of Galen malformation and heart failure: serial changes in plasma B-type natriuretic peptide following endovascular embolization. *Pediatr Cardiol.* 2006 Mar-Apr;27(2):276-8. Epub 2006 Feb 20

59. Choi IS, Lasjaunias P, Picard L, Mracard S, Byrne L, Feng L, Flodmark o, Goulao A, Leonardi M, **Mawad M**, et al. Standards of Practice in Interventional Neuroradiology or Endovascular Neurosurgery. WFITN Site Conditions and Technical Operations Guidelines. *Interv Neuroradiol*. 2006 Mar 15;12(1):7-8. Epub 2006 June 15
60. Jou LD, Mohamed A, Lee DH, **Mawad ME**. 3D rotational digital subtraction angiography may underestimate intracranial aneurysms: findings from two basilar aneurysms. *AJNR Am J Neuroradiol*. 2007 Oct;28(9):1690-2. Epub 2007 Sep 24
61. Ke, S., Adams, K.E., Kwon, S., Laing, F., Fan, Z., Lu, Y., Hirschi, K., **Mawad M.E.**, Barry, M.A., and Sevick-Muraca, E.M. Comparison of visible and nearinfrared wavelength-excitable fluorescent dyes for molecular imaging of cancer. *J Biomed Opt*, 12:024017, 2007
62. Sampath Lakshimi, Kwon Sunkuk, Ke Shi, Wang Wei, Schiff Rachel, **Mawad M.E.**, and Eva M. Sevick-Muraca. Dual-Labeled Trastuzumab-Based Imaging Agent for the Detection of Human Epidermal Growth Factor Receptor 2 Overexpression in Breast Cancer. *J Nuc Med* 2007;48:9,1501-1510
63. Lee DH, Arat A, Morsi H, Diaz O, Jou L-D, **Mawad ME**. Intimal Thickening after Placement of a Neuroform Stent: Its Incidence and Relation to Angiographic Follow-up Results of Aneurysm Embolization. *Interventional Neuroradiology* 13:239-246, 2007
64. Sharma, R., Wang, W., Rasmussenm J.C., Joshi, A., Houston, J.P., Adams, K.E., Cameron, A.G., Ke, S., Kwon, S., **Mawad M.E.**, and Sevick, E.M. Quantitative imaging of lymph function. *Am J Physiol Heart Circ Physiol*, 2007
65. Wang, W., Ke, S., Kwon, S., Yallampalli, S., Cameron, A.G., Adams, K.E., **Mawad M.E.**, and Sevick-Muraca, E.M. A new optical and nuclear dual-labeled imaging agent targeting interleukin 11 receptor alpha-chain. *Bioconjug Chem*, 18:397-402, 2007
66. Foster, A.E., Kwon, S., Ke, S., Lu, A., Eldin, K., Sevick-Muraca, E., and Rooney, C.M. In vivo fluorescent optical imaging of cytotoxic T lymphocyte migration using IRDye800CW near infrared dye. *Appl Opt*, 47: 5944-5952, 2008
67. Sevick-Muraca EM, Sharma R, Rasmussen JC, Marshall MV, Wendt JA, Pham HQ, Bonefas E, Houston JP, Sampath L, Adams KE, Blanchard DK, Fisher RE, Chiang SB, Elledge R, **Mawad ME**. Imaging of lymph flow in breast cancer patients after microdose administration of a near-infrared fluorophore: feasibility study. *Radiology*. 2008 Mar;246(3):734-41. Epub 2008 Jan 25
68. Zaidat OO, Klucznik R, Alexander MJ, Choloupka J, Lutsep H, Barnwell S, **Mawad M**, Lane B, Lynn MJ, Chimowitz; NIH Multi-center Wingspan Intracranial Stent Registry Study Group. The NIH registry on use of the Wingspan stent for symptomatic 70-99% intracranial arterial stenosis. *Neurology*. 2008 Apr 22;70(17):1518-24. Epub 2008 Jan 30
69. Johnston SC, Dowd CF, Lawton MT, Gress Dr, Higashida RT, Halbach VV, Zhao S, Katsura KH, Fong KJ, Douglas VC, Ventura R, Elkins JS, Nguyen-Huynh MN, McDougall CG, Spetzler RF, Zabramski JM, Jahnke HK, Piepgras DG, Nichols DA, Gravenhof DR, Herzig D, **Mawad ME**, et al. Predictors and outcomes of intraprocedural rupture in patients treated for ruptured intracranial aneurysms; the CARAT study. *Stroke*. 2008 May;39(5):1501-6. Epub 2009 Mar 6

70. Lee DH, Arat A, Morsi H, Shaltoni H, Harris JR, **Mawad ME**. Dual Antiplatelet Therapy Monitoring for Neurointerventional Procedures Using a Point-of-Care Platelet Function Test: A Single-Center Experience. *Am J Neuroradiology* 29:1389094, August 2008
71. Chamoun RB, **Mawad ME**, Whitehead WE, Luerssen TG, Jea A., Extracranial traumatic carotid artery dissections in children: a review of current diagnosis and treatment options. *J Neurosurg Pediatr.* 2008 Aug;2(2):101-8
72. Jou LD, Lee DH, Morsi H, **Mawad ME**, Wall shear stress on ruptured and unruptured intracranial aneurysms at the internal carotid artery. *AJNR Am J Neuroradiol.* 2008 Oct;29(9):1761-7. Epub 2008 Jul 3
73. Nahab F, Lynn MJ, Kasner SE, Alexander MJ, Klucznik R, Zaidat OO, Chaloupka J, Lutsep H, Barnwell S, **Mawad M**, et al. Risk factors associated with major cerebrovascular complications after intracranial stenting. *Neurology.* 2009 Jun 9;72(23):2014-9. Epub 2009 Mar 18
74. Lee DH, Arat A, Morsi H, Jou LD, **Mawad ME**. Embolization of Cerebral Aneurysms with Spherically Shaped Detachable Microcils (MicroSphere Microcoil System). A Single Center Experience. *Interv Neuroradiol.* 2009 Mar 31;15(1):29-36. Epub 2009 Apr 15
75. Kitagawa RS, **Mawad ME**, Whitehead WE, Curry DJ, Luerssen TG, Jea A. Paraspinal arteriovenous malformations in children. *J Neurosurg Pediatr.* 2009 May;3(5):425-8
76. Chern JJ, Chamoun RB, **Mawad ME**, Whitehead WE, Curry DJ, Luerssen TG, Jea A. Endovascular stenting of traumatic extracranial carotid artery dissections in the pediatric population: a case report. *Cases J.* 2009 Oct 28;2:171
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77. WALN. July 13-16, 1997. Beirut, Lebanon
78. **Mawad ME.** Therapeutic Neuroradiology: Aneurysms, Acute Stroke and Carotid Disease. Houston Neurological Society Meeting. September 10, 1997
79. Klucznik RP; Chi TL; Lefler J; Rose JA; Grossman RG; **Mawad ME.** Endovascular Treatment of Superior Hypophyseal Aneurysms with Guglielmi Detachable Coils. The Methodist Experience. ASITN. September 13-16, 1997. New York, NY
80. **Mawad ME;** Mawad JK; Klucznik RP; Rose JE; Vermani R. Long-term (1-1/2 year) Histopathologic Finding in Experimental Canine Aneurysms Treated with Guglielmi Detachable Coils. The Presence of New Endothelial Layer. ASITN. September 13-16, 1997. New York, NY
81. **Mawad ME;** Klucznik RP; Moret J. Intranidal Obliteration of Cerebral AVMs with N-butylcyanoacrylate: Technical Factors. ASITN. September 13-16, 1997. New York, NY
82. **Mawad ME.** Management of Hemorrhagic Stroke. North American Stroke Meeting. October 16-18, 1997. Montreal, Canada
83. Endovascular Treatment of Intracranial Aneurysms. October 30-31, 1997. Florence, Italy
84. **Mawad ME.** Endovascular Treatment of Acutely Ruptured Aneurysms. 13th Annual Japanese Society of Intravascular Neurosurgery. November 20-21, 1997. Okayama, Japan
85. **Mawad ME.** Therapeutic Neuroradiology Treatment of Aneurysms, Acute Stroke & Carotid Artery Disease. Houston Neurological Society. September 10, 1997. Houston, TX
86. **Mawad ME;** Klucznik RP; Rose JE; Grossman RG. Endovascular Treatment of Berry Aneurysms with Guglielmi Detachable Coils: Long-term Clinical Outcome. ASITN with AANS/CNS Cerebrovascular Section. February 1-4, 1998. Orlando, FL
87. Weathers SW; Lefler JE; Taber KH; **Mawad ME;** Klucznik RP; Hayman LA; Diaz-Marchan PJ; Goldfield SH. P93 – Exploiting the Practical Advantages of Stereoscopic Cerebral Angiography. ASITN and AANS/CNS Cerebrovascular Section. February 1-4, 1998. Orlando, FL
88. Kirsch CFE; Hayman LA; Taber KH; Lefler JE; Setton A; Pryor J; **Mawad ME;** Klucznik RP. Comprehensive Vascular Schematics of the Orbit and Craniofacial Vasculature with Angiographic Correlation. ASNR – May 14-16, 1998. Philadelphia, PA
89. **Mawad ME.** Invited Speaker. Harvard Medical School. May 22-24, 1998. Boston, MA

