

## **Adam S. Arthur MD MPH**

### **CONTACT INFORMATION**

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### **EDUCATION**

University of Virginia (8/1988-5/1992)  
Bachelor of Arts in Biology, minor in American Government  
University of Virginia School of Medicine (8/1994-5/1998)  
Doctor of Medicine  
University of Utah Department of Surgery, Salt Lake City, Utah (7/1998-6/1999)  
Internship in General Surgery  
University of Utah Department of Public Health (8/2001-6/2002)  
Masters in Public Health, Magna Cum Laude  
University of Utah Department of Neurosurgery, Salt Lake City, Utah (7/1999-1/2003)  
Residency in Neurosurgery  
University of Utah Department of Neurosurgery, Salt Lake City, Utah (7/2003-6/2004)  
Chief Residency in Neurosurgery  
University of Tennessee Department of Neurosurgery and Semmes-Murphey Neurologic and Spine Clinic, Memphis, TN (7/2004-6/2006)  
Fellowships in Interventional Neuroradiology and Cerebrovascular Neurosurgery

### **HONORS/AWARDS**

Honored Guest, Nordic Neurointerventional Meeting, Rungstedgaard, Denmark,  
December 1-2, 2016  
Honored Guest, 2014 Brain Interventional Group Meeting, Cotswolds, U.K.  
First Place, Resident's Basic Science Award, Southern Neurosurgical Society Meeting,  
1998  
Phi Kappa Phi Honor Society (MPH), 2002  
International Society for Cerebral Blood Flow and Metabolism Summer Session, 1994  
-Cambridge University, U.K. (One of 40 researchers selected internationally.)  
Student Member, University of Virginia Board of Visitors, 1991-1992  
Virginia Scholarship, 1988-1992, four-year scholarship awarded for academic merit

### **BOARD CERTIFICATION**

American Board of Neurological Surgery primary examination, 2002  
Fellow, American Association of Neurological Surgeons, 2009  
Fellow, American College of Surgery, 2010  
Fellow, American Heart Association, 2015

**LICENSURE**

Medical License, State of Utah, 1998

Medical License, State of Tennessee (license# MD0000038705), 2004

**SOCIETY MEMBERSHIPS**

Fellow, American College of Surgeons

Fellow, American Association of Neurological Surgeons (AANS)

Fellow, American Heart Association (AHA)

Congress of Neurological Surgeons (CNS)

Endovascular Neurosurgery Research Group (ENRG)

Joint AANS/CNS Cerebrovascular Section

Society of Neurointerventional Surgery (SNIS)

Southern Neurosurgical Society (SNS)

Tennessee Neurosurgical Society (TNS)

**UNIVERSITY APPOINTMENTS**

Professor, University of Tennessee Department of Neurosurgery, Memphis, TN,  
2015-Present

Associate Professor, University of Tennessee Department of Neurosurgery, Memphis, TN,  
2010-2015

Assistant Professor, University of Tennessee Department of Neurosurgery, Memphis, TN,  
2007-2010

**HOSPITAL/CLINICAL APPOINTMENTS**

Director, Cerebrovascular and Endovascular Neurosurgery, Semmes-Murphey Clinic and  
University of Tennessee Department of Neurosurgery (2009-present)

Chief, Interventional Neuroradiology, Baptist Memorial Hospital, Memphis, TN (2010 -  
present)

Director, Neurointensive Care Unit, Baptist Memorial Hospital, Memphis, TN (2008 -  
present)

Director, Vascular and Endovascular Neurosurgery, Methodist University Hospital,  
Memphis, TN (2010-present)

Chairman, Department of Neurosurgery, Methodist University Hospital, Memphis, TN  
(2018-present)

**OTHER ACADEMIC APPOINTMENTS**

Chair, University of Tennessee Department of Neurosurgery Clinical Competency Committee,  
2016-present

Fellowship Director, University of Tennessee/Semmes-Murphey Clinic Fellowship in  
Open and Endovascular Neurosurgery, 2011-present

Adjunct Professor, University of Sarajevo Department of Neurosurgery, Sarajevo, Bosnia,  
2007-Present

**TEACHING EXPERIENCE**

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, Paris, France, June 3-5, 2019

Faculty, Brainstorm Neurointerventional Course, Edinburgh, Scotland, June 10-12, 2019  
Served as faculty for a three day didactic course for approximately twenty attending neurosurgeons and neuroradiologists from Europe, Asia and South America.

Course Director, AANS Cerebrovascular and Endovascular Techniques Course for Residents, Memphis, TN, October 12-13, 2018  
Created and co-directed comprehensive open surgical and endovascular course for neurosurgical residents from 25 different residency programs consisting of both hands-on and didactic teaching over three days.

Course Director, AANS/SVIN/SNIS Endovascular Course for Fellows, Memphis, TN, September 21-23, 2018  
Created and co-directed comprehensive endovascular course for 38 fellows in interventional neuroradiology, endovascular neurosurgery and interventional neurology consisting of both hands-on and didactic teaching over two days

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, Paris, France, June 11-13, 2018

Faculty, Brainstorm Neurointerventional Course, Edinburgh, Scotland, June 4-6, 2018  
See above.

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, New York, New York, March 16-17, 2018

Course Director, AANS Cerebrovascular and Endovascular Techniques Course for Residents, Memphis, TN, October 19-21, 2017  
See above.

Course Director, AANS/SVIN/SNIS Endovascular Course for Fellows, Memphis, TN, September 15-17, 2017  
See above.

Faculty, Brainstorm Neurointerventional Course, Edinburgh, Scotland, June 5-7, 2017  
See above.

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, New York, New York, March 24-25, 2017

Faculty, International Symposium on Neurovascular and Neurosurgical Disorders, Abu Dhabi, UAE, February 12-15, 2017

Faculty, AIM Symposium, New York, NY, December 15-18, 2016

Course Director, AANS/SVIN/SNIS Endovascular Course for Fellows, Memphis, TN, October 7-9, 2016  
See above.

Course Director, AANS Cerebrovascular Course for Residents, Memphis, TN, October 20-22, 2016  
See above.

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, Paris, France, June 23-25, 2016

Faculty, Live Interventional Neuroradiology and Neurosurgery Course, New York, New York, March 18-19, 2016

Course Director, AANS Cerebrovascular Course for Residents, Memphis, TN, November 5-7, 2015  
See above.

Course Director, AANS/SVIN/SNIS Endovascular Course for Fellows, Memphis, TN, October 16-17, 2015  
See above.

Course Director, AANS Cerebrovascular Course for Residents, Memphis, TN, November 13-16, 2014  
See above.

Course Director, 2014 AANS/SNIS/SVIN Course for Fellows, Memphis, TN, September 12-13, 2014  
See above.

Guest Faculty, Advanced Microsurgical Course, Arkansas Neurological Institute, Little Rock, AR, March 7-9, 2014  
Provided both didactic teaching and hands-on instruction using cadaver models for 20 neurosurgeons over 2 days on the subject of open surgery for cerebral aneurysms.

Course Director, 2013 AANS Cerebrovascular Course for Residents, Memphis, TN  
See above.

Course Director, 2013 AANS/SNIS/SVIN Endovascular Course for Fellows, Memphis, TN  
See above.

Faculty, AANS Endovascular Course for Residents, 2013 AANS Meeting, New Orleans, LA  
Served as faculty for a one-day course for residents and provided both didactic and hands-on instruction.

Faculty, Brainstorm Interactive Interventional Neuroradiology, 2013, Edinburgh, Scotland  
See above.

Course Director, AANS Vascular Neurosurgery Course for Residents, 2013, Memphis, TN  
See above.

Course Director, AANS/SNIS/SVIN Endovascular Course for Fellows, 2013, Memphis, TN  
See above.

Course Director, CV Section Endovascular Course for Residents, 2011, New Orleans, LA  
See above.

Course Director, AANS/SNIS/SVIN Endovascular Course for Fellows, 2012, Memphis, TN  
See above.

Course Director, AANS Open Vascular Neurosurgery Course for Residents, 2012,  
Memphis, TN  
See above.

Course Director, AANS Endovascular Course for Residents, 2010-2012, Memphis, TN  
See above.

Faculty, Brainstorm Interactive Interventional Neuroradiology, 2012, Edinburgh, Scotland  
See above.

Plenary Session Faculty, Goodman Oral Board Preparation Course, 2010-2013  
Served as faculty each year for four years for a three day course for about 100  
neurosurgeons aimed preparing to take the American Board of Neurological  
Surgery oral examination.

