

**CURRICULUM VITAE OF ALEXANDER L. COON**  
The Johns Hopkins University School of Medicine



Alexander Lewis Coon, M.D.,

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## **DEMOGRAPHIC AND PERSONAL INFORMATION**

### **CURRENT APPOINTMENT**

2010 – Present Assistant Professor of Neurosurgery, Neurology, and Radiology and Radiological Science  
The Johns Hopkins University School of Medicine, Baltimore, Maryland

### **PERSONAL DATA**

#### **CLINICAL AND ADMINISTRATIVE OFFICE:**

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### **EDUCATION AND TRAINING**

#### **Undergraduate**

1998            B.S.E., Chemical Engineering, University of Kentucky, Lexington, KY

#### **Doctoral**

2003            M.D., Columbia University, College of Physicians and Surgeons, New York, NY

#### **Post-doctoral**

2003 – 2004    Intern, Surgery, The Johns Hopkins Hospital, Baltimore, MD  
2004 – 2007    Resident, Neurosurgery, The Johns Hopkins Hospital, Baltimore, MD  
2007 – 2009    Fellow, Endovascular Neurosurgery and Interventional Neuroradiology, The Johns Hopkins Hospital, Baltimore, MD  
2009 – 2010    Chief Resident and Assistant Chief of Service, Neurosurgery, The Johns Hopkins Hospital, Baltimore, MD

### **PROFESSIONAL EXPERIENCE**

2010 – Present Assistant Professor of Neurosurgery, Neurology, and Radiology and Radiological Sciences, The Johns Hopkins University School of Medicine, Baltimore, MD  
2010 – 2017    Attending Physician, The Johns Hopkins Hospital and the Johns Hopkins Bayview Medical Center