90. **Mawad ME.** Invited Speaker – Endovascular Treatment of Cerebral AVMs. Annual ZAO Meeting. August 10-14, 1998. Sendai, Japan
91. **Mawad ME.** Invited Speaker – Endovascular Management of Intracranial Aneurysms. Annual ZAO Meeting. August 10-14, 1998. Sendai, Japan
92. **Mawad, ME.** Interventional Neuroradiology. Imaging Perspective V: Advanced Body and Neuroimaging – CT and MRI. October 17-18, 1998. Houston, TX
93. Ciceri E., Klucznik R., **Mawad M.**, Aneurysmal SAH associated with intracranial Arteriovenous Malformations (AVMs). 19th Annual Meeting of the Working Group in Interventional Neuroradiology. Val D'Isere, France, January 15-18, 1999
94. Ciceri E., Klucznik, R., **Mawad M.**, Transient Cerebral Edema following embolization of cerebral AVM's. 19th Annual Meeting of the Working Group in Interventional Neuroradiology. Val D'Isere, France. January 15-18, 1999
95. Ciceri E., Klucznik, R., **Mawad M.**, Association of aneurysmal SAH with intracranial Arteriovenous Malformations (AVMs). 19th Annual Meeting of the Working Group in Interventional Neuroradiology. Val D'Isere, France, January 15-18, 1999
96. **Mawad ME.** Management of Carotid Artery Disease: Carotid Angioplasty. 9th International Symposium of Interventional Neuroradiology. January 28-30, 1999. Mexico City, Mexico
97. **Mawad ME.** Vascular Rescue: Intra-arterial Thrombolysis. 9th International Symposium of Interventional Neuroradiology. January 28-30, 1999. Mexico City, Mexico
98. **Mawad ME.** The Role of Fibrinolysis in Vertebrobasilar Vascular Disease. 9th International Symposium of Interventional Neuroradiology. January 28-30, 1999. Mexico City, Mexico
99. **Mawad ME.** Endovascular Treatment of Acutely Ruptured Aneurysms. 9th International Symposium of Interventional Neuroradiology. January 28-30, 1999. Mexico City, Mexico
100. **Mawad ME.** Endovascular Treatment of Unruptured Cerebral Aneurysms. 1999 Joint Meeting of the Section on Cerebrovascular Surgery of the AANS/CNS and ASITN. Nashville, TN. January 31-February 3, 1999
101. **Mawad ME.** Endovascular Management of Acute Ischemic Stroke. 4th Annual of Cerebral Vascular Pathology. Buenos Aires, Argentina. April 6-9, 1999
102. **Mawad ME.** Endovascular Treatment of AVMs. 4th Annual of Cerebral Vascular Pathology. Buenos Aires, Argentina. April 6-9, 1999
103. **Mawad ME.** Angioplasty and stenting. Indications, techniques, complications and limitations of the procedure. 4th Annual of Cerebral Vascular Pathology. Buenos Aires, Argentina. April 6-9, 1999
104. **Mawad ME.** Endovascular treatment of cerebral aneurysms- Will it replace microsurgery. 4th Annual of Cerebral Vascular Pathology. Buenos Aires, Argentina. April 6-9, 1999

105. Al Araj, Ali; **Mawad ME**. Endovascular Treatment of Experimental Canine Aneurysms with EVOH. Annual Meeting of the World Association of Lebanese Neurosurgeons. May 17-21. Beirut, Lebanon
106. **Mawad ME**. Moderator – Focus Session – Advanced Imaging and Neurointervention Joint Annual Meeting – ASNR/ASHNR/ASPNR/ASITN/ASSR. May 26-29, 1999. San Diego, CA
107. **Mawad ME**. Interventional: Dural AV Fistula/Stroke/Aneurysm. Joint Annual Meeting – ASNR/ASHNR/ASPNR/ASITN/ASSR. May 26-29, 1999. San Diego, CA
108. **Mawad ME**. Endovascular Treatment of Ruptured Aneurysms. Symposium in Neurosurgery. University of Hacettepe. June 7-11, 1999. Ankara, Turkey
109. **Mawad ME**. Endovascular Management of Intracranial AVMs. Symposium in Neurosurgery. University of Hacettepe. June 7-11, 1999. Ankara, Turkey
110. **Mawad ME**. Long-term And Clinical Outcome of GDC Embolization of Intracranial Aneurysms: USA/Canada Experience. Invited Speaker. Bi-Annual Meeting of World Federation of Interventional and Therapeutic Neuroradiology. June 28-July 2, 1999. Vilamoura, Portugal
111. Ciceri E., Klucznik, R., **Mawad M**. Endovascular treatment of anterior communicating artery Aneurysms. Bi-Annual Meeting of World Federation of Interventional and Therapeutic Neuroradiology. Vilamoura, Portugal, June 3-7, 1999
112. Ciceri E., Klucznik, R., **Mawad M**. Association of aneurysmal SAH with intracranial Arteriovenous Malformations (AVMs.) Bi-Annual Meeting of World Federation of Interventional and Therapeutic Neuroradiology, Vilamoura, Portugal, June 3-7, 1999
113. Moret J; **Mawad ME**. Treatment of Experimental Aneurysms with Embolyx: Technique and Preliminary Results. Bi-Annual Meeting of World Federation of Interventional and Therapeutic Neuroradiology. June 28-July 2, 1999. Vilamoura, Portugal
114. **Mawad ME**. Angioplasty and Stenting of Atherosclerotic Disease of the Carotid and Vertebral Artery. LINC II Course. October 4-8, 1999. Paris, France. Presenter and Cohost
115. **Mawad ME**. Visiting Professor – University of Hacettepe Affiliated Hospitals. December 1999. Ankara, Turkey
116. **Mawad ME**. Visiting Professor – University of Hacettepe Affiliated Hospitals. January 2000. Ankara, Turkey
117. **Mawad, ME**; Klucznik RP; Ciceri EF. Treatment of Aneurysms with liquids New advances in Endovascular Treatment of Aneurysms. Val D'Isere, France. January 17-19, 2000
118. **Mawad ME**. Moderator – Decision Making and Management of Unruptured Intracranial Aneurysms and Speaker - “Advanced Endovascular Techniques.” CNS Section in Cerebrovascular Surgery and American Society of Interventional and Therapeutic Neuroradiology (ASITN). February 7-8, 2000. New Orleans, LA
119. **Mawad ME**. Invited Visiting Professor and Moderator - South American Working Group in Diagnostic and Therapeutic Neuroradiology. March 13, 2000. Montevideo, Uruguay

120. **Mawad ME.** Endovascular Treatment of Aneurysms with Liquid Polymers. South American Working Group in Diagnostic and Therapeutic Neuroradiology. March 13, 2000. Montevideo, Uruguay
121. **Mawad ME.** New advances in Endovascular Treatment of Aneurysms. South American Working Group in Diagnostic and Therapeutic Neuroradiology. March 13, 2000. Montevideo, Uruguay.
122. **Mawad ME.** Visiting Professor – University of Hacettepe Affiliated Hospitals. April 10-15, 2000. Ankara, Turkey
123. Ciceri EF; Dickerson J; Klucznik RP; Moret J; **Mawad ME.** Embolization of Experimental Porcine Aneurysms with a Combination Platinum Coils & Hydrogel Material. ASNR. April 3-8, 2000. Atlanta, GA
124. **Mawad ME.** Moderate – Interventional, Aneurysms – Scientific Papers. 38th Annual Meeting of the American Society of Neuroradiology. April 3-8, 2000. Atlanta, GA.
125. Ciceri EF; Klucznik RP; Trask T; **Mawad ME.** Reversal Cerebral Edema following Endovascular Obliteration of Arteriovenous Malformations with N-Butyl-cyanoacrylate (NBCA). American Society of Neuroradiology. April 3-8, 2000. Atlanta, GA
126. **Mawad ME,** Ciceri EF; Klucznik RP; King DE, et al. Fusion of Multiple Modality 3D Data Sets in the Pretreatment Evaluation of Cerebral Arteriovenous Malformations. ASNR. April 3-8, 2000. Atlanta, GA
127. Ciceri EF; Klucznik RP; **Mawad ME.** Percutaneous Treatment of Vascular Lesions of the Scalp with NBCA. ASNR. April 3-8, 2000. Atlanta, GA
128. **Mawad, ME.** Angioplasty - stenting of carotid artery treatment of acutely ruptured aneurysms. Pan Arab Neurology Meeting. April 16, 2000. Beirut, Lebanon
129. Ciceri EF; **Mawad ME;** Klucznik RP. Endovascular Management, Efficacy and Risk The Role of Embolization in AVMs. UCSF Medical Center & Mass General's Neurovascular Update: The New Millennium. May 25-26, 2000. San Francisco, CA. Invited Speaker
130. **Mawad ME.** Visiting Professor - University of Hacettepe Affiliated Hospitals. May 2000 Ankara, Turkey
131. **Mawad ME.** Visiting Professor – University of Hacettepe Affiliated Hospitals. June 2000. Ankara, Turkey
132. **Mawad ME.** Panelist on Coil Treatment II, 13th Annual INR Peer Review Conference, Jackson Hole, WY, July 26-29, 2000
133. **Mawad ME.** Embolization of Cerebral Aneurysms. III Brazilian Congress of Neuroradiology. August 25-27, 2000. Gramado, Brazil. Invited Speaker
134. **Mawad ME.** Endovascular Treatment of Stroke-Stents. III Brazilian Congress of Neuroradiology. August 25-27, 2000. Gramado, Brazil. Invited Speaker
135. **Mawad ME.** New devices for Cerebral Aneurysms. III Brazilian Congress of Neuroradiology. August 25-27, 2000. Gramado, Brazil. Invited Speaker

136. **Mawad ME**, Ciceri EF, Klucznik RP. Endovascular Treatment of Saccular Aneurysms with Liquid Adhesive. European Society of Neuroradiology. September 10-13, 2000. Oslo, Norway
137. **Mawad ME**, Ciceri EF, Klucznik RP. Endovascular Treatment of Large Intracranial Aneurysms. European Society of Neuroradiology. September 10-13, 2000. Oslo, Norway.
138. **Mawad ME**. Endovascular Treatment of Complex Aneurysms: New Advances. 16th Annual Meeting of the Japanese Society for Intravascular Neurosurgery (JSIN). November 17-19, 2000. Sendai, Japan. Invited Speaker
139. **Mawad ME**. Endovascular Treatment of Intracranial Aneurysms: Long-Term Efficacy, Mortality and Morbidity. 16th Annual Meeting of the Japanese Society for Intravascular Neurosurgery (JSIN). November 17-19, 2000. Sendai, Japan. Invited Speaker
140. **Mawad ME**, Ciceri EF, Klucznik RK. Endovascular treatment of cerebral aneurysms with a combination of metallic stents and GDC. Val d'Isere, France. January 16-19, 2001
141. **Mawad ME**, Ciceri EF. Development of a radioactive embolic agent. Val d'Isere, France. January 16-19, 2001
142. **Mawad ME**, Ciceri CF, Cekirge S. Endovascular treatment of cerebral aneurysms with a combination of metallic stent and liquid polymer. Val d'Isere, France. January 16-19, 2001.
143. **Mawad ME**, Ciceri EF, Klucznik RP, Chiu D. Angioplasty and stenting of intracranial atherosclerotic disease. Val d'Isere, France. January 16-19, 2001.
144. **Mawad ME**, Ciceri EF, Cekirge C, Moret J. Endovascular treatment of cerebral aneurysms with the liquid polymer Onyx. Val d'Isere, France. January 16-19, 2001
145. **Mawad ME**. Update on Carotid and Intracranial Stenting. 3rd Annual Southwest Percutaneous Vascular Interventions Meeting (SPVI-III) and Concurrent Symposium for Cath Lab Professionals. January 25-27, 2001. Houston, Texas
146. **Mawad ME**. Endovascular Management of Aneurysms/Stents. Panel 11: Vascular Management in Skull Base Surgery. North American Skull Base Society. Lake Buena Vista, FL. March 3-6, 2001
147. **Mawad ME**, Ciceri EF, Klucznik RP, Wu S, Berner B, Reece D. Development of a Radioactive Embolic Agent for the Endovascular Treatment of Vascular Neoplasms and Malformations: Preliminary Animal Experiments. ASNR. April 21-27, 2001. Boston, MA
148. **Mawad ME**, Chiu D, Klucznik RP, Ciceri EF. Angioplasty and Stenting of Intracranial Atherosclerotic Disease. ASNR. April 21-27, 2001. Boston, MA
149. **Mawad ME**, Klucznik RP, Ciceri EF, Cekirge C, Moret J. Endovascular Treatment of Cerebral Aneurysms with the Liquid Polymer Onyx: Initial Clinical Experience. ASNR. April 21-27, 2001. Boston, MA
150. **Mawad ME**. Endovascular Treatment of Aneurysms: Where Do We Stand? ASNR. April 21-27, 2001. Boston, MA