Faculty, Cerebrovascular Complications Conference, Endovascular Video Course,  
Jackson Hole, Wyoming, 2010  
Prepared and delivered video tutorials detailing operative techniques for a group of  
about thirty neurosurgery attending physicians.

Faculty, AANS Endovascular Neurosurgery Resident Course 2007-2013, Memphis, TN  
Served as faculty for a two day course for United States residents preparing and  
delivering both didactic lectures and hands-on laboratory exercises.

**VISITING PROFESSORSHIPS**

Visiting Professor, Wake Forest University Department of Neurosurgery, March 13, 2009

Visiting Professor, Stonybrook University Department of Neurosurgery, November 7, 2011

Visiting Professor, Louisiana State University Department of Neurosurgery, April 5, 2013

Visiting Professor, University of Virginia Department of Neurosurgery, September 20, 2014

Visiting Professor, Capital Health/Drexel University Department of Neurosciences, November 21, 2014

Visiting Professor, Cleveland Clinic Department of Neurosurgery and Cerebrovascular Center, August 17, 2017

Visiting Professor, Ohio State University Wexner Medical Center Department of Neurosurgery, March 13-15, 2018

Visiting Professor, Stanford University Department of Neurosurgery, October 17-18, 2019

Visiting Professor, New York University Department of Neurosurgery, October 24-25, 2019

**INVITED LECTURES**

1. Arthur AS: The University of Tennessee Hydrocoil Experience, Sixth Annual Oriental Conference on Interventional Neuroradiology, Shanghai, China, October 2006
2. Arthur AS: The Pros and Cons of Expanding Coils, Advanced Aneurysm Treatment Symposium, Oxford University, England, December 2006
3. Arthur AS: Access for Endovascular Neurosurgery, AANS Endovascular Course for Residents, Memphis, TN, April 2007 (oral presentation)
4. Arthur AS: Choices in Aneurysm Surgery, Annual Neurosurgical Symposium, Sarajevo, Bosnia and Herzegovina, September 2007 (oral presentation)
5. Arthur AS: Endovascular and Open Vascular Neurosurgery, Goodman Oral Board Examination by Case Management Course Plenary Session, Houston, Texas, November 7 2010
6. Arthur AS: Hemorrhagic Stroke and Other Brain Disasters, Emergency Medical Systems Neurosymposium, Memphis, Tennessee, November, 2010
7. Arthur AS: Management of Intracranial Aneurysms, Grand Rounds, Baptist Medical System, Memphis, Tennessee, November, 2010
8. Arthur AS: New Developments in Vascular Neurosurgery, Southern Neurosurgery Society, Orlando, FL, February 2011
9. Arthur AS: Extracranial-Intracranial Bypass Surgery, Moderator, CNS Webinar, February, 2011.
10. Arthur AS; New Trends in Vascular Neurosurgery, Tennessee Neurosurgery Society, Pigeon Forge, TN, August 2011
11. Arthur AS; Open Surgical Management of Ruptured Aneurysms, Breakfast Seminar, Congress of Neurological Surgeons Annual Meeting, October 2011
12. Arthur AS, Endovascular and Open Vascular Neurosurgery Plenary Session, Goodman Oral Board Examination by Case Management Course Plenary Session, Houston, Texas, November 8 2011
13. Arthur AS, Vascular Neurosurgery, Southern Neurosurgery Society, Amelia Island, FL, March 2012
14. Arthur AS, Intraoperative Vascular Imaging, Lunch Seminar, AANS Annual Meeting, Miami, FL, April 2012
15. Arthur AS, When to Clip Unruptured Aneurysms, Brainstorm Interactive Course on Interventional Neuroradiology, Edinburgh, Scotland, June 2012
16. Arthur AS, Choice of Aneurysm Coils, Brainstorm Interactive Course on Interventional Neuroradiology, Edinburgh, Scotland, June 2012

17. Arthur AS, "Stroke: What Every Neurosurgeon Needs to Know", TNS Annual Meeting, Chattanooga, TN, August 2012
18. Arthur, AS, Codman Fellows Course, Las Vegas, NV, Faculty, September 23, 2012-September 25, 2012
19. Arthur AS, "Multidisciplinary Management of Arteriovenous Malformations", Physician Extender Course, CNS Annual Meeting, Chicago, IL, October 6, 2012
20. Arthur AS, "Interventional Stroke Management: Tips and Tricks", Dinner Mtg sponsored by Stryker, CNS Annual Meeting, Chicago, IL, October 9, 2012
21. Arthur, AS, "Complex Aneurysms: Creative Solutions to Daunting Problems", Moderator, Congress of Neurological Surgeons Webinar, November 13, 2012
22. Arthur, AS, EMS Neuro Symposium, "Hemorrhagic and Ischemic Stroke for Emergency Medical Technicians", FedEx Institute of Technology, at University of Memphis, Memphis, TN, November 14, 2012
23. Arthur AS, "Negotiating with Hospitals", Cerebrovascular Section Course for Fellows, Honolulu, Hawaii, February 21, 2013. Arthur AS, "Negotiating with Hospitals", Cerebrovascular Section Course for Fellows, Honolulu, Hawaii, February 21, 2013
24. Arthur AS, "Flow Diversion for Cerebral Aneurysms," FACETS Meeting, Dana Point, CA, March 8, 2013
25. Arthur AS, "Case Selection in the Treatment of Cerebral Aneurysms," Stryker Fellows Meeting, Atlanta, GA, April 3, 2013
26. Arthur AS, Fox BD, Elijovich LE, "Image Guidance for Interventional Treatment of Ischemic Stroke," Stryker Fellows Meeting, Atlanta, GA, April 4, 2013
27. Arthur AS, "Modern Treatment of Cerebral Aneurysms," LSU Neurosurgery Visiting Professorship, New Orleans, LA, April 5, 2013
28. Arthur AS, "Guidelines for the Treatment of Intracranial Hemorrhage," Congress of Neurological Surgeons Webinar, April 16, 2013 Arthur AS, "All Is Not Lost: Strategies for Getting Out of Trouble," American Association of Neurological Surgeons Annual Meeting Endovascular Course for Residents, New Orleans, LA April 27, 2013
29. Arthur AS, "Using Flat Panel Detector Angiography Equipment in the Operating Room," American Association of Neurological Surgeons Annual Meeting Operative Technology Breakfast Seminar, New Orleans, LA, May 1, 2013
30. Arthur AS, "Case Presentations: What Would You Do?" Brainstorm Neurointerventional Meeting, Edinburgh, Scotland, June 25, 2013
31. Arthur AS, "Debate: Has Cerebral Bypass Been Relegated to the Dustbin?" Brainstorm Neurointerventional Meeting, Edinburgh, Scotland, June 25, 2013



32. Arthur AS, "Transarterial Treatment of Dural Arteriovenous Fistulae," Plenary Session, Society of Neurointerventional Surgery, Miami, FL, July 31, 2013
33. Arthur AS, "Negotiating with Hospitals and Health Care Companies," Fellows Meeting, Society of Neurointerventional Surgery, Miami, FL, August 2, 2013
34. Arthur AS, "The Impact of the Affordable Care Act on NeuroInterventional Surgeons," Fellows Meeting, Society of Neurointerventional Surgery, Miami, FL, August 2, 2013
35. Arthur AS, Watridge C, "Carotid endarterectomy: patient selection and technique," AANS Open and Endovascular Course for Residents, Memphis, TN, November 9, 2013
36. Arthur AS, "Vascular Neurosurgical Training: Current Trends and Future Prospects," Lende Neurosurgical Meeting, Salt Lake City, UT, February 1, 2014
37. Arthur AS, "Debate: Intraparenchymal Hemorrhage Should be Treated Surgically", Southern Neurosurgery Society, February 20, 2014
38. Arthur AS, "The Future of Vascular Neurosurgery/Interventional Neuroradiology", Invited Guest Lecturer, Brain Interventional Group, Lords of the Manor, Cotswolds, U.K., February 28, 2014
39. Arthur AS, "Management of Dural Arteriovenous Fistulae", Invited Guest Lecturer, Brain Interventional Group Meeting, Lords of the Manor, Cotswolds, U.K., February 28, 2014
40. Arthur AS, "Open and Endovascular Management of Intracranial Aneurysms", Guest Faculty, Advanced Course in Microneurosurgery, Arkansas Neurological Institute, Little Rock, AR, March 7, 2014
41. Arthur AS, "Differences and Use of Onyx and NBCA for Cerebral AVMS", Codman NBCA Course, Memphis, TN, March 28, 2014
42. Arthur AS, "Case Selection in the Treatment of Cerebral Aneurysms", Stryker NeuroNext Fellows Course, Memphis, TN, April 3, 2014
43. Arthur AS, "3D Applications for Endovascular and Cranial Neurosurgery", AANS Annual Meeting, San Francisco, CA. April 7, 2014
44. Arthur AS, "Learning Vascular Neurosurgery: Current Trends and Future Prospects", AANS Annual Meeting, San Francisco, CA, April 8, 2014
45. Arthur AS, "Challenging Cases", Breakfast Seminar, AANS Annual Meeting, San Francisco, CA, April 9, 2014
46. Arthur AS, "Aneurysm Coiling", 2014 FACETS meeting, Aliso Viejo, CA, April 11, 2014
47. Arthur AS, "Stent- Assisted Coiling", 2014 FACETS meeting, Aliso Viejo, CA, April 12, 2014
48. Arthur AS, "The Current Neurointerventional Landscape: Where We Are Now and Where We Are Going", Microvention National Sales Meeting, Dana Point, CA, May 11, 2014

49. Arthur AS, "When I Clip Aneurysms", 2014 Brainstorm Meeting, Edinburgh, Scotland, June 3, 2014
50. Arthur AS, "Off-Piste Usage of Dual-Lumen Balloons", 2014 Brainstorm Meeting, Edinburgh, Scotland, June 4, 2014
51. Arthur AS, "Bypass for the Treatment of Cerebral Aneurysms in the Modern Era", 2014 Brainstorm Meeting, Edinburgh, Scotland, June 5, 2014
52. Arthur AS, "V-Trak Advanced Coils", 2014 SNIS Practicum, Colorado Springs CO, July 28, 2014
53. Arthur AS, "Balloon Guide Catheter Usage", 2014 SNIS Practicum, Colorado Springs, CO, July 28, 2014
54. Arthur AS, "Distal and Proximal Aspiration for Acute Stroke Intervention", 2014 SNIS Practicum, Colorado Springs, CO, July 30, 2014
55. Arthur AS, "The Woven Endobridge and the WEB-IT Trial", 2014 Tennessee Neurosurgical Society, Memphis, TN Aug 9, 2014
56. Arthur AS, "Treatment Options for Cerebral Aneurysms", University of Virginia Department of Neurosurgery Grand Rounds, Sep. 20, 2014
57. Arthur AS, "Pre-hospital stroke care and its importance to the neurosurgeon", Congress of Neurological Surgeons, Oct. 18, 2014 Arthur AS, "Treatment options for MCA aneurysms", Congress of Neurological Surgeons, Oct. 22, 2014
58. Arthur AS, "Best practices for the use of liquid embolics in the treatment of brain arteriovenous malformations", Codman Fellows Course, Memphis, TN, November 7, 2014
59. Arthur AS, "Current status and future trends in stroke and vascular neurosurgery", Capitol Health Grand Rounds, Trenton, NJ, November 21, 2014
60. Arthur AS, "Building a Practice: Hybrid Academic/Private Practice Models", Covidien National Fellows Course, Memphis, TN, December 12, 2014
61. Arthur AS, "The Use of Onyx for the Preoperative Treatment of Brain AVMs", Covidien National Fellows Course, Memphis, TN, December 12, 2014
62. Arthur AS, "Intrasaccular Flow Disruption", SNIS/CV Section Fellows Course, Nashville, TN, February 8, 2015
63. Arthur AS, "Aneurysm Treatment Choices", FACETS meeting, Dana Point, CA, April 3, 2015
64. Arthur AS, "Why it's important to have all the tools for care of cerebrovascular patients", American Association of Neurological Surgeons Fellows' Course, Washington, DC, May 2, 2015

65. Arthur AS, "What Is Stroke in 2015?", Houston Endovascular Embo Club, Houston, TX, May 22, 2015
66. Arthur AS, "Update on WEBIT and Intracascular Flow Disruption Pseudolive Case", World Live Neurointerventional Conference, Chicago, IL, June 9, 2015
67. Arthur AS, "New Technology in the Angio Suite for Acute Stroke", Society for Neurointerventional Surgery, San Francisco, CA, July 27, 2015
68. Arthur AS, "Intracascular Flow Disruption", Congress of Neurological Surgeons Residents' Course, New Orleans, LA, September 26, 2015
69. Arthur AS, "Evidence Based Treatment of AVMs", Congress of Neurological Surgeons Luncheon Seminar, New Orleans, LA, September 27, 2015
70. Arthur AS, "Controversies in Cerebrovascular Surgery", Congress of Neurological Surgeons Luncheon Seminar, New Orleans, LA, September 28, 2015
71. Arthur AS, "Deep Hemorrhage Evacuation: A Game-changing Surgical Approach to a Largely Untreated Condition", European Association of Neurological Surgeons, Madrid, Spain, October 19, 2015
72. Arthur AS, "Dural Arteriovenous Fistulae", AANS Vascular Course for Residents, Memphis, TN, October 6, 2015
73. Arthur AS, "(R)evolution in Neuroangiography Equipment", WFITN, Gold Coast, Australia, November 10, 2015
74. Arthur AS, "The Difficulties and Benefits of Multispecialty Collaboration", CV Section/SNIS Fellows' Course, Los Angeles, CA, February 15, 2016
75. Arthur AS, "When I Cross Aneurysms Over to Clipping", CV Section/SNIS Annual Meeting, Los Angeles, CA, February 15, 2016
76. Arthur AS, "How Can We Improve Stroke Intervention", 6<sup>th</sup> Annual Greek Cerebrovascular Meeting, Thessaloniki, Greece, March 5, 2016
77. Arthur AS, "Early Experience with the Catalyst Intermediate Catheters", Live Interventional Neuroradiology and Neurosurgery Course, New York, NY, March 19, 2016
78. Arthur AS, "Why Its Worthwhile Having All of the Tools", AANS Annual Meeting Residents' Course, Chicago, IL, May 1, 2016
79. Arthur AS, "Commentary on Endovascular Treatment of Small Acomm Aneurysms", AANS Annual Meeting, Chicago, IL, May 2, 2016
80. Arthur AS, "The Rationale for Minimally Invasive Treatment of Intracerebral Hemorrhage", AANS Annual Meeting, Chicago, IL, May 2, 2016
81. Arthur AS, "Which aneurysms should not be treated via an endovascular approach", Live Interventional Neuroradiology and Neurosurgery Course, Paris, France, May 23, 2016

82. Arthur AS, "The Physician Training Program for the WEBIT Study", Society for Neurointerventional Surgery Annual Meeting, Boston, MA, July 26, 2016
83. Arthur AS, "Outside the Lines", Society for Neurointerventional Surgery Annual Meeting, Boston, MA, July 25, 2016
84. Arthur AS, Fiorella D, "Minimally invasive surgery vs. best medical management for ICH- the INVEST trial", Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 27, 2016
85. Arthur AS, "Intrasaccular Flow Disruption", AIM Symposium, New York, NY, November 17, 2016
86. Arthur AS, "My Worst Complications and What I Have Learned from Them", Nordic Neurointerventional Meeting, Rungstedgaard, Denmark, December 2, 2016
87. Arthur AS, "Intrasaccular Flow Disruption", FACETS Course, Newport Beach, CA, January 27, 2017
88. Arthur AS, "The WEBIT trial: Update and Future Prospects", ISNND Meeting, Abu Dhabi, UAE, February 13, 2017
89. Arthur AS, "Update on Intracranial Access Products", ISNND Meeting, Abu Dhabi, UAE, February 13, 2017
90. Arthur AS, "Intrasaccular Flow Disruption", SNIS/CV Section Fellows' Course, Houston, TX, February 20, 2017
91. Arthur AS, "Linking Diagnosis in the field to treatment in the lab for ELVO patients", LINNC, New York, NY, March 25, 2017
92. Arthur AS, "Commentary on Platelet Reactivity and Thromboembolic Complications for Patients with Pipeline-treated Aneurysms", AANS Annual Meeting, Los Angeles, CA, April 24, 2017
93. Arthur AS, "Treatment of supratentorial dural arteriovenous fistulae", Brainstorm Neurointerventional Course, June 6, 2017
94. Arthur AS, "WEB should be the first-line therapy for ruptured bifurcation aneurysms", Brainstorm Neurointerventional Course, June 6, 2017
95. Arthur AS, "Treatment of carotid-cavernous fistulae", Brainstorm Neurointerventional Course, June 7, 2017
96. Arthur AS, "Ruptured Aneurysms Should Be Treated Early", ESMINT Annual Meeting and EANS Vascular Symposium, Nice, Paris, September 7, 2017
97. Arthur AS, Goyal NT, Tsivgoulis G, "ELVO Patients with low NIHSS Should Be Treated", ESMINT Annual Meeting, Nice, Paris, September 8, 2017
98. Arthur AS, "Where Should We Select Patients for Endovascular Stroke Therapy?", SYM2 Practical Course, CNS Annual Meeting, Boston, MA, October 8, 2017