151. **Mawad ME**, Ciceri EF, Cekirge C, Klucznik RP, Saatci I. Endovascular treatment of complex aneurysms with a combination of metallic stent and liquid polymer. ASNR. April 21-27, 2001. Boston, MA
152. **Mawad ME**. Interventional: Aneurysms. ASNR. April 21-27, 2001. Boston, MA
153. **Mawad ME**. Middle Eastern Medical Association, May 7-11, 2001. Beirut, Lebanon. Presented Live Interventional **Neuroradiology Case** and lecture
154. **Mawad ME**. 3rd Global Endovascular Complication Seminar. July 25-27, 2001. Jackson Hole, WY. Invited Speaker
155. **Mawad ME**. Angioplasty and Stenting of Intracranial Atherosclerotic Disease. WFITN 2001, September 23-26, 2001. Seoul, Korea
156. **Mawad ME**. Development of a Radioactive Embolic Agent for the Endovascular Treatment of Vascular Neoplasms and Malformations: Preliminary Animal Experiments. WFITN 2001, September 23-26, 2001. Seoul, Korea
157. **Mawad ME**. Evaluation of the Toxicity of Liquid Polymer (Onyx) in the Subarachnoid Space in a Rabbit Model. WFITN 2001, September 23-26, 2001. Seoul, Korea
158. **Mawad ME**. Endovascular Treatment of Aneurysms with Platinum Coils: The North American Experience. WFITN 2001, September 23-26, 2001. Seoul, Korea
159. **Mawad ME**. Endovascular Treatment of Cerebral Aneurysms with the Liquid Polymer Onyx: Initial Clinical Experience. WFITN 2001, September 23-26, 2001. Seoul, Korea.
160. **Mawad ME**. Endovascular Treatment of Complex Aneurysms with a Combination of Metallic Stent and Liquid Polymer. WFITN 2001, September 23-26, 2001. Seoul, Korea
161. **Mawad ME**. Treatment of Intracranial Atherosclerotic Disease with Metallic Stents. WFITN 2001, September 23-26, 2001. Seoul, Korea
162. **Mawad ME**. LINC Course. October 7-10, 2001. Paris, France. Presenter and Cohost
163. **Mawad ME**. RSNA. November 26-28, 2001. Chicago, IL
164. **Mawad ME**. Angioplasty and Stenting of Intracranial Atherosclerotic Disease. January 14-18, 2002. Val d'Isere, France
165. **Mawad ME**. Endovascular Treatment of Experimental Porcine Aneurysms with Liquid Polymer- New Techniques. January 14-18, 2002. Val d'Isere, France
166. **Mawad ME**. Technical and Clinical Considerations in the Endovascular Management of Intracranial Aneurysms. Faculty. AANS/CNS Section on Cerebrovascular Surgery and ASITN. February 3-6, 2002. Dallas, Texas
167. **Mawad ME**. Luncheon Seminar 03 – Management of Giant Intracranial Aneurysms. Co-Moderator. AANS/CNS Section on Cerebrovascular Surgery and ASITN. February 3-6, 2002. Dallas, Texas

168. **Mawad ME.** Scientific Symposium V: The Incidental and Unruptured Aneurysm. Co-Moderator. AANS/CNS Section on Cerebrovascular Surgery and ASITN. February 3-6, 2002. Dallas, Texas
169. Arat, A., **Mawad ME.**, Klucznik, R. Endovascular Treatment of Anterior Cerebral Artery Aneurysms. American Society of Neuroradiology 40th Annual Meeting. May 13 – 17, 2002. Vancouver, British Columbia, Canada
170. **Mawad ME.** 4th Global Endovascular Complication Seminar. July 24-27, 2002. Jackson Hole, WY. Invited Speaker
171. Shaya MR, Arat A, Ciceri E, Klucznik RP, Trask T, Rose J, Grossman R, **Mawad ME.** Endovascular Treatment of Intracranial Aneurysms: Single Institution Experience of 875 cases. XVIIth Symposium Neuroradiologicum. Paris, France. August 19-23, 2002
172. Arat A, Shaya M, Lopez G, Klucznik R, Chiu D, **Mawad ME.** Angioplasty and Stenting for Intracranial Atherosclerotic Disease. XVIIth Symposium Neuroradiologicum. Paris, France. August 19-23, 2002
173. Arat A, Shaya M, Klucznik R, Cekirge S, **Mawad M.** Angiographic Determination of the Effect of Metallic Stents on Intracranial Vessels. XVIIth Symposium Neuroradiologicum. Paris, France. August 19-23, 2002
174. ***Mawad M.** Istanbul, Turkey. September 9, 2002
175. **Mawad ME.** Pathophysiology of Vascular Disease. Moderator. Endovascular Neuroradiology Workshop and Live Cases. Houston, Texas. October 13-16, 2002.
176. **Mawad ME.** Angioplasty and Stenting of Intracranial Atherosclerotic Disease. Endovascular Neuroradiology Workshop and Live Cases. Houston, Texas. October 13-16, 2002
177. **Mawad ME.** Treatment of Aneurysms with Liquid Polymer (Onyx). "Intimidating" Cerebro-Vascular Diseases: Current Opinions, Treatment Options, Outcome and Pitfalls. Vicoforte di Mondovi, Cuneo, Italy. October 24-26, 2002
178. **Mawad ME.** Angioplasty and Stenting of Intracranial Atherosclerotic Disease. "Intimidating" Cerebro-Vascular Diseases: Current Opinions, Treatment Options, Outcome and Pitfalls. Vicoforte di Mondovi, Cuneo, Italy. October 24-26, 2002
179. **Mawad ME.** Endovascular Management of Intracranial Atherosclerotic Disease. 5th Asian-Australasian Federation of Interventional and Therapeutic Neuroradiology. Hong Kong, China. November 9-11, 2002
180. **Mawad M.** New Advances in the Endovascular Treatment of Aneurysms. 5th Asian- Australasian Federation of Interventional and Therapeutic Neuroradiology. Hong Kong, China. November 9-11, 2002
181. **Mawad M.** Moderator – Case and Demonstration. Aneurysms. 5th Asian- Australasian Federation of Interventional and Therapeutic Neuroradiology. Hong Kong, China. November 9-11, 2002

182. Arat A, Ciceri E, Lopez G, Klucznik R, Strother C, **Mawad M**. Angiography and Stenting of Intracranial Atherosclerotic Disease. Val d'Isere, France. January 13-17, 2003
183. Arat A, Klucznik R, Strother C, **Mawad M**. Matrix Coils: Early Clinical Experience. Val d'Isere, France. January 13-17, 2003
184. **Mawad M**. GDC Coiling of Unruptured Aneurysms. 28th International Stroke Conference. Phoenix, Arizona. February 14-15, 2003
185. **Mawad M**. Current Devices for the Management of Intracranial Aneurysms. AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology Annual Meeting. Phoenix, Arizona. February 16-19, 2003
186. **Mawad M**. Management of Giant Intracranial Aneurysms. Panelist. AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology Annual Meeting. Phoenix, Arizona. February 16-19, 2003
187. **Mawad M**. Expert Approaches to Complex Aneurysm Treatment. AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology Annual Meeting. Phoenix, Arizona. February 16-19, 2003
188. **Mawad M**. Treatment of Aneurysm Rupture and Other Endovascular Complications during Coiling. AANS/CNS Section on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology Annual Meeting. Phoenix, Arizona. February 16-19, 2003
189. **Mawad M**. Endovascular Update. 6th Annual Winter Conference. Texas Neurological Society. February 21, 2003. Austin, Texas
190. Recent Advances in the Treatment and Prevention of Stroke”, The Partnership for Baylor, River Oaks Country Club, March 18, 2003
191. Karmonik C, Arat A, Strother CM, Klucznik RP, **Mawad ME**. Semiautomated 3D Classification and Visualization of Single Wall Intracranial Aneurysms. 20th Annual Conference on Biomedical Engineering Research. Houston, Texas. April 4, 2003
192. **Mawad M**. Neuroradiological Update. Texas Radiological Society 90th Annual Scientific Meeting. The Woodlands, Texas. April 4-6, 2003
193. Program Co-Director, moderator, presented “Venous Vascular Lesions: Diagnosis and Sclerotherapy”, 6th Houston Plastic Surgery Seminar – Hemangiomas and Vascular Malformations: Multidisciplinary Management, Houston, Texas, June 28, 2003
194. New Advances in the Treatment of Intracranial Aneurysm, Management of Intracranial Atherosclerotic Disease and Advances in Management of Neurovascular Disease, International Symposium, King Faisal Hospital and Research Center, Saudi Arabia, October 6-7, 2003
195. The Future of Radiology and Endovascular Management of Stroke, 2nd International Conference of Royal Jordanian Medical services, October 7-10, 2003
196. Endovascular Treatment of Intracranial Atherosclerotic Disease, Houston Neurological Society Meeting, September 17, 2003

197. Stenting of Intracranial Atherosclerotic Disease, Baylor College of Medicine Department of Cardiology Grand Rounds, October 23, 2003
198. Interventional Strategies in Stroke, Current Neurology 2003, Houston, Texas, November 14, 2003
199. "Endovascular Management of Intracranial Arteriosclerotic Disease", Harris County Neurological Society, Houston, Texas, May 12, 2004
200. "Embo Strategies for Aneurysms in the Paraclinoid Location – True Risks and Efficacy" and "Giant Intracranial Aneurysms: Endovascular Strategies and Results", Neurovascular Update Aneurysms: Current Challenges and Future Directions, Harvard Medical School, Boston, Massachusetts, June 17-18, 2004
201. "Endovascular Frontiers: What's Next?", International Stroke Conference 2008, American Heart Association and American Stroke Association, New Orleans, Louisiana, February 20-22, 2008
202. Management of Intracranial Aneurysm, Annual Meeting ESNR, AINR, Napoli, Italy, September 2015
203. 1. "Management of Cerebral AVM", 2. "Flow Diversion in Intracranial Aneurysm", The LSN 7th International Congress, Beirut, Lebanon, November 2015
204. Stroke Symposium - Acute Stroke, Cordis & Beoringer, Abu Dhabi, UAE, February 5-6 2016
205. "Management of Complex Aneurysm", Interventional Neuroradiology Key Opinion Leader Meeting, Hamburg, Germany, February 15-16 2016
206. "Renal Aneurysms", 4TS 2016- Top To Toe Trans catheter Solutions, Dubai, UAE, February 18-19 2016
207. 4th International Conference on Radiation Medicine (ICRM2016), Riyadh, Saudi Arabia, February 2016
208. "Controversies In Stroke", Neurology Symposium, Cleveland Clinic Abu Dhabi, Abu Dhabi, UAE, February 2016
209. "Neuroscience Updates & Upgrade Theory and Practise, 2016 SEHA International Conference, Abu Dhabi, UAE, February 2016
210. 1. "Update on Intracranial Stenting Trials", 2. "Flow Diverters Studies and Follow-up", 3. "Flow Diverters in Debatable Cases, Basilar Artery, Bifurcation and Ruptured Aneurysms", Annual Scientific PAIRS Meeting 2016, Dubai, UAE, March 10-12 2016
211. LINNC Seminar 2016, USA, March 17-18 2016