99. Arthur AS, "The Evolution of Flow Diversion- Past, Present and Future", LINNC, Singapore, November 16, 2017
100. Arthur AS, "Intrasaccular Flow Disruption", SNIS/CV Section Fellows' Course, Los Angeles, CA, January 22, 2018
101. Arthur AS, "My Last Fifty Aneurysms", CV Section Annual Meeting, Los Angeles, CA, January 23, 2018
102. Arthur AS, "Stroke Complications", FACETS Fellows' Course, Aliso Viejo, CA, February 8, 2018
103. Arthur AS, "Flow Diversion" , FACETS Fellows' Course, Aliso Viejo, CA, February 8, 2018
104. Arthur AS, "Complications", FACETS Fellows' Course, Aliso Viejo, CA, February 9, 2018
105. Arthur AS, "The WEB and the WEB-IT trial", FACETS Fellows' Course, Aliso Viejo, CA, February 9, 2018
106. Arthur AS, "Background and Procedural Steps for Carotid Angioplasty and Stenting", FACETS Fellows' Course, Aliso Viejo, CA, February 8, 2018
107. Arthur AS, "Dural arteriovenous fistulae", FACETS Fellows' Course, Aliso Viejo, CA, February 10, 2018
108. Arthur AS, "Confessions of a stroke surgeon", Ohio State University Grand Rounds, Columbus, OH, March 15, 2018
109. Arthur AS, "Whats new about endosaccular flow disruption", Brainstorm, Edinburgh, Scotland, June 5, 2018
110. Arthur AS and Mocco J, "All that counts for stroke intervention is speed. Nothing else matters", Brainstorm, Edinburgh, Scotland, June 5, 2018
111. Arthur AS, "Reimbursement for Mechanical Thrombectomy", SNIS Annual Meeting, San Francisco, CA, July 23, 2018
112. Arthur AS, "WEB Outcomes and Trial Results", SNIS Annual Meeting, San Francisco, CA, July 24, 2018
113. Arthur AS, "Where should stroke patient selection occur?", Congress of Neurological Surgeons, Houston, TX, October 6, 2018
114. Arthur AS, "The place of flow diversion in the treatment of cerebral aneurysms", Stryker Advanced Aneurysm Treatment Course, Vienna, Austria, November 12, 2018
115. Arthur AS, "WEB and the WEB-IT Study", FACETS Fellows' Course, Aliso Viejo, CA, January 25, 2019
116. Arthur AS, "Stroke methodology and complication avoidance", FACETS Fellows' Course, Aliso Viejo, CA, January 25, 2019

117. Arthur AS, "Flow Diversion: interactive case presentation", ACAM, Seoul, South Korea, January 31, 2019
118. Arthur AS, "Defining modern patient criteria for flow diversion- are we there yet?", ACAM, Seoul, South Korea, January 31, 2019
119. Arthur AS, "Flow diversion- the questions we need to address", ACAM, Seoul, South Korea, January 31, 2019
120. Arthur AS, "Patient selection and clinical trials", Endoscopic Minimally Invasive ICH Evacuation Course, Honolulu, Hawaii, February 3, 2019
121. Arthur AS, "Flow Diversion", Fellows' Course, Joint CV Section/SNIS annual meeting, Honolulu, Hawaii, February 4, 2019
122. Arthur AS, "Choices for bifurcation aneurysms", Joint CV Section/SNIS annual meeting, Honolulu, Hawaii, February 5, 2019
123. Arthur AS, "Intrasaccular flow disruption", Joint CV Section/SNIS annual meeting, Honolulu, Hawaii, February 5, 2019
124. Arthur AS, "Middle meningeal artery embolization for chronic subdural hematomae", Flow in the Snow, Boise, Idaho, March 11, 2019
125. Arthur AS, "WEB and the WEB-IT Study", Austalian and New Zealand Neuroradiology Annual Meeting, Adelaide, Australia, March 24, 2019
126. Arthur AS, "Surgical and endovascular approaches to dural arteriovenous fistulae", AANS International Symposium, San Diego, CA, April 13, 2019
127. Arthur AS, "The MIND trial and the Artemis device for intracranial hemorrhage", AANS Annual Meeting, San Diego, CA, April 15, 2019
128. Arthur AS, "Treatment options for intracranial aneurysms", Cerenovus Fellows' Course, Memphis, TN, May 18, 2019
129. Arthur AS, "Stroke: Where we are and what we need now", Live Interventional Neuroradiology and Neurosurgery Course, Keynote Address, Paris, France, June 5, 2019
130. Arthur AS, "The WEB-IT Study, what I learned as trial P.I.", Brainstorm, Edinburgh, Scotland, June 11, 2019
131. Arthur AS, "Spinal dural arteriovenous fistulae: primarily a disease best treated with open surgery", Brainstorm, Edinburgh, Scotland, June 11, 2019
132. Arthur AS, "The burden of ELVO call is increasing, how will we meet the demand?", SNIS Annual Meeting, Miami, Florida, July 21, 2019
133. Arthur AS, "Neuroendovascular Surgery and the Butterfly Effect," SNIS Annual Meeting, Miami, Florida, July 21, 2019

134. Arthur AS, "MCA Aneurysms- clip to endovascular," Harvard Cerebrovascular Symposium, October 5, 2019
135. Arthur AS, "The WEB for wide-necked bifurcation aneurysms," CNS Annual Meeting, San Francisco, California, October 20, 2019
136. Khan N, Arthur AS, "Current Management Strategies for Posterior Circulation Aneurysms," Neurovascular Symposium 2019, Taj Club House, Chennai, India, November 8, 2019
137. Arthur AS, Dornbos D, "Maximizing patient outcomes using your stroke portfolio," Asia-Pacific Stroke Leadership Forum, November 14, 2019
138. Arthur AS, Dornbos D, "Acute Ischemic Stroke Treatment- Now and in the Future," LINNC Asia, November 15, 2019

**PEER-REVIEWED PRESENTATIONS**

1. Kang S, Arthur AS, Kassell NF, Lee KS: Systemic administration of a novel calpain inhibitor attenuates subarachnoid hemorrhage induced vasospasm. American Association of Neurological Surgeons, Orlando, Florida, April, 1995. (poster)
2. Lanzino G, Arthur A, Fergus A, Mathys J, Lee K, Kassell N: Deferiprone attenuates cerebral vasospasm. Congress of Neurological Surgeons, Montreal, Canada, October, 1996. (poster)
3. Arthur AS, Lanzino G, Fergus AH, Mathys J, Kassell NF, Lee KS: Systemic administration of the iron chelator deferiprone attenuates subarachnoid hemorrhage induced cerebral vasospasm in the rabbit. 6th International Conference on Cerebral Vasospasm, Sydney, Australia, May, 1997. (oral presentation)
4. Wanebo JE, Arthur AS, Louis HG, Kassell NF, Lee KS, Helm GA: The endothelin-A receptor antagonist TBC 11251 attenuates cerebral vasospasm after experimental subarachnoid hemorrhage: dose study. American Association of Neurological Surgeons, Philadelphia, Pennsylvania, April, 1998. (oral presentation)
5. Wanebo JE, Arthur AS, Louis HG, Kassell NF, Kee KS, Helm GA: Prevention of cerebral vasospasm by the administration of the endothelin-A receptor antagonist Ro 61-1790 in a rabbit model of subarachnoid hemorrhage. Joint Section on Cerebrovascular Surgery, Orlando, Florida, February, 1998 and Southern Neurosurgical Society, Hot Springs, Virginia, June, 1998. (oral presentations) (*First Place, Resident's Basic Science Award, Southern Neurosurgical Society Meeting, 1998*)
6. Arthur A, MacDonald T, Alden T, Rossi J, Vincent D, Polin R, Kassell N: Drug design and dosage testing of two hydroxypyridine iron chelators in a rabbit model of experimental cerebral vasospasm. Congress of Neurological Surgeons, Boston, Massachusetts, November, 1999. (oral poster)
7. Arthur AS, Barbosa MD, Louis RH, Macdonald T, Polin RA, Gazak C, Kassell NF: The 5-lipoxygenase inhibitor ABT-761 inhibits cerebral vasospasm in a rabbit model of subarachnoid hemorrhage. Congress of Neurological Surgeons, Boston, Massachusetts, November, 1999. (oral poster)
8. Arthur AS, House PH, MacDonald JD, Tsuruda J, Parker D, Buzzwell RT, Schmidt RH: High resolution magnetic resonance angiography for the evaluation of acute subarachnoid hemorrhage: the University of Utah experience. Congress of Neurological Surgeons, San Antonio, Texas, October, 2000. (oral poster)
9. Arthur AS, House PH, MacDonald JD, Tsuruda J, Parker D, Buzzwell RT, Schmidt RH: Experience with magnetic resonance angiography for the evaluation of acute subarachnoid hemorrhage. AANS/CNS Cerebrovascular Surgery Section, Waikoloa, Hawaii, February, 2001. (poster)
10. Arthur AS, Kestle JRW: Length of antibiotic therapy for the treatment of shunt infection. AANS/CNS Pediatric Neurosurgery Section, New York, New York, December, 2001. (oral presentation)



11. Arthur AS, Kestle JRW: Antibiotic therapy for the treatment of shunt infection. 3rd International Hydrocephalus Conference, Chicago, Illinois, May, 2002. (oral presentation)
12. Arthur AS, Morris SD, Broadbent LP, Dixit S, Singel S, Wilson S, Barr JD: Initial experience with neurovascular placement of drug eluting coronary stents. AANS/CNS Cerebrovascular Section/ASITN, New Orleans, Louisiana, February 2005. (electronic poster)
13. Arthur AS, Wilson S, Dixit S, Morris SD, Broadbent LP, Barr JD: Initial experience with hydrogel coated coils for the treatment of cerebral aneurysms. Southern Neurosurgical Society, Key West, Florida, March 2005. (oral presentation)
14. Dixit S, Arthur AS, Barr JD: Endovascular treatment of middle cerebral artery aneurysms. Southern Neurosurgical Society, Key West, Florida, March 2005. (oral presentation)
15. Arthur AS: Cyanoacrylate glue embolization of mycotic aneurysms. Neurosurgery at Jackson Hole, Jackson Hole, Wyoming, March 2005. (oral presentation)
16. Barr JD, Arthur AS, Wilson S: Preliminary experience with hydrocoil for treatment of cerebral aneurysms, American Society of Neuroradiology, Toronto, Ontario, June 2005 (oral presentation).
17. Arthur AS, Wilson S, Barr JD: Hydrocephalus after endovascular treatment of unruptured aneurysms, Lende Neurosurgery Conference, Salt Lake City, UT, February 2006 (oral presentation).
18. Arthur AS, Wilson S, Barr JD: Initial Experience with Neurovascular Placement of Drug Eluting Coronary Stents, Southern Neurosurgical Society, Southampton, Bermuda, March 2006 (oral presentation)
19. Arthur AS: Early Experience in Combining Endovascular and Cerebrovascular Practice, Lende Neurosurgery Conference, Salt Lake City, Utah, February 2007 (oral presentation)
20. Arthur AS: Case Selection in Combined Endovascular/Cerebrovascular Practice, Southern Neurosurgical Society, Sea Island, Georgia, March 2007 (oral presentation)
21. Arthur AS, Killer M, Cruise G, Al-Schameri A, Elbert DL: Comparison of Cytokine and Growth Factor Expression in CSF of Patients with Hydrocephalus of Differing Etiologies, Congress of Neurological Surgeons, San Diego, California, October 2007 (digital poster)
22. Arthur AS, Afshani M: Treatment Options for Giant Aneurysms, Lende Neurosurgery Conference, Salt Lake City, Utah, February 2010 (oral presentation)
23. Arthur AS, "Rupture of Giant Aneurysm Seven Days After Flow Diversion," World Federation of Interventional and Therapeutic Neuroradiology, Val D'Isere, France, January 15, 2013 (oral presentation)
24. Arthur AS, "Flow Diversion: When NOT to Use It," Lende Neurosurgical Meeting, Salt Lake City, UT, February 1, 2014 (oral presentation)

25. Arthur AS, "The Use of Vascular Simulator for Physician Training in the WEB-IT PMA Trial," ABC-WIN Conference, Val D'Isere, France, January 14, 2015 (oral presentation)
26. Arthur AS, "Physician Training in the WEB-IT Trial," Lende Neurosurgical Conference, Salt Lake City, UT, February 2, 2015 (oral presentation)
27. Arthur AS, Fiorella D, "The WEB Intracascular Therapy Study (WEB-IT)," International Stroke Conference, Nashville, TN, February 9, 2015 (poster presentation)
28. Arthur AS, "Physician Training in the WEB-IT International Clinical Trial," Neurosurgical Society of America, Pelican Hill, CA, April 13, 2015 (oral presentation)
29. Arthur AS, "The WEBIT Clinical Trial Design and Update on Enrollment," Society of Neurointerventional Surgery, San Francisco, CA, July 26, 2015 (poster presentation)
30. Arthur AS, "The WEBIT Clinical Trial Design and Update on Enrollment," WFITN, Gold Coast, Australia, November 11, 2015 (oral presentation)
31. Arthur AS, "The Use of the Replicator for Physician Training in the WEBIT Clinical Trial," WFITN, Gold Coast, Australia, November 11, 2015 (oral presentation)
32. Elijovich LE, Hoit DA, Vachhani J, Hord E, Arthur AS, "Prognostic Value of Endothelial Injury in Patients Undergoing Mechanical Thrombectomy for Emergent Large Vessel Occlusion: A Prospective Registry", ISC, Los Angeles, CA, February 15-18 (poster presentation)
33. Fiorella D, Mocco J, Arthur AS, "The INVEST trial", Congress of Neurological Surgeons Annual Meeting, San Diego, CA, September 27, 2016 (oral presentation)
34. Stanfill, A., Baughman, B, Arthur, A, Foley, R, Speaks, T, Piraino, M, & Elijovich, L, "Retrospective analysis of 1 and 3 month mortality outcomes post subarachnoid hemorrhage", Abstract for poster presentation at American Neurological Association conference, San Diego, CA.
35. Stanfill, A., Piraino, M., Goyal, N., Alsherbini, K., Malkoff, M., Arthur, A., & Elijovich, L. (2018). DRD2 promoter region methylation patterns post aneurysmal subarachnoid hemorrhage. Abstract for podium presentation at the International Society of Nurses in Genetics conference, Orlando, FL.
36. Arthur A, Fiorella D, "The STEM randomized controlled trial- rationale and design", ABCWIN, Val D'Isere, Switzerland, January 14, 2019.
37. Fiorella D, Arthur A, "WEB-IT results", ABCWIN, Val D'Isere, Switzerland, January 15, 2019.
38. Arthur AS: "The Final One Year Results of the WEB-IT PMA trial", AANS Annual Meeting Plenary Session, San Diego, CA, April 17, 2019.