REFRESHER COURSES:

1. Hilal SK, **Mawad ME**: CT and MRI of the third ventricle, diencephalon and posterior fossa. Categorical Refresher Course in Neuroradiology. Annual Meeting of the Radiological Society of North America, 1984, 1985.
2. **Mawad ME**, McCrary J, Kline L. MRI of the optic pathway and neuro-ophthalmic disorders. Categorical Refresher Course. Annual Meeting of the American Academy of Ophthalmology. Dallas 1987, Las Vegas 1988.
3. Radiological Society of North America, Chicago, IL, November 30-December 5, 2003.
4. Radiological Society of North America, Chicago, IL, November 28-December 3, 2004.
5. Radiological Society of North America, Chicago, IL, November 28-December 2, 2005.
6. Radiological Society of North America, Chicago, IL, November 26-27, 2012.

INTERNATIONAL MEETINGS AND SYMPOSIA ORGANIZED & HOSTED BY MICHEL MAWAD:

1. International Symposium on the Treatment of Cerebral Aneurysms, AVMs and Spinal Vascular Malformations. Organizer, Host and Speaker, Houston, TX, September 17-19, 1992.
2. International Symposium on Berry Aneurysms. Organizer, Host and Speaker, Houston, TX, March 28-30, 1996.
3. Endovascular Neuroradiology Workshop and Live Case Demonstrations. Organizer, Host and Speaker, Houston, TX, October 6-7, 1997.
4. LINC. Co-Organizer, Host and Speaker. Paris, France, November 14-15, 1997.
5. Endovascular Neuroradiology Workshop and Live Case Demonstrations. Organizer, Host and Speaker, Houston, TX. October 24-27, 1998.
6. LINC II. Co-Organizer, Host and Speaker. Paris, France, October 4-6, 1999.
7. Endovascular Neuroradiology Workshop and Live Case Demonstrations. Organizer, Host and Speaker, Houston, TX. October 14-17, 2000.
8. LINC II. Co-Organizer, Host and Speaker. Paris, France. October 8-10, 2001.
9. LINC 2002 Endovascular Neuroradiology Workshop and Live Case Demonstrations. Organizer, Host and Speaker, Houston, TX. October 13-16, 2002.
10. LINC 2004 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston, TX, October 9-14, 2004.

11. Houston Neurovascular Grand Rounds, Director and Speaker, November 17, 2005, December 17, 2005, January 7, 2006.
12. LINC 2006 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston, TX, October 15-19, 2006.
13. LINC 2008 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston, TX, October 11-16, 2008.
14. LINNC 2009 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, Co-organizer, Host and Speaker May 25-June 3, 2009.
15. LINNC 2010 Live Interventional Neuroradiology Workshop and Live Cases, Istanbul, Turkey, June 2-4, 2010.
16. LINC 2010 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston, TX, September 13-16, 2010.
17. LINC 2011 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston, TX, December 5-8, 2011.
18. LINNC 2011 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, June 2011. Co-organizer, Host and Speaker.
19. LINC 2012 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston TX, December 11-13, 2012.
20. LINNC 2012 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, Co-organizer, Host and Speaker June 2012.
21. LINC 2013 Live Interventional Neuroradiology Workshop and Live Cases, Organizer, Program Director, Host and Speaker, Houston TX, December 2013.
22. LINNC 2013 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, Co-organizer, Host and Speaker, June 2013.
23. LINNC 2014 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, Co-organizer, Host and Speaker June 2014.
24. LINNC USA 2015 Interventional Neuroradiology Workshop and Live Cases, New York, N.Y., Co-organizer, Host and Speaker, March 2015.
25. LINNC 2015 Live Interventional Neuroradiology Workshop and Live Cases, Paris, France, Co-organizer, Host and Speaker June 2015.
26. LINNC USA 2016 Interventional Neuroradiology Workshop and Live Cases, New York, N.Y., Co-organizer, Host and Speaker, March 2016.
27. WFITN Course on Neurovascular Anatomy, Beirut- Lebanon, Faculty Member, Host & Speaker, July 22-25, 2018.

28. LAU 2018 ISND Symposium, Beirut- Lebanon, Course Director & Director of the Organizing Committee, July 26- 27, 2018.

CLINICAL RESEARCH PROTOCOLS:

1. TREATMENT OF CENTRAL NERVOUS SYSTEM VASCULAR MALFORMATIONS AND ANEURYSMS WITH DETACHABLE PLATINUM COILS. 1991-PRESENT. H-1698. **PI: MICHEL E. MAWAD, M.D.**
2. INTRA-ARTERIAL THROMBOLIC THERAPY IN THE ACUTE STROKE. 1991-PRESENT. H-1697. **PI: MICHEL E. MAWAD, M.D.**
3. ENDOVASCULAR TREATMENT OF ARTERIOVENOUS MALFORMATIONS WITH THE USE OF HISTOACRYL. JULY 1989-Present. H-1696. **PI: MICHEL E. MAWAD, MD**
4. RANDOMIZED DOUBLE BLIND STUDY WITH TREATMENT OF ACUTE STROKE USING RECOMBINANT PRO-UROKINASE. 1994-PRESENT. **PI: MICHEL E. MAWAD, MD**
5. PHASE I STUDY OF ENDOVASCULAR STENTING FOR CAROTID STENOSIS. H-6590, **PI MICHEL E. MAWAD, M.D.**
6. GDC EMBOLIZATION REGISTRY. H-5538, **PI MICHEL E. MAWAD, M.D.**
7. ONYX CEREBRAL ANEURYSM FEASIBILITY TRIAL. H-8519, **PI: MICHEL E. MAWAD, MD**
8. A MULTI-CENTER PROSPECTIVE TRIAL TO EVALUATE THE ACT MICROCOIL SYSTEM FOR ENDOVASCULAR OCCLUSION OF INTRACRANIAL ANEURYSMS. H-7837. **PI: MICHEL E. MAWAD, M.D.**
9. USEFULNESS OF 3 DIMENTIONAL ROTATIONAL ANGIOGRAPHY (3DA) IN THE TREATMENT PLANNING OF INTRACRANIAL ANEURYSMS AND ARTERIOVENOUS MALFORMATIONS. H-7828. **PI: MICHEL E, MAWAD, M.D.**

10. MEDTRONIC-AVE NEUROVASCULAR TECHNOLOGIES (NVT) INX INTRAVASCULAR STENT ON THE STENT DELIVERY SYSTEM ANEURYSM FEASIBILITY STUDY, PHASE II. H-8335. 8/2001-12/2001. **PI: MICHEL E. MAWAD, M.D.**
11. U.S. MULTICENTER, RANDOMIZED CONTROLLED STUDY COMPARING THE PERFORMANCE OF ONYX AND TRUFILL NBCA IN THE PRESURGICAL EMBOLIZATION OF BRAIN ARTERIOVENOUS MALFORMATIONS (BAVMS). Protocol Number: H-9609. 2001-2004. **PI MICHEL E. MAWAD, M.D.**
12. SSYLVA: STENTING OF SYMPTOMATIC ATHEROSCLEROTIC LESIONS IN THE VERTEBRAL OR INTRACRANIAL ARTERIES Protocol Number: H-9048.2001-2002.
13. U.S. MULTICENTER, RANDOMIZED CONTROLLED STUDY COMPARING THE PERFORMANCE OF ONYX AND TRUFILL NBCA IN THE PRESURGICAL EMBOLIZATION OF BRAIN ARTERIOVENOUS MALFORMATION (BAVMS). Protocol Number: H-9609. 2001-2004. **PI MICHEL E. MAWAD, M.D.**
14. CREST- CAROTID REVASULARIZATION ENDARTERECTOMY VS. STENT TRIAL (AMENDMENT 3, AUGUST 21, 2003). Protocol Number: H-9682. 2001-2005.
15. U.S. ONYX CEREBRAL ANEURYSM TRIAL. Protocol Number: H-9712. 2001-2005.
16. ACCULINK FOR REVASULARIZATION OF CAROTIDS IN HIGH-RISK PATIENTS ("ARCHER") CLINICAL TRIAL .Protocol Number: H-10250. 2001-2003. **PI MICHEL E. MAWAD, M.D.**
17. TRISPAN COIL FOR THE TREATMENT OF WIDE NECK ANEURYSMS (TITAN) Protocol Number: H-11831. 2001-2003. **PI MICHEL E. MAWAD, M.D.**
18. HUMANITARIAN USE DEVICE: NEUROFORMTM MICRODELIVERY STENT. Protocol Number: H-11982. 2002-2005.
19. CUTTING EDGE: CUTTING BALLOON - HEMODIALYSIS ACCESS MANAGEMENT TRIAL. Protocol Number: H-12034. 2002-2004.
20. MEDTRONIC AVE NEUROVASCULAR TECHNOLOGIES(NVT) INXTM NEUROVASCULAR STENT ON A STENT DELIVERY SYSTEM ANEURYSM FEASIBILITY STUDY PHASE II Protocol Number: H-12146. 2002-2003. **PI MICHEL E. MAWAD, M.D.**
21. THE CEREBRAL ANEURYSM RERUPTURE AFTER TREATMENT STUDY (CARAT) Protocol Number: H-12473. 2002-2006. **PI MICHEL E. MAWAD, M.D.**
22. MOLECULAR MECHANISMS OF THORACIC AORTIC DISEASE. Protocol Number: H-12515 2007-2011.
23. HYDROCOIL FOR ENDOVASCULAR ANEURYSM OCCLUSION (HEAL) CLINICAL INVESTIGATION. Protocol Number: H-12555. 2003-2009.
24. HUMANITARIAN USE DEVICE: NEUROLINK STENT & DELIVERY CATHETER SYSTEM. Protocol Number: H-12693. 2003-2009.
25. SSYLVA: STENTING OF SYMPTOMATIC ATHEROSCLEROTIC LESIONS.