**EDITORIAL APPOINTMENTS**

Editorial Board, AANS Neurosurgeon, 2017-2018

Lead Editor, Neurosurgical Focus, June issue, "Endovascular Treatment of Cerebral Aneurysms: Flow Diversion and Beyond"

Associate Editor, Operative Neurosurgery, 2016-present

Reviewer, Neurosurgical Review, 2017-present

Reviewer, Expert Review of Neurotherapeutics, 2016-present

Member of Review Board, Brain Circulation, 2015-present

Reviewer, Journal of Spinal Cord Medicine, 2015-present

Curator/Editorial Board, Cerebrovascular Section, Operative Neurosurgery, 2015-2019

Associate Editor, Frontiers in Neurosurgery, 2015-2017

Reviewer, World Neurosurgery, 2015- present

Associate Editor, Neurosurgery, Endovascular Neurosurgery Section. 2014-present

Reviewer, International Stroke Conference Annual Meeting, 2013-2014

Reviewer 2013 SNIS Annual Meeting Abstracts

Reviewer, Cerebrovascular Section, Neurosurgery, 2008-present

Reviewer, Journal of Neurointerventional Surgery, 2012-present

Reviewer, CNS 2001 General Interest Abstracts

Ad Hoc Reviewer, Journal of Cerebral Blood Flow and Metabolism, 1997-present

Ad Hoc Reviewer, Journal of Neurosurgery, 1996-present

Ad Hoc Reviewer, Journal of Neuroimaging, 1997-present

Ad Hoc Reviewer, Stroke, 2012-present

Ad Hoc Reviewer, American Journal of Neuroradiology, 2017-present

**COMMITTEES AND OFFICES HELD**

Chair, Neurosurgery Research and Education Foundation Education Committee, 2019-present

Treasurer, AANS/CNS Joint Cerebrovascular Section (elected position), 2019-present

Director, Neurosurgery Research and Education Foundation Board of Directors, 2019-2021

Member, Neuroendovascular Surgery Advisory Council, Committee on Advanced Specialty Training, The Society of Neurological Surgeons, 2019-2025

President, Society for Neurointerventional Surgery (elected position), 2018-2019

Scientific Program Committee, 2019 Annual Meeting of the American Association of Neurological Surgeons, San Diego, CA

Board Member, Semmes-Murphey Neurologic and Spine Clinic (elected position), 2013-present

Board Member, Neurosurgery PAC, 2017-2019

Scientific Program Committee, 2018 Annual Meeting of the American Association of Neurological Surgeons, New Orleans, LA

President-Elect, Society for Neurointerventional Surgery (elected position), 2017-2018

Scientific Program Committee, 2017 Society for Neurointerventional Surgery Annual Meeting, Colorado Springs, CO

Nominating Committee, AANS/CNS Joint Cerebrovascular Section (elected position), 2016-2019

Vice President, Society for Neurointerventional Surgery, Board of Directors (elected position), 2016-2017

Scientific Program Committee, 2017 Annual Meeting of the American Association of Neurological Surgeons, Los Angeles, CA

Chair, Scientific Program, 2017 Annual Meeting of the AANS/CNS Cerebrovascular Section, Houston, TX

Chair, Scientific Program, 2017 Southern Neurosurgery Society, Orlando, FL

Scientific Program Committee, 2016 Society for Neurointerventional Surgery Annual Meeting, Boston, MA

Chair, Cerebrovascular Section Scientific Program, 2016 Annual Meeting of the American Association of Neurological Surgeons, Chicago, IL

Scientific Program Committee, 2016 American Association of Neurological Surgeons, Chicago, IL

Scientific Program Committee, 2016 Society for Neurointerventional Surgery Meeting, Boston, MA

Scientific Program Committee, 2016 Cerebrovascular Complications Conference, Jackson Hole, WY

Scientific Program Committee, 2016 Southern Neurosurgery Society, San Antonio, TX

Secretary, Society for Neurointerventional Surgery, Board of Directors (elected position) 2015-2016

Neurosurgeon Member At Large, Society for Neuroinventional Surgery, Board of Directors (elected position) 2014-2015

Scientific Program Committee, 2015 Congress of Neurological Surgeons Meeting, New Orleans, LA

Chair, Cerebrovascular Section Scientific Program, 2015 Annual Meeting of the Congress of Neurological Surgeons, New Orleans, LA

Scientific Program Committee, 2015 Southern Neurosurgery Society, Naples, FL

Scientific Program Committee, 2015 SNIS Annual Meeting, San Francisco, CA

Member, AANS Public Education Committee, 2014-2016

Member, AANS Development Committee, 2015-2018

Scientific Program Committee, 2014 Congress of Neurological Surgeons Meeting, Boston, MA

Membership Committee, Southern Neurosurgery Society, 2013-2016

Scientific Program Committee, 2014 SNIS Annual Meeting, Colorado Springs, CO

Co-Chair, 2014 Cerebrovascular Complications Conference, Jackson Hole, WY

Scientific Program Committee, 2013 CV Section/SNIS IESC Meeting, San Diego, CA

Plenary Session Vascular Neurosurgery Faculty, 2013 Goodman Board Course, Houston, TX

Moderator, World Live Neurovascular Conference, Istanbul, Turkey, 2013

Moderator, Operative Technology Breakfast Seminar, 2013 AANS Meeting, New Orleans, LA

Chair, Medical Education Research Institute Academic Review Board, 2013-2015

Member, AANS Public Relations Committee, 2013-2015

Chair, American Heart Association Heart Ball, 2013, Memphis, TN

Moderator, Session on AVMs, Cerebrovascular Section Annual Meeting, 2013, Honolulu, HI

Board Member, Medical Education Research Institute, 2012-present

Member, AANS Development Committee, 2012-present

Treasurer, Tennessee Neurosurgical Society, 2010-2012

Assistant Secretary, Semmes-Murphey Clinic Board of Governors, 2010-2017

Scientific Program Committee, Congress of Neurologic Surgeons Annual Meeting, Chicago, Illinois, 2006

International Society for Cerebral Blood Flow and Metabolism Summer Session, 1994 -Cambridge University, U.K. (One of 40 researchers selected internationally.)

Student Member, University of Virginia Board of Visitors, 1991-1992

**RESIDENTS/FELLOWS/GRADUATE STUDENTS TRAINED**

Daniel Kueter MD, Residency in Neurosurgery, 2004-2006

Kelly Scrantz MD, Residency in Neurosurgery, 2004-2006

Jason Weaver MD, Residency in Neurosurgery, 2004-2007

Frederick Harris MD, Residency in Neurosurgery, 2004-2007

Grant Buttram MD, Residency in Neurosurgery, 2004-2008

James Weimar MD, Residency in Neurosurgery, 2004-2009

Jody Helms MD, Residency in Neurosurgery, 2004-2010

David Yam MD, Residency in Neurosurgery, 2004-2010

Peter Boehm MD, Residency in Neurosurgery, 2005-2011

Jared Broadway MD, Residency in Neurosurgery, 2005-2011

Adam Oliver MD, Residency in Neurosurgery, 2006-2012

Mark Van Poppel MD, Residency in Neurosurgery, 2006-2012

Gabriel Phillips MD, Residency in Neurosurgery, 2007-2013

Brent Kimball MD, Residency in Neurosurgery, 2007-2013

Berkeley Bate MD, Residency in Neurosurgery, 2008-2014

Tyler Auschwitz MD, Residency in Neurosurgery, 2009-2015

Jonathan Reding MD, Residency in Neurosurgery, 2009-2015

Adam Befeler MD, Residency in Neurosurgery, 2010-2016

Michael DeCuypere MD PhD, Residency in Neurosurgery, 2010-2016

Matthew Vanlandingham MD, Residency in Neurosurgery, 2010-2016

Prayash Patel MD, Residency in Neurosurgery, 2011-2017

Nicholas Rossi MD, Residency in Neurosurgery, 2011-2017

Matthew Brown MD, Residency in Neurosurgery, 2012-2018

Ryan P. Lingo MD, Residency in Neurosurgery, 2012-2018

- Daniel A. Hoit MD MPH, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2007- 2009
- Mansour Afshani MD, Fellowship in Surgical Interventional Neuroradiology, 2008-2010
- Saul Wilson MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2009-2011
- Tetsuhiro Higashida MD PhD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2010-2012
- Benjamin Fox MD MPH, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2011-2013
- Vinod T. Doss DO, Fellowship in Surgical Interventional Neuroradiology, 2012-2014
- William Humphries MD MPH, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2012-2014
- Edward Duckworth MD, Fellowship in Endovascular Neurosurgery, 2013-2015
- Andrey Belayev MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2014-2016
- Christopher Nickle MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2014-2016
- Jay Vachhani MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2015-2017
- Brandon Burnsed MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2016-2018
- Ahmed Cheema MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2016-2018
- Tarek Abuelem, MD, Fellowship in Cerebrovascular and Endovascular Neurosurgery, 2017-2019



**RESEARCH AND OTHER EXTERNAL SUPPORT**

International Principal Investigator, VANTAGE trial of the Pipeline Vantage device for the treatment of broad-necked ruptured intracranial aneurysms

International Principal Investigator, STEM trial of MMA embolization for the treatment of chronic subdural hematoma

International Principal Investigator, EVOLVE study of the Stryker flow diverter for the treatment of unruptured aneurysms of the carotid circulation

International Principal Investigator, PROMISE study of the Lio aneurysm occlusion device

International Co-Principal Investigator, MIND, IDE RCT of endoscopic minimally invasive evacuation of ICH vs. best medical management

International Principal Investigator, RAGE study of hydrogel coils for the treatment of ruptured aneurysms

Site Principal Investigator, CREST-2 (Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis)

International Principal Investigator, BRAVO FIRST, Pivotal Study of the BRAVO Flow Diverter

National Co-Principal Investigator, INVEST, Phase II Trial of the Apollo System for the Treatment of Intracranial Hemorrhage

Co-Principal Investigator for the Mobile Stroke Station Project, Siemens Healthcare

International Principal Investigator, Pivotal Study of the WEB Device for the Treatment of Ruptured and Unruptured Intracranial Bifurcation Aneurysms (WEB-IT)

Site Principal Investigator, COMPASS Randomized Trial for Mechanical Embolectomy

Site Principal Investigator, FEAT Randomized Trial of Large vs. Small Framing Coils for Cerebral Aneurysms

Site Principal Investigator, COAST Single-arm Trial of hydrogel coils for small aneurysms

Site Principal Investigator, Pivotal Study of the Atlas System for the Treatment of Wide-Necked Cerebral Aneurysms

Site Principal Investigator, 4D Digital Subtraction Angiography, Siemens Medical Systems

Site Principal Investigator, Volume of Interest/Metal Artifact Reduction, Siemens Medical Systems

Site Principal Investigator, Parenchymal Blood Volume Imaging for Acute Stroke, Siemens Medical Systems

Site Principal Investigator, iGuide for the Placement of External Ventricular Drains, Siemens Medical Systems

Site Principal Investigator, Utilization of DynaCT for open stereotactic surgery, Siemens Medical Systems

Planning Committee POSITIVE (Perfusion imaging Selection of Ischemic Stroke Patients for Endovascular Therapy)

Site Principal Investigator, POSITIVE (Perfusion imaging Selection of Ischemic Stroke Patients for Endovascular Therapy)

Site Principal Investigator, Pivotal Study of the FRED Stent System in the Treatment of Intracranial Aneurysms

National Study Committee, Pivotal Study of the FRED Stent System in the Treatment of Intracranial Aneurysms

Site Principal Investigator, LVIS Neurovascular Self-Expanding Retrievable Stent System in the Treatment of Wide-Necked Intracranial Artery Aneurysms

Site Principal Investigator, Carotid Revascularization Endarterectomy vs Stenting Trial (CREST)

Site Principal Investigator, Carotid ACCULINK/ACCUNET Post Approval Trial to Uncover Rare Events (CAPTURE 2)

Site Principal Investigator, Stenting and Angioplasty with Protection in Patients at High Risk for Endarterectomy (SAPPHIRE)

Site Principal Investigator, Carotid Stenting for High Surgical-Risk Patients (CHOICE)

**BOOKS AND BOOK CHAPTERS**

1. Kang S, Arthur AS, Beres E, Fergus A, Boals C, Lee KS: Calpain and cerebrovascular injury. In **Calpain: pharmacology and toxicology of a calcium-dependent cellular protease**, Wang KW and Wai PW editors, Taylor and Francis publishers, Bristol, PA, pp 251-265, 1999.
2. Lonser RA, Arthur AS, Apfelbaum RI: Neurovascular decompression in surgical disorders of cranial nerves V, VII, IX and X. Chapter 118 in **Operative Neurosurgical Techniques**, Fourth Edition, H.H. Schmidek editor, W.B. Saunders Company publisher, Philadelphia, PA, pp 1576-1588, 2000.
3. Brockmeyer DL, Arthur AS, Gruber DL, Walker ML: Anterior skull base surgery in children. In **Textbook of Neurological Surgery**, Loftus and Batjer editors, Lippincott-Raven Publishers, Philadelphia, PA, 2003.
4. Arthur AS: Cerebrovascular Section Associate Editor, In **2009 Year Book of Neurology and Neurosurgery**, Rabinstein and Klimo editors, Elsevier Mosby, 2009
5. Fox BD, Rohrer MS, Arthur AS: Femoral Artery Access, In **Neurointerventional Surgery-Tricks of the Trade**, Gonzalez, Albuquerque and McDougall editors, Thieme Publishers, New York, NY, 2014.
6. Fox BD, Arthur AS: Brachial Artery Access, In **Neurointerventional Surgery-Tricks of the Trade**, Gonzalez, Albuquerque and McDougall editors, Thieme Publishers, New York, NY, 2014.
7. Fox BD, Arthur AS: Medical, Surgical and Endovascular Treatment of Arterial Injury, In **Neurovascular Surgery**, 2nd Edition, Spetzler, Kalani and Nakaji editors, Thieme Publishers, New York, NY, 2015.
8. Green C, Duckworth E, Hoit D, Arthur AS: Cranial Dural Arteriovenous Fistulae, In **Neurosurgery Knowledge Update**, Harbaugh, Shaffrey and Couldwell editors, Thieme Publishers, New York, NY, 2015.
9. Arthur AS, Hoit DA, Watridge C: Discussion of the Treatment Options for Carotid Aneurysms, In **Controversies in Vascular Neurosurgery**, Veznedaroglu editor, Springer International Publishing, Switzerland, 2016.
10. Burnsed B, Nickle C, Arthur AS: Future Development and Research, In **Flow Diversion of Cerebral Aneurysms**. Park, Taussky, Albuquerque, and McDougall editors, Thieme Publishers, New York, NY, 2017.
11. Vachhani J, Arthur AS: Iatrogenic Large Vessel Injury, In **Cerebrovascular and Endovascular Neurosurgery- Complication Avoidance and Management**, Gandhi and Prestiagiaco editors, Dpringer International Publishing, Cham, Switzerland, 2018.
12. Vachhani J, Bsama J, Veznedaroglu E, Lawton M, Aboud E, Arthur A: The Role of the NREF Endovascular and Cerebrovascular Courses in Neurosurgical Residency and Fellowship Training and Future Directions, In **Comprehensive Healthcare Simulation: Neurosurgery Edition**, Alaraj ed. In Press.

13. Arthur AS, Foley K, and Hamm CW editors: **Perioperative Considerations and Positioning for Neurosurgical Procedures- A Clinical Guide**. Springer International Publishing, Cham, Switzerland, 2018.
14. Goyal N, Arthur AS, Hoit D: Critical Care Management of Aneurysmal SAH After the Aneurysm is Secured, In **Intracranial Aneurysms**, Ringer editor, Elsevier, 2018.
15. Moore KA, Arthur AS, Hamm CW: Anesthesia Management of Intracranial Aneurysms, In **Intracranial Aneurysms**, Ringer editor, Elsevier, 2018.
16. Nickele C, Cheema A, Hoit D, Arthur AS: Intra-saccular Flow Diversion, In **Intracranial Aneurysms**, Ringer editor, Elsevier, 2018.
17. Alexandrov A, Arthur AS: Mobile Stroke Units: Field Imaging and Triage for Acute Stroke Emergencies, In **Management of Cerebrovascular Disorders**, Spiotta et al editors, Springer Nature, 2018.
18. Inoa C, Goyal N, Abuelem T, Arthur AS: Flow Diversion, In **Hemorrhagic and Ischemic Stroke: Initial Triage, Critical care, Microsurgical, Minimally invasive and Neurointerventional Management**, Bendok editor, In preparation.