Protocol Number: H-13744.2003-2004. **PI MICHEL E. MAWAD, M.D.**

26. CLASSIFICATION OF INTRACRANIAL ANEURYSMS. Protocol Number: H-14751. 2004- 2008. **PI MICHEL E.MAWAD, M.D.**
27. PARTIAL ENDOVASCULAR TREATMENT OF RUPTURED CEREBRAL ANEURYSMS: LONG TERM RESULTS. Protocol Number: H-14827. 2004-2005.
28. INVESTIGATION OF HEMODYNAMIC CHANGES OBTAINED WITH PHASE CONTRAST MRI BEFORE AND AFTER CEREBROVASCULAR STENTING. Protocol Number: H-15108. 2004-2007. **PI MICHEL E. MAWAD, M.D.**
29. CHANGES IN DYSPNEA AND QUALITY OF LIFE AFTER KYPHOPLASTY FOR THE TREATMENT OF OSTEOPOROTIC VERTEBRAL FRACTURES. Protocol Number: H-15285. 2004-2005.
30. A FEASIBILITY STUDY OF THE CORDIS NEUROVASCULAR SELF-EXPANDING STENT SYSTEM TO FACILITATE ENDOVASCULAR COIL EMBOLIZATION OF WIDE NECK SACULAR INTRACRANIAL ARTERY ANEURYSMS REV 01, 01/19/04. Protocol Number: H-15344. 2004-2006. **PI MICHEL E. MAWAD, M.D.**
31. U.S. MULTICENTER, RANDOMIZED CONTROLLED STUDY COMPARING THE PERFORMANCE OF ONYX (EVOH) AND TRUFFILL (N-BCA) IN THE PRESURGICAL EMBOLIZATION OF BRAIN ARTERIOVENOUS MALFORMATIONS (BAVMS) AMMENDMENT TO PROTOCOL 9609 AUGUST. 20, 2003. Protocol Number: H-15484. 2004-2007. **PI MICHEL E. MAWAD, M.D.**
32. ENDOVASCULAR TREATMENT OF GIANT ANEURYSMS. Protocol Number: H-15543. 2004-2006.
33. THE RADIOGRAPHIC SCREENING OF THE CERVICAL SPINE IN HIGH SCHOOL FOOTBALL PLAYERS. Protocol Number: H-15829. 2004-2005.
34. HYDROCOIL FOR ENDOVASCULAR ANEURYSM OCCLUSION (HEAL) PHASE II PATIENT REGISTRY PROTOCOL. Protocol Number: H-16733. 2005-2007. **PI MICHEL E. MAWAD, M.D.**
35. CERECYTE COIL TRIAL (CCT). Protocol Number: H-16943. 2005-2011. **PI MICHEL E. MAWAD, M.D.**
36. A FEASIBILITY STUDY OF THE CORDIS NEUROVASCULAR SELF-EXPANDING STENT SYSTEM TO FACILITATE ENDOVASCULAR COIL EMBOLIZATION OF WIDE NECK SACULAR INTRACRANIAL ARTERY ANEURYSMS. Protocol Number: H-17268.2005-2006. **PI MICHEL E. MAWAD, M.D.**
37. SENTINEL LYMPH NODE MAPPING USING A FLUORESCENT CONTRAST AGENT AND NEAR-INFRARED (NIR) OPTICAL IMAGING. Protocol Number: H-17434. 2005-2008.
38. RETROSPECTIVE DATA STUDY ON ANEURYSM TREATMENT WITH MICRUS COILS Protocol Number: H-18962. 2006-2008. **PI MICHEL E. MAWAD, M.D.**
39. INTERNATIONAL PEDIATRIC STROKE STUDY (IPSS) - ESTABLISHMENT OF STANDARDS OF PRACTICE AND THE INITIATION OF MULTI-CENTER, MULTI-NATIONAL CLINICAL

- TRIALS FOR NEONATES AND CHILDREN WITH STROKE. Protocol Number: H-19273. 2006-2014.
40. OUTCOME REGISTRY ON USE OF THE WINGSPAN STENT SYSTEM FOR SYMPTOMATIC INTRACRANIAL ARTERIAL STENOSIS Protocol Number: H-19296. 2006-2008. **PI MICHEL E. MAWAD, M.D.**
 41. IMAGING LYMPH FLOW IN NORMAL CONTROLS AND LYMPHEDEMA PATIENTS Protocol Number: H-20438. 2007-2008.
 42. HUMANITARIAN DEVICE: THE WINGSPAN™ STENT SYSTEM WITH GATEWAY™ PTA BALLOON CATHETER H-050001. Protocol Number: H-20889. 2007- 2014. **PI MICHEL E. MAWAD, M.D.**
 43. HUMANITARIAN DEVICE: THE NEUROFORM™ MICRODELIVERY STENT SYSTEM AND THE NEUROFORM EZ™ STENT SYSTEM H-020002. Protocol Number: H-20893. 2007-2014. **PI MICHEL E. MAWAD, M.D.**
 44. MAPS: MATRIX AND PLATINUM SCIENCE A PROSPECTIVE, RANDOMIZED, MULTICENTER TRIAL INVESTIGATING MATRIX2™ AND GDC® FOR THE TREATMENT OF INTRACRANIAL SACCCULAR ANEURYSMS. Protocol Number: H-20957. 2007-2014. **PI MICHEL E. MAWAD, M.D.**
 45. TREATMENT OF SUBARACHNOID HEMORRHAGE WITH HUMAN ALBUMIN (ALISAH) Protocol Number: H-21012. 2007-2011.
 46. RETROSPECTIVE DATA STUDY ON PROXIMAL BASILAR ARTERY ANEURYSM TREATMENT WITH AND WITHOUT STENT PLACEMENT. Protocol Number: H-21048. 2007-2009. **PI MICHEL E. MAWAD, M.D.**
 47. CODMAN ENTERPRISE VASCULAR RECONSTRUCTION DEVICE AND DELIVERY SYSTEM, H060001, HUD#04-0147, NOVEMBER 2007, AMENDMENT 2. Protocol Number: H-21298. 2007-2014. **PI MICHEL E. MAWAD, M.D.**
 48. ONYX® LIQUID EMBOLIC SYSTEM ONYX® HD-500, H060003, HUD #02-0096 Protocol Number: H-21602. 2008-PRESENT. **PI MICHEL E. MAWAD, M.D.**
 49. PHASE 2, MULTICENTER, OPEN-LABEL, TWO-STAGE STUDY TO EVALUATE THE SAFETY AND EFFICACY OF INTRA-ARTERIAL CATHETER-DIRECTED ALFIMEPRASE FOR RESTORATION OF NEUROLOGIC FUNCTION AND RAPID OPENING OF ARTERIES IN STROKE (CARNEROS-1), PROTOCOL VERSION MARCH 14, 2007. Protocol Number: H-21607. 2007-2008. **PI MICHEL E. MAWAD, M.D.**
 50. A CONSUMER PREFERENCE STUDY TO ASSESS THE CLINICAL WORKFLOW OF THE AXIOM ARTIS VC 13 IN SUBJECTS REFERRED FOR GENERAL, NEUROLOGICAL, OR CARDIAC INTERVENTIONAL RADIOLOGICAL PROCEDURES, VERSION DECEMBER 21, 2007, AMENDMENT 1. Protocol Number: H-21766. 2007-2008. **PI MICHEL E. MAWAD, M.D.**
 51. SAPPHIRE WW TRIAL, STENTING AND ANGIOPLASTY WITH PROTECTION IN PATIENTS AT HIGH-RISK FOR ENDARTERECTOMY-CORDIS PROTOCOL NO. P06-3603, VERSION AMENDMENT 4, MARCH 11, 2010. Protocol Number: H-21823. 2008-2014. **PI MICHEL E. MAWAD, M.D.**

52. RETROSPECTIVE STUDY FOR EVALUATION OF A SOFTWARE FOR STENT PLANNING IN THE TREATMENT OF INTRACRANIAL ANEURYSMS. Protocol Number: H-22722. 2008-2014. **PI MICHEL E. MAWAD, M.D.**
53. CLINICAL EVALUATION OF SOFTWARE FOR STENT PLANNING OF INTRACRANIAL ANEURYSMS. Protocol Number: H-23200. 2008-2010. **PI MICHEL E. MAWAD, M.D.**
54. RETROSPECTIVE STUDY FOR INTIMAL HYPERPLASIA AFTER INTRACRANIAL STENTING. Protocol Number: H-23385. 2008-2010. **PI MICHEL E. MAWAD, M.D.**
55. RETROSPECTIVE STUDY FOR ENDOVASCULAR TREATMENT OF COMPLEX INTRACRANIAL ANEURYSMS USING ENTERPRISE STENT, NEUROFORM STENT AND/OR CERECYTE COILS. Protocol Number: H-23688. 2008-2014. **PI MICHEL E. MAWAD, M.D.**
56. LARGE DISPLAY CUSTOMER PREFERENCE STUDY. Protocol Number: H-23692. 2008-2011. **PI MICHEL E. MAWAD, M.D.**
57. VISSIT: VITESSE INTRACRANIAL STENT STUDY FOR ISCHEMIC THERAPY, PROTOCOL CA2007-01, IDE#: G080051, VERSION 6, NOVEMBER 18, 2010. Protocol Number: H-23749. 2009-2014. **PI MICHEL E. MAWAD, M.D.**
58. AUSCULTATION OF CEREBRAL ANEURYSMS, VERSION AUGUST 1, 2008. Protocol Number: H-23871. 2008-2014. **PI MICHEL E. MAWAD, M.D.**
59. SAMMPRIS: STENTING AND AGGRESSIVE MEDICAL MANAGEMENT FOR PREVENTING RECURRENT STROKE IN INTRACRANIAL STENOSIS (PROTOCOL VERSION AUGUST 3, 2011). Protocol Number: H-23943. 2009-2014.
60. RESEARCHING AXIUM™ COILING EXPERIENCE AND RECANALIZATION (RACER) STUDY, VERSION A, APRIL 18, 2008. Protocol Number: H-23944. 2008-2009. **PI MICHEL E. MAWAD, M.D.**
61. RETROSPECTIVE VENTRICULAR ENLARGEMENT STUDY-VES. Protocol Number: H-24988. 2009-2010. **PI MICHEL E. MAWAD, M.D.**
62. PREDICTORS OF CLINICAL OUTCOME AND RESOURCE UTILIZATION IN ACUTE STROKE PATIENTS. Protocol Number: H-25201. 2009-2014.
63. STERILE DISPOSABLE WIRELESS MOUSE - CUSTOMER PREFERENCE STUDY Protocol Number: H-25257. 2009-2011. **PI MICHEL E. MAWAD, M.D.**
64. THE PARKINSON'S PROGRESSION MARKERS INITIATIVE (PPMI). Protocol Number: H-26779. 2010-2014.
65. OUTCOME STUDY OF INTRAVENOUS THROMBOLYSIS IN PEDIATRIC STROKE. Protocol Number: H-26884. PENDING.
66. FEASIBILITY OF CEREBRAL BLOOD VOLUME (CBV) MEASUREMENTS FROM C-ARM COMPUTED TOMOGRAPHY IMAGES IN PATIENTS WITH CEREBRO-VASCULAR DISEASE – A RETROSPECTIVE STUDY. Protocol Number: H-27112.2010-2014. **PI MICHEL E. MAWAD, M.D.**