**PEER-REVIEWED JOURNAL ARTICLES**

1. Sutter B, Suzuki S, Arthur AS, Kassell NF, Lee KS: Effects of subarachnoid hemorrhage on vascular responses to calcitonin gene-related peptide and its related second messengers. *Journal of Neurosurgery* 83(3): 516-21, 1995 Sep.
2. Caner HH, Kwan AL, Arthur A, Jeng AY, Lappe RW, Kassell NF, Lee KS: Systemic administration of an inhibitor of endothelin-converting enzyme for attenuation of cerebral vasospasm following experimental subarachnoid hemorrhage. *Journal of Neurosurgery* 85(5): 917-22, 1996 Nov.
3. Wanebo JE, Louis HG, Arthur AS, Zhou J, Kassell NF, Lee KS, Helm GA: Systemic administration of an endothelin-A receptor antagonist, TBC 11251, attenuates cerebral vasospasm in a rabbit model of subarachnoid hemorrhage. *Neurosurgical Focus* 3(4), Article 6, 1997 Oct.
4. Arthur AS, Fergus AH, Lanzino G, Mathys J, Kassell NF, Lee KS: Systemic administration of the iron chelator deferiprone attenuates subarachnoid hemorrhage-induced cerebral vasospasm in the rabbit. *Neurosurgery* 41(6): 1385-1392, 1997 Dec.
5. Sutter B, Arthur A, Friehs G, Chadduck J, Clarici G, Pendl G: Treatment options and time course for intramedullary spinal cord metastases: report of 3 cases and review of the literature. *Neurosurgical Focus* 4(3), Article 3, 1998 May.
6. Bavbek M, Polin R, Kwan A, Arthur AS, Kassell NF, Lee KS: Monoclonal antibodies against ICAM-1 and CD18 attenuate cerebral vasospasm after experimental subarachnoid hemorrhage in rabbits. *Stroke* 29:1930-1936, 1998.
7. Wanebo JE, Arthur AS, Louis HG, West K, Kassell NF, Lee KS, Helm GA: Systemic administration of the endothelin A receptor antagonist TBC 11251 attenuates cerebral vasospasm after experimental subarachnoid hemorrhage: dose study and review of endothelin-based therapies in the literature on cerebral vasospasm. *Neurosurgery*, 43(6): 1409-1418, 1998 Dec.
8. Barbosa MD, Arthur AS, Louis HG, Polin RS, MacDonald T, Kassell NF: The novel 5-lipoxygenase inhibitor ABT-761 attenuates cerebral vasospasm in a rabbit model of subarachnoid hemorrhage. *Neurosurgery*, 49(5): 1205-1213, 2001 Nov.
9. Arthur AS, Whitehead WE, Kestle JRW: Duration of antibiotic therapy for the treatment of shunt infection: a surgeon and patient survey. *Pediatric Neurosurgery*, 36(5): 256-259, 2002 Jun.
10. Rao G, Arthur AS, Apfelbaum RI: A circumferential fracture of the skull base causing craniocervical dislocation: case report. *Journal of Neurosurgery: Spine*, 97(1 Suppl): 118-122, 2002 Jul.
11. Ragel BR, Arthur AS, Townsend J, Couldwell WT: Third ventricular tanycytic ependymoma: case report and review of the literature. *Journal of Neuro-oncology*, 71(2): 189-193, 2005 Jan.

12. Arthur AS, Wilson SA, Dixit S, Barr JD: Hydrogel coated coils for the treatment of cerebral aneurysms: preliminary results. *Neurosurgical Focus*, 18(2): 1-9, 2005 Feb.
13. Yorgason JG, Arthur AS, Orlandi RR, Apfelbaum RI: Endoscopic decompression of tension pneumosella following transsphenoidal pituitary tumor resection. *Pituitary*, 7(3): 171-177, 2005 Jul.
14. Brott TG, Hobson RW 2nd, Howard G, Roubin GS, Clark WM, Brooks W, Mackey A, Hill MD, Leimgruber PP, Sheffet AJ, Howard VJ, Moore WS, Voeks JH, Hopkins LN, Cutlip DE, Cohen DJ, Popma JJ, Ferguson RD, Cohen SN, Blackshear JL, Silver FL, Mohr JP, Lal BK, Meschia JF; CREST Investigators: Stenting versus endarterectomy for treatment of carotid-artery stenosis. *N Engl J Med*. 2010 Jul 1;363(1):11-23.
15. Killer M, Arthur AS, Barr JD, Richling B, Cruise G: Histomorphology of Thrombus Organization, Neointima Formation, and Foreign Body Response in Retrieved Human Aneurysms Treated with HydroCoil Devices. *Journal of Biomedical Materials Research*, 94B(2): 486-492, 2010 Jun.
16. Mantese VA, Timaran CH, Chiu D, Begg RJ, Brott TG; CREST Investigators: The Carotid Revascularization Endarterectomy versus Stenting Trial (CREST): stenting versus carotid endarterectomy for carotid disease. *Stroke*. 2010 Oct;41(10 Suppl):S31-4.
17. Silver FL, Mackey A, Clark WM, Brooks W, Timaran CH, Chiu D, Goldstein LB, Meschia JF, Ferguson RD, Moore WS, Howard G, Brott TG; CREST Investigators: Safety of stenting and endarterectomy by symptomatic status in the Carotid Revascularization Endarterectomy Versus Stenting Trial (CREST). *Stroke*. 2011 Mar;42(3):675-80.
18. Howard VJ, Lutsep HL, Mackey A, Demaerschalk BM, Sam AD 2nd, Gonzales NR, Sheffet AJ, Voeks JH, Meschia JF, Brott TG; CREST investigators: Influence of sex on outcomes of stenting versus endarterectomy: a subgroup analysis of the Carotid Revascularization Endarterectomy versus Stenting Trial (CREST). *Lancet Neurol*. 2011 Jun;10(6):530-7.
19. Blackshear JL, Cutlip DE, Roubin GS, Hill MD, Leimgruber PP, Begg RJ, Cohen DJ, Eidt JF, Narins CR, Prineas RJ, Glasser SP, Voeks JH, Brott TG; CREST Investigators: Myocardial infarction after carotid stenting and endarterectomy: results from the carotid revascularization endarterectomy versus stenting trial. *Circulation*. 2011 Jun 7;123(22):2571-8.
20. Cohen DJ, Stolker JM, Wang K, Magnuson EA, Clark WM, Demaerschalk BM, Sam AD Jr, Elmore JR, Weaver FA, Aronow HD, Goldstein LB, Roubin GS, Howard G, Brott TG; CREST Investigators: Health-related quality of life after carotid stenting versus carotid endarterectomy: results from CREST (Carotid Revascularization Endarterectomy Versus Stenting Trial). *J Am Coll Cardiol*. 2011 Oct 4;58(15):1557-65.
21. Voeks JH, Howard G, Roubin GS, Malas MB, Cohen DJ, Sternbergh WC 3rd, Aronow HD, Eskandari MK, Sheffet AJ, Lal BK, Meschia JF, Brott TG; CREST Investigators: Age and outcomes after carotid stenting and endarterectomy: the carotid revascularization endarterectomy versus stenting trial. *Stroke*. 2011 Dec;42(12):3484-90.

22. Oliver AT, Sorensen M, Arthur AS: Endovascular treatment for acute paraplegia after epidural steroid injection in a patient with spinal dural arteriovenous malformation. *J Neurosurg Spine*, 2012, Jul 6.
23. Longbottom ME, Roberts JN, Tom M, Hughes SE, Howard VJ, Sheffet AJ, Meschia JF, Brott TG; CREST Investigators: Interventions to increase enrollment in a large multicenter phase 3 trial of carotid stenting vs. endarterectomy. *Int J Stroke*. 2012 Aug;7(6):447-53.
24. Vilain KR, Magnuson EA, Li H, Clark WM, Begg RJ, Sam AD 2nd, Sternbergh WC 3rd, Weaver FA, Gray WA, Voeks JH, Brott TG, Cohen DJ; CREST Investigators: Costs and cost-effectiveness of carotid stenting versus endarterectomy for patients at standard surgical risk: results from the Carotid Revascularization Endarterectomy Versus Stenting Trial (CREST). *Stroke*. 2012 Sep;43(9):2408-16.
25. Lal BK, Beach KW, Roubin GS, Lutsep HL, Moore WS, Malas MB, Chiu D, Gonzales NR, Burke JL, Rinaldi M, Elmore JR, Weaver FA, Narins CR, Foster M, Hodgson KJ, Shepard AD, Meschia JF, Bergelin RO, Voeks JH, Howard G, Brott TG; CREST Investigators: Restenosis after carotid artery stenting and endarterectomy: a secondary analysis of CREST, a randomised controlled trial. *Lancet Neurol*. 2012 Sep;11(9):755-63.
26. Jones M, Twilla J, Hoit DA, Arthur AS: Prevention of Stent Thrombosis with Prasugrel in Two Clopidogrel Hypo-responsive Patients Undergoing Treatment of Cerebral Aneurysms with Pipeline Embolization Devices. *BMJ Case Report*, 2012 Oct. 26.
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**EDITORIALS**

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### **PATENTS**

A novel therapy for the prevention and treatment of cerebral vasospasm and ischemia.  
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