67. CLINICAL EVALUATION OF IMPROVED IMAGE PROCESSING SOFTWARE PACKAGES IN A NEWER WORKSTATION. Protocol Number: H-27362.2010-2011. **PI MICHEL E. MAWAD, M.D.**
68. CLINICAL EVALUATION OF SOFTWARE FOR STENT PLANNING OF INTRACRANIAL ANEURYSMS - PHASE II. Protocol Number: H-27376. 2010-2014. **PI MICHEL E. MAWAD, M.D.**
69. COMPASSIONATE USE OF THE PIPELINE™ EMBOLIZATION DEVICE (PED). Protocol Number: H-27436.2010-2011. **PI MICHEL E. MAWAD, M.D.**
70. THROMBECTOMY REVASCLARIZATION OF LARGE VESSEL OCCLUSIONS IN ACUTE ISCHEMIC STROKE (TREVO 2) REVISION B DATED MAY 12, 2011. Protocol Number: H-27480. 2011-2014. **PI MICHEL E. MAWAD, M.D.**
71. EVALUATION OF HEMODYNAMIC AND ANGIOGRAPHIC PERFORMANCE OF NEW FLOW DIVERTERS. Protocol Number: H-27994. 2010-2014.
72. EVALUATION OF COMPUTATIONAL FLUID DYNAMICS RESEARCH PLATFORM FOR BLOOD FLOW ANALYSIS IN INTRACRANIAL ANEURYSMS. Protocol Number: H-28651. 2011-2014. **PI MICHEL E. MAWAD, M.D.**
73. FLOW DIVERSION FOR INTRACRANIAL ANEURYSMS. Protocol Number: H-29259. 2011-2014. **PI MICHEL E. MAWAD, M.D.**
74. CLINICAL EVALUATION OF IMPROVED IMAGE PROCESSING SOFTWARE PACKAGES IN A NEWER WORKSTATION. Protocol Number: H-29269. 2011-2014. **PI MICHEL E. MAWAD, M.D.**
75. FEASIBILITY STUDY OF THE MICROVENTION, INC. NEUROVASCULAR SELFEXPANDING RETRIEVABLE STENT SYSTEM IN THE TREATMENT OF WIDE-NECKED INTRACRANIAL ARTERY ANEURYSMS, REV G. Protocol Number: H-29502. 2012-2014. **PI MICHEL E. MAWAD, M.D.**
76. AN INSTITUTIONAL FEASIBILITY STUDY OF INTRA-ARTERIAL CHEMOTHERAPY ADMINISTERED THROUGH THE OPHTHALMIC ARTERY OF CHILDREN WITH RETINOBLASTOMA. Protocol Number: H-29656. 2012-2014.
77. HIGH RESOLUTION C-ARM CT IMAGING FOR OPTIMAL VISUALIZATION OF IMPLANTED DEVICES DURING ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS. Protocol Number: H-29830. 2012-2014. **PI MICHEL E. MAWAD, M.D.**

ANIMAL RESEARCH PROTOCOLS:

1. DEVELOPMENT OF HUMAN FIBRIN ADHESIVE AS AN EMBOLIC AGENT. 1988
2. ENDOVASCULAR TREATMENT OF EXPERIMENTAL ANEURYSMS WITH DETACHABLE BALLONS AND FIBRIN GLUE. 1989-1991
3. ENDOVASCULAR TREATMENT OF EXPERIMENTAL ANEURYSMS WITH GUGLIELMI DETACHABLE COILS. 1992-1993
4. TREATMENT OF ANEURYSMS WITH ETHYLENE VINYL ALCOHOL (EMBOLYX), BCM ARPC AN-1815.
5. PRECLINICAL STUDIES OF OCCLUSION DEVICE/S SYSTEM FOR ANEURYSM THERAPY, BCM ARPC AN-1793
6. PRECLINICAL STUDIES OF MICRUS ACT MICROCOIL SYSTEM FOR ANEURYSM THERAPY, BCM ARPC AN-1788
7. PRECLINICAL STUDIES OF GUGLIELMI DETACHABLE PLATINUM COILS (GDC) FOR ANEURYSM THERAPY, BCM ARPC AN-1382
8. EVALUATION OF SAFETY AND PERFORMANCE OF SUPER EXPANSIVE EMBOLIC (SEE) IN THE TREATMENT OF ANEURYSM IN SWINE, BCM ARPC AN-1912.
9. EFFECT OF ONYX WITHIN THE CEREBELLOMEDULLARY CISTERN, BCM ARPC AN-1954
10. DEVELOPMENT OF RADIOACTIVE MATERIAL FOR ENDOVASCULAR TREATMENT OF AVM, BCM ARPC AN-1558
11. DEVELOPMENT OF RADIOACTIVE EMBOLIC MATERIAL FOR ENDOVASCULAR TREATMENT OF VASCULAR MALFORMATIONS, BCM ARPC AN- 1952
12. PRECLINICAL STUDIES OF OCCLUSION DEVICE/S FOR ANEURYSM THERAPY Protocol Number: AN-1793: 2000-2002: PI Michel E. Mawad, M.D.
13. TREATMENT OF ANEURYSMS WITH ETHYLENE VINYL ALCOHOL (EMBOLYX) Protocol Number: AN-1815: 2001-2003: PI Michel E. Mawad, M.D.
14. EVALUATION OF SAFETY AND PERFORMANCE OF SUPER EXPANSIVE EMBOLIC (SEE) IN THE TREATMENT OF ANEURYSMS IN SWINE Protocol Number: AN-1912. 2001-2002. PI Michel E. Mawad, M.D.
15. EFFECT OF ONYX WITHIN THE CEREBELLOMEDULLARY CISTERN Protocol Number: AN-1954. 2001-2002. PI Michel E. Mawad, M.D.
16. EVALUATION OF CATHETERS, IMPLANTABLE DEVICES AND MATERIALS FOR ENDOVASCULAR TREATMENT OF ANEURYSMS. Protocol Number: AN-2967. 2002-2005. PI Michel E. Mawad, M.D.
17. TRAINING OF PHYSICIANS IN THE USE OF DEVICES FOR INTRAVASCULAR TREATMENT OF CEREBRAL ANEURYSMS. Protocol Number: AN-3430. 2004-2005

18. PROOF OF CONCEPT EVALUATING THE USE OF TRANS-VASCULAR STIMULATION AS A MEANS FOR INCREASING BLOOD FLOW TO THE BRAIN DURING AN ISCHEMIC STROKE. Protocol Number: AN-3567. 2004-2005
19. FEASIBILITY STUDY EVALUATING PATENCY OF JAILED PERFORATORS USING SOLE THERAPY ANEURYSM POROUS STENTS IN A RABBIT LUMBAR ARTERY MODEL. Protocol Number: AN-3584. 2004-2005
20. EVALUATION OF STENT AND FLOW DIVERTER IN RABBITS FOR ENDOVASCULAR TREATMENT OF ANEURYSMS. Protocol Number: AN-5442. 2/2011-7/2011. PI Michel E. Mawad, M.D.
21. EVALUATION OF CATHETERS, IMPLANTABLE DEVICES IN CANINES FOR ENDOVASCULAR TREATMENT OF ANEURYSMS Protocol Number: AN-5532. 2011- 2014 PI Michel E. Mawad, M.D.
22. EVALUATION OF THE ANGIONET EMBOLECTOMY DEVICE FOR ENDOVASCULAR STROKE THERAPY Protocol Number: AN-5533. 2011-2014. PI Michel E. Mawad, M.D.
23. EVALUATION OF IMPLANTABLE DEVICES IN ACUTE SWINE MODEL FOR ENDOVASCULAR TREATMENT OF ANEURYSMS. Protocol Number: AN-5687. 2011-2014. PI Michel E. Mawad, M.D.
24. ENDOVASCULAR DEVICES IN SWINE AVM MODEL. Protocol Number: AN-5738. 2011-2014. PI Michel E. Mawad, M.D.
25. ENDOVASCULAR DEVICES IN CHRONIC SWINE AVM MODEL. Protocol Number: AN-5817. 2011-2014 PI Michel E. Mawad, M.D.

TEACHING SEMINARS - INVITED SPEAKER:

1. The Methodist Hospital In-service on Magnetic Resonance Imaging: Basic Principles, June 1989.
2. Department of Oncology\Oculoplastic Meeting Special Lecture: Neuroimaging of the Orbit - July 1989.
3. ENT Resident Core Curriculum Lecture: Salivary Gland Disease - August 1989.
4. Radiology Core Curriculum "Paul & Juhl" Class - August 1989.
5. American Association of Ophthalmology, Las Vegas, Review Course on Neuroradiologic Spectrum of Optic Nerve & Chiasmal Tumors - October 1989.
6. Radiology Resident Lecture Series on Cerebral Angiography - Cerebral Angiography - November 1989.
7. Neurology Resident Lecture Series on Basic Principles of MRI - February 1990.
8. Annual Refresher Course on Magnetic Resonance Imaging - The Methodist Hospital/Baylor College of Medicine - March 5-9, 1990.
9. Radiology Resident Noon Lecture - Baylor College of Medicine on Normal Cerebral Angiography - March 1990.
10. Texas Medical Society Annual Meeting - Guest Lecturer on Interventional Neuroradiology - May 1990.
11. Neurology Resident - Baylor College of Medicine - Friday Morning Conference on MRI of Cerebral Hemorrhage - June 1990.
12. ENT Residents Core Curriculum Lecture on - Salivary Gland Disease - August 1990.
13. Radiology Residents Core Curriculum "Paul & Juhl" Review Course - August 1990.
14. MRI Refresher Course - The Methodist Hospital/Baylor College of Medicine - March 1991.
15. The Methodist Hospital In-service to Radiology Technicians on Interventional Neuroradiology - March 1991.
16. New Orleans Neurological Society Guest Lecture on Interventional Neuroradiology -April 1991.
17. Radiology Resident Core Curriculum Lecture "Paul & Juhl" Review Course – August 1991.
18. ENT Residents Core Curriculum Lecture on Salivary Gland Disease - August 1991.
19. Department of ENT - Baylor College of Medicine - Lecture on Diseases of the Temporal Bones - August 1991 - Annual Meeting of the European Society of Neurology - Scientific Presentation on Long Term Histological Changes in Embolized Experimental Aneurysm - Zurich, Switzerland - October 1991.

20. Victoria Radiology Association - Victoria, Texas, Guest Lecture on Magnetic Resonance Angiography - August 1991.
21. ENT Department Lecture - Baylor College of Medicine - Salivary Gland - September 1991.
22. The Methodist Hospital Nurses Grand Round on Interventional Neuroradiology - September 1991.
23. Department of Neurology - Baylor College of Medicine Resident Lecture on the principles of MRI - October 1991
24. Texas Radiology - Interventional Neuroradiology - April 1992.
25. Wilford Hall Medical Center - San Antonio, Texas - Invited Guest Lecture on Interventional Neuroradiology - April 1992.
26. Interventional Neuroradiology - Merida, Mexico - June 1992.
27. Radiology Resident Core Curriculum "Paul & Juhl" Review Course - August 1992.
28. The Methodist Hospital Nurse Anesthesia In-service on Interventional Neuroradiology - September 1992.
29. Nurses National Meeting on Balloons and Glue - Guest Lecturer - September 1992.
30. Texas Society of Neurosurgeons - on Interventional Neuroradiology – 1992.
31. ENT Resident Core Curriculum Lecture on Salivary Gland Disease - October 1992.
32. Nurses Meeting - Guest Speaker - November 1992.
33. St. Luke's Neuro Nurses - Guest Lecture on Embolization of Aneurysms
34. Radiology Resident Core Curriculum "Paul & Juhl" Review Lecture - August 1993.
35. Neuroradiology Fellows Review Session - September 1993.
36. Grand Rounds - Neurology Residents - September 1993.
37. Chairman's Breakfast - The Methodist Hospital - Guest Speaker - Presentation on the Diagnosis and Treatment of Aneurysms and Strokes to Board Members.
38. International Medical Summit II, Guest Speaker - Interventional Neuroradiology - October 27-30, 1993.
39. Beaumont Nurses Association - Beaumont, Texas - Guest Speaker - Interventional Neuroradiology - November 1993.
40. Grand Rounds - Head and Neck Trauma - TIRR - November 1993.

41. Radiology Residents Core Curriculum Board Review - February 1994.
42. Medical Documentary on Interventional Neuroradiology - March 3
43. Wilford Hall Medical Center - Guest Speaker - Interventional Neuroradiology - April 15
44. Radiology Residents Core Curriculum Board Review - May 1994.
45. University of Texas Medical Branch - Galveston, Texas on Interventional Neuroradiology - July 1994
46. University of Texas Medical Branch - Houston, Texas, Guest Speaker on Electrothrombosis Obliteration of Aneurysms - September 1994.
47. Kuamoto, Japan - Moderator of session on Interventional Neuroradiology - September 1994.
48. Damascus, Syria - Guest Speaker on MRI and Interventional Neuroradiology - Annual Meeting of Arab Association of Surgeons - October 1994.
49. Grand Rounds - Texas Children's Hospital - Department of Plastic Surgery - Current Modalities of Embolization of Head and Neck Vascular Tumors - November 1994.
50. Temple University, Philadelphia, PA - Visiting Professor - Guest Speaker - Interventional Neuroradiology - November 1994.
51. Department of Neurology - Grand Rounds - February 1995.
52. Department of Neurosurgery - Baylor College of Medicine, lecture on Classification of Arteriovenous Malformations - March 1995.
53. Wilford Hall Medical Center - San Antonio, Texas - Guest Speaker on Interventional Neuroradiology - March 1995.
54. Radiology Residents Board Review - April 1995.
55. Department of Pathology - Baylor College of Medicine - Guest Speaker on Aneurysms - April 1995.
56. Lecture Presentation to St. Luke's ICU Nurses - Aneurysms and Treatment. September 6, 1995.
57. Neurology Grand Rounds. Nonsurgical Treatment of Berry Aneurysms. November 6, 1995.
58. Southeast Texas Chapter of AANN - ICU - Brain Attack. The Role of Interventional Neuroradiology in the Management of Brain Attack. Houston, TX. November 14, 1996.
59. Lecture to Residents and Staff at Barnes Hospital. Interventional Treatment of Aneurysms and AVMs. St. Louis, MO. December 8, 1995.
60. Lecture to Residents and Staff at University of Arkansas Hospital. Endovascular Treatment of Aneurysms with GDC. Little Rock, AR. January 16, 1996.

61. Interview by Channel 8 (PBS) for Health Check. Health Update on GDC Embolization of Aneurysms. Houston, TX. February 19, 1996.
62. Interview by Channel 2 (NBC). FDA Approval on GDC. Houston, TX. March 26, 1996.
63. Presentations to Staff at Wilford Hall Medical Center, Lackland Airforce Base. Endovascular Treatment of Intracranial Aneurysms and Thrombolytic Therapy in the Acute Stroke. San Antonio, TX. March 5, 1996.
64. Neurology Grand Rounds. Angioplasty and Stenting for Symptomatic Carotid and Vertebral Artery Stenosis. Houston, TX. July 8, 1996.
65. Plastic Surgery Grand Rounds. Current Trends in Embolization Procedures. Houston, TX. September 6, 1996.
66. Lecture to Anesthesiology Staff at Ben Taub General Hospital. Anesthesia Care During Therapeutic Neuroradiology Procedures. Houston, TX. October 23, 1996.
67. Neurology Grand Rounds. Vascular Disease of the Spinal Cord. Houston, TX. November 8, 1996.
68. Neurosurgery Grand Rounds. Embolization Coiling of Aneurysms with GDC. Houston, TX. February 19, 1997.
69. Otolaryngology Grand Rounds. Embolization of Vascular Lesions of the Head and Neck. Houston, TX. May 27, 1997.
70. Kansas City Radiology Group. Recent Advances in Interventional Neuroradiology. Kansas City, KS. September 30, 1997.
71. Grand Rounds. Wilford Hall Medical Center. Lackland Airforce Base. San Antonio, TX. November 7, 1997.
72. Neurosurgery Grand Rounds. Houston, TX. February 18, 1998.
73. Radiation Oncology Grand Rounds. Vascular Malformation of the Brain. Houston, TX. June 4, 1998.
74. Neurosurgery Grand Rounds. Houston, TX. May 5, 1999.
75. Radiation Oncology Grand Rounds. Advances in Interventional Neuroradiology: An Overview. Houston, TX. February 17, 2000.
76. Department of Surgery Grand Rounds. Endovascular Management of Cerebral Vascular Atherosclerotic Disease. Houston, TX. October 4, 2000.
77. Neuroradiology/Neurology Noon Conference. Revascularization Procedures for Atherosclerotic Carotid Disease. Houston, TX. October 27, 2000.

78. Neuroradiology/Neurology Noon Conference. Vascular Disease of the Spinal Cord. Houston, TX. December 15, 2000.
79. Cardiology Grand Rounds. Angioplasty and Stenting of Cerebrovascular Disease. Houston, TX. January 24, 2002.
80. New Frontiers in Medicine. Presentation to Grupo Fernandes Vieira, Brazilian physicians Interventional Radiology in Neurosurgery. Houston, Texas, February 13, 2002.
81. Endovascular Management of Cerebral Vascular Disease, Arab American Medical Association, Houston, Texas, May 10, 2003.
82. Oriental Conference of Interventional Neuroradiology, Shanghai, China, October 30-November 2, 2008.
83. JSNET Meeting, Nagoya, Japan, November 12-14, 2008.
84. Advanced Aneurysm Treatment Symposium, Oxford, England, December 15-17, 2008.
85. Concepts in Contemporary Medicine Symposium (CCC 2009), Houston, Texas, April 15-17, 2009.
86. Siemens Advisory Board Meeting, Frankfurt, Germany, July 22-24, 2009.
87. World Federation of Interventional and Therapeutic Neuroradiology (WFITN), Montreal, Canada, June 29-July 1, 2009.
88. Global Complications Meeting, Jackson Hole, WY, August 30-September 2, 2009.
89. Peruvian Neurology Society Meeting, Lima, Peru, November 4-7, 2009.
90. Qatar Hamad Medical Corporation Meeting, Doha, Qatar, December 12-16, 2009.
91. American Association of Neurological Surgeons and Congress of Neurologic Surgeons (AANS/CNS), Cerebrovascular Section Annual Meeting 2010, San Antonio, Texas, February 22-23, 2010.
92. NHS-Lothian Brainstorm 2010, Edinburgh, Scotland, June 21-23, 2010.
93. Siemens Advisory Meeting, Nuremberg, Germany, June 23-25, 2010.
94. Cerebrovascular Complications Conference, Teton Village, Jackson Hole, WY, July 11-14, 2010.
95. Symposium Neuroradiologicum 2010, Bologna, Italy, October 4-9, 2010.
96. 11th Oriental Conference of Interventional Neuroradiology, Shanghai, China, October 29-31, 2010.
97. World Federation of Interventional and Therapeutic Neuroradiology, Val d'Isere, France, January 16-21, 2011.

98. 11th Middle East Medical Imaging and Diagnostic Conference, Arab Health Congress. Stroke Imaging and Intervention. Dubai, United Arab Emirates, January 24-26, 2011.
99. iCON2011-International Congress for Endovascular Specialists. Latest Advances in the Management of Acute Stroke and Intracranial Vascular Pathologies. Scottsdale, AZ, February 13-17, 2011.
100. GSANIT-South-American Work Group in Therapeutic Interventional Neuroradiology, Arequipa, Peru, March 25-31, 2011.
101. Siemens Advisory Meeting, Frankfurt, Germany, April 19-24, 2011.
102. LINNC & ACINR 3rd Joint meeting. Paris, France, May 23-25, 2011.
103. NHS-Lothian Brainstrom, Edinburgh, Scotland, June 20-22, 2011.
104. BSNET 2011, Kobe, Japan, July 21-24, 2011.
105. 8th Monsoon Meeting Neuro Interventional Complications, INIF. Acute Stroke Therapy & Complex Aneurysms Treatment without Flow Diverters. Goa, India, August 11-14, 2011.
106. 13th Annual Global Endovascular Complications Meeting, Jackson Hole, WY, August 21-24, 2011.
107. 11th Oriental Conference of Interventional Neuroradiology, Shanghai, China, September 8-11, 2011.
108. Neuroradiology Congress, SMNR. Dural Fistulas in Pediatric Population & Management of AVMs in Neonates. Merida, Yucatan, Mexico, September 14-16, 2011.
109. Clinica Americana 90th Anniversary Congress, Lima, Peru, November 17-20, 2011.
110. Endovascular Summit, An Exploration into the Latest Advances in Cardiovascular and Endovascular interventions. San Juan, Puerto Rico, December 9-10, 2011.
111. World Federation of Interventional and Therapeutic Neuroradiology, Val d'Isere, France, January 14-21, 2012.
112. Interventional Neuroradiology Master Course. Advances in Stenting of Intracranial & Cervical Vessels Stenoses, Madrid, Spain, January 13-14, 2012.
113. WFNS 10th International Conference On Cerebrovascular Surgery, Beijing, China, April 20-22, 2012.
114. Siemen's Advisory Board Meeting, Nuremberg, Germany, May 2-5, 2012.
115. ACINR 2012, Anatolian Course of Interventional Neuroradiology, Istanbul, Turkey, May 30 – June 1, 2012.
116. LINNC, Paris, France, June 12-14, 2012.

117. 10th AAFITN 2012, Nagoya, Japan, June 14-16, 2012.
118. ALMA, American Lebanese Medical Association, Healthcare Beyond Borders Conference, Beirut, Lebanon, June 29-30, 2012.
119. Adriatic Vascular Summit, Siena Italy, September 5-8, 2012.
120. 13th Annual International Neuroradiology Symposium, Toronto, Canada, September 28-29, 2012
121. International Intracranial Stents Meeting, Madison, WI, October 8-12, 2012.
122. Lebanese Society, Mexico City, Mexico, October 22, 2012.
123. 28th Annual Japanese Society for Neuroendovascular Therapy, JSNET, Sendai, Japan, November 12-18, 2012.
124. World Federation of Interventional and Therapeutic Neuroradiology, ABC-WIN, Val d'Isere, France, 13 – 18 January 2013.
125. iCON2013-International Congress for Endovascular Specialists, Scottsdale, AZ, February 24 – 28, 2013.
126. GSANIT XXII Patagonia, Argentina, March 10-14, 2013.
127. Current Trends in Aortic and Cardiothoracic Surgery and interventions, Houston Texas, April 25-27, 2013.
128. LINNC Paris, France. June 10-15, 2013.
129. FAAC 2013, Failure Analysis Advisory Council, Jackson Hole WY, August 18-21, 2013.
130. 5th ESMINT Congress, European Society of Minimally Invasive Neurological Therapy, Nice France, September 5-7, 2013.
131. Guest Speaker, Association of Neuroradiology, Milano Italy, September 2017.
132. Guest Speaker, WFITN, Budapest Hungary, October 2017.
133. Guest Speaker, Pros and Cons in Vascular Surgery, Beirut Lebanon, November 17, 2017.
134. Guest Speaker, ABC WIN Seminar, Val d'Isere France, January 14-19, 2018.
135. Guest Speaker, PAIRS Meeting, Dubai UAE, February 21- 24, 2018.
136. Guest Speaker, 18th Symposium des Gynecologues Francophones, Beirut Lebanon, April 19-22, 2018.
137. Guest Speaker, Lebanese Society for Vascular Surgery, Beirut Lebanon, April 2018.

138. Guest Speaker, Le Printemps de La FM (USJ), Beirut Lebanon, May 2018.
139. Guest Speaker, Neuro 5 Consultancy Meeting, Germany, May 2018.
140. Guest Speaker, LINNC, Paris France, June 2018.
141. Guest Speaker, Lebanese Society of Neurosurgery, Beirut Lebanon, June 2018.
142. Neurovascular Week (Chair, Speaker, Organizing Committee), July 2018.
143. AIS Pathway Optimization Project (Appointed as Chairman for the Middle East, Europe and Africa), Paris, France, September 2018.
144. Guest Speaker, LSN International Congress, Beirut, October 2018.
145. Speaker, Advances in the Management of Obesity Disease conference, Beirut, LAUMC-RH, October 27, 2018.
146. Invited Speaker on "Management of Stroke", monthly Emergency Department meeting at Notre Dame Maritime Hospital- November 13, 2018.
147. Guest Speaker, First International Egyptian Stroke Conference, Cairo-Egypt, December 6 & 7, 2018.
148. Guest Speaker, 2nd AIS Pathway Optimization Project Advisory Board meeting, Roma-Italy, December 10, 2018.
149. Guest Speaker, WFITN Seminar during ABC-WIN Seminar (Anatomy-Biology-Clinical correlations- Working group in Interventional Neuroradiology), Val D'Isère, France, January 2019.
150. Speaker, Highlights on Non-Operating Room Anesthesia conference, LAU Simulation Center- Byblos, January 19, 2019.
151. Moderator & Speaker, Live Webinar on Acute Ischemic Stroke, Protocol, Patient Pathway & Treatment, February 2019.
152. Guest Speaker, Lebanese Society of Radiology, Beirut Lebanon, February 2019.
153. Guest Speaker, Lebanese Society of Critical care, Beirut Lebanon, March 2019.

NEURORADIOLOGY FELLOWSHIP PROGRAM DIRECTOR:

Baylor College of Medicine, 1987-2012

Fellows Graduated from the Program:

1. David E. King, M.D. 1987-1989

2. David Jenkins, M.D.	1987-1989
3. Raphael Aponte-Lopez, M.D.	1988-1990
4. Sam H. Baird, M.D.	1989-1990
5. David A. Carrier, M.D.	1990-1992
6. Pedro Diaz-Marchan, M.D.	1990-1992
7. Reed A. Shankwiler, M.D.	1990-1992
8. Mark J. Pflieger, M.D.	1991-1992
9. John M. Gundzik, M.D.	1991-1992
10. Joseph A. Andrezik, M.D.	1991-1993
11. I. Raymond Kirk, M.D.	1993-1995
12. David J. Feldman, M.D.	1993-1995
13. Sanjay K. Singh, M.D.	1993-1995
14. T. Linda Chi, M.D.	1994 -1996
15. Richard A. Klucznik, M.D.	1994-1996
16. Meng Vang, M.D.	1995-1996
17. Ling-Ling Chan, M.D.	1998
18. Lisa Hinckley, M.D.	1997-1999
19. Stephan Haas, M.D.	1997-1999
20. Jonathan Levine, M.D.	1998-2000
21. Andrew Pohl, M.D.	1998-2000
22. Elisa Ciceri, M.D.	1998-2000
23. Russell Putnam, M.D.	2000-2001
24. John J. Nisbet, M.D.	2000-2002
25. Anil Arat, M.D.	2001-2003
26. M. Cristi Payan, M.D.	2002-2003
27. Hesham Morsi, M.D.	2003-2005
28. Fanny Moran, M.D.	2003-2005
29. Gregory J. Boys, M.D.	2004-2005
30. Daryle Darden, M.D.	2004-2005
31. Robert B. Good, M.D.	2004-2006
32. Walid K. Adham, M.D.	2005-2006
33. Rajeev K. Shah, M.D.	2005-2006
34. Beatriz E. Adrada, M.D.	2005-2006
35. Cristina Cavazos, M.D.	2006-2007
36. Pedro E. Diaz-Ortiz, M.D.	2006-2007
37. Sireesha Yedururi, M.D.	2006-2007
38. Don Evans, M.D.	2007-2008
39. Rodolfo Garcia, M.D.	2007-2008
40. Kasia Kedzierska, M.D.	2007-2008
41. Samuel Serna, M.D.	2007-2008
42. Srinesh Alle, M.D.	2008-2009
43. Ryan Davis, M.D.	2008-2009
44. Suchitra Godara, M.D.	2008-2009
45. Kristoffer Pun, M.D.	2008-2009
46. Timothy Seipel, M.D.	2008-2009
47. Jackson Hamilton, M.D.	2009-2010
48. Michael Murphy, M.D.	2009-2010
49. Jerry Polasek, M.D.	2009-2010

50. Mario Polo, M.D.	2009-2010
51. Bryan Prange, M.D.	2009-2010
52. Nassim Akle, M.D.	2010-2011
53. Bethune Escalante, M.D.	2010-2011
54. Kenneth Le, M.D.	2010-2011
55. Ryan Skinner, M.D.	2010-2011
56. Giovanni Millare, M.D.	2010-2012
57. Cassy Cook, M.D.	2011-2012
58. Veena Sathyakumar, M.D.	2011-2012

CONTINUING MEDICAL EDUCATION:

Endovascular Institute Summit, sponsored by Cine-Med, Jackson Hole, Wyoming, August 4-5, 2005.
11 ½ category 1 credits

Advanced Endovascular Simulation and Observation Program (AWSOP), St. Luke's Episcopal Hospital, Houston, Texas, April 30, 2004.
9 category 1 credits

Global Endovascular Complications, American Association of Neurological Surgeons, Teton Village, Wyoming, July 21-23, 2005.
13 ½ category 1 credits

Global Endovascular Complications, American Association of Neurological Surgeons, Jackson Hole, Wyoming, August 27-29, 2007.
11.5 CME credits.

2nd Live Interventional Neuroradiology & Neurosurgery Course, "LINNC", Paris, France, June 17-19, 2008.
18 CME credits

Global Endovascular Complications, American Association of Neurological Surgeons, Jackson Hole, Wyoming, August 25-27, 2008.
14.25 CME credits

LINC Course – Houston 2008. October 11-16, 2008.
31.25 CME credits

Texas Neuroradiological Society. February 27, 2009.
1 CME credit

3rd Live Interventional Neuroradiology & Neurosurgery Course (LINNC), Paris, France. May 25-27, 2009.
18 CME credits

10th Congress WFITN (World Federation of Interventional and Therapeutic Neuroradiology). June 23-July 3, 2009.
36.5 CME credits

Global Endovascular Complications, Jackson Hole, WY. August 30-September 2, 2009.
12 CME credits

Treatment of Symptomatic Intracranial Atherosclerotic Disease. February 16, 2010.
1 CME credit

LINC Course – Houston 2010. September 13-16, 2010.
25 CME credits

3rd Live Interventional Neuroradiology & Neurosurgery Course (LINNC), Paris, France. May 23-25, 2011.
18 CME credits

Brainstorm 2011, Edinburgh, Scotland. June 20-22, 2011.
15 Category 1CPD credit

13th Annual Global Endovascular Complications Conference. Teton Village, Jackson Hole, WY. August 21-24, 2011.
14.25 CME credits

LINC Course – Houston 2011. December 5-8, 2011.

ISES Endovascular Summit, San Juan, Puerto Rico. December 9-10, 2011
16.25 CME credits

LINNC – Paris 2012, June 12-14, 2012
18 CME credits

XVI Congreso Nacional De Neuroradiologia, Mexico. September 12-15, 2012
Certification of Participation

LINC – Houston 2012. December 11-13, 2012
19.50 CME credits

Current Trends in Aortic and Cardiothoracic Surgery and Interventions, Houston Texas, April 25-27, 2013
14.75 CME credits

LINNC Paris, France. June 10-15, 2013
17 CME credits

FACC Meeting, Jackson Hole WI, August 18-20, 2013

5th ESMINT Congress, Nice France, September 5-7, 2013
17 CME credits

12th WFITN Congress, Buenos Aires Argentina, November 9-13, 2013