**PUBLICATIONS**

*Hirsch Index ("H- index"):* **23** calculated by Google Scholar

**Original Research [OR] \*Corresponding Author, Mentees are underlined**

1. Coon AL, Wallace DR, \*Mactutus CF, Booze RM. L-type Calcium channels in the hippocampus and cerebellum of Alzheimer's disease brain tissue. *Neurobiol Aging.* 1999; 20 (6): 597-603.
2. Ivanova S, Batliwalla F, Borovikova L, Yang H, Mocco J, Kiss S, Huang J, Mack W, Coon AL, \*Bernik T, Haywood-Watson II R, Al-Abed Y, Eaton J, Gregersen P, Shohami E, Connolly E, Tracey K. Neuroprotection in cerebral ischemia by neutralization of 3-aminopropanal. *Proc Nat Acad Sci.* 2002; 99 (8): 5579-5584.
3. \*Mack WJ, King RG, Hoh DJ, Coon AL, Ducruet AF, Huang J, Mocco JD, Winfree CJ, D'Ambrosio AL, Nair MN, Sciacca RR, Connolly, Jr ES. An Improved Neurological Examination for Use in Non-Human Primate Studies of Focal Reperfused Cerebral Ischemia. *Neurol Res.* 2003; 25(3): 280-284.
4. Mack WJ, Komotar RJ, Mocco J, Coon AL, Hoh DJ, King RG, Ducruet AF, Ransom ER, Oppermann M, DeLaPaz R, \*Connolly, Jr ES. Serial magnetic resonance imaging in experimental primate stroke: validation of MRI for pre-clinical cerebroprotective trials. *Neurol Res.* 2003; 25(8): 846-852.
5. \*Coon AL, Colby GP, Mack WJ, Feng L, Meyers P, Connolly ES. Treatment of mechanically-induced vasospasm of the carotid artery in a primate using intra-arterial verapamil: a technical case report. *BMC Cardiovasc Disord.* 2004 Jul 21;4(1):11.
6. McGirt MJ, Woodworth GF, Coon AL, Frazier JM, Amundson E, Garonzik I, Olivi A, \*Weingart JD. Independent predictors of morbidity after image-guided stereotactic brain biopsy: a risk assessment of 270 cases. *J Neurosurg.* 2005;102(5): 897-901.
7. Colby GP, Coon AL, Connolly ES, \*Ambron RT. Activation of c-Jun and ATF-2 in primate motor cranial nerve nuclei is not associated with apoptosis following axotomy. *Exp Neurol.* 2005 Jul;194(1):57-65.
8. Lynch JR, Wang H, McGirt MJ, Floyd J, Friedman AH, Coon AL, Blessing R, Alexander MJ, Graffagnino C, Warner DS, \*Laskowitz DT. Simvastatin reduces vasospasm after aneurysmal subarachnoid hemorrhage: results of a pilot randomized clinical trial. *Stroke.* 2005;36(9): 2024-6.
9. McGirt MJ, Woodworth G, Coon AL, Thomas G, Williams MA, \*Rigamonti D. Diagnosis, treatment, and analysis of long-term outcomes in idiopathic normal-pressure hydrocephalus. *Neurosurgery.* 2005; 57(4): 699-705; discussion 699-705.
10. McGirt MJ, Perler BA, Brooke BS, Woodworth GF, Coon AL, Jain S, Buck D, Roseborough GS, Tamargo RJ, Heller J, Freischlag JA, \*Williams GM. 3-Hydroxy-3-methylglutaryl coenzyme A reductase inhibitors reduce the risk of perioperative stroke and mortality after carotid endarterectomy. *J Vasc Surg.* 2005; 42(5): 829-36.
11. \*Coon AL, Arias-Mendoza F, Colby GP, Cruz-Lobo J, Mocco J, Mack WJ, Komotar RJ, Brown TR, Connolly ES. Correlation of cerebral metabolites with functional outcome in experimental primate stroke using in vivo 1H-magnetic resonance spectroscopy. *AJNR Am J Neuroradiol.* 2006 May;27(5):1053-8.
12. \*McGirt MJ, Woodworth GF, Brooke BS, Coon AL, Jain S, Buck D, Huang J, Clatterbuck RE, Tamargo RJ, Perler BA. Hyperglycemia independently increases the risk of perioperative stroke, myocardial infarction, and death after carotid endarterectomy. *Neurosurgery.* 2006; 58(6):1066-1073.
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15. McGirt MJ, Woodworth G, **Coon AL**, Thomas G, Williams MA, Rigamonti D. Diagnosis, treatment, and analysis of long-term outcomes in idiopathic normal-pressure hydrocephalus. *Neurosurgery*. 2008; 62 Suppl 2: 670-677.
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18. Kretzer RM, **Coon AL**, Tamargo RJ. Walter E. Dandy's contributions to cerebrovascular neurosurgery. *J Neurosurg*. 2010;112(6): 1182-1191.
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21. Chaichana KL, **Coon AL**, Tamargo RJ, Huang J. Dural arteriovenous fistulas: epidemiology and clinical presentation. *Neurosurg Clin N Am*. 2012; 23(1): 7-13.
22. \***Coon AL**, Paul AR, Colby GP, Lin LM, Pradilla G, Huang J, Tamargo RJ. Comparison of tertiary-center aneurysm location frequencies in 400 consecutive cases: decreasing incidence of posterior communicating artery region aneurysms. *Surg Neurol Int*. 2011;2:152.
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27. Colby GP, Lin LM, Paul AR, Huang J, Tamargo RJ, \***Coon AL**. Cost comparison of endovascular treatment of anterior circulation aneurysms with the pipeline embolization device versus stent-assisted coiling. *Neurosurgery*. 2012 Nov;71(5):944-50.
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59. \*Lin LM, Colby GP, Iyer RR, Jiang B, Huang J, Tamargo RJ, **Coon AL**. Pentaxial access platform for ultra-distal intracranial delivery of a large-bore hyperflexible DIC (distal intracranial catheter): A technical note. *Interdisciplinary Neurosurgery: Advances Techniques and Case Management* 6. 2016. 29-34
60. Yang W, Porras JL, Garzon-Muvdi T, Xu R, Caplan JM, Hung AL, Braileanu M, Rong X, Colby GP, **Coon AL**, Tamargo RJ, \*Huang J. Management Outcome of Brainstem Arteriovenous Malformations (AVMs): The Role of Radiosurgery. *World Neurosurg*. 2016 Oct;94:64-72.
61. Yang W, Porras JL, Xu R, Garzon-Muvdi T, Caplan JM, Colby GP, **Coon AL**, Tamargo RJ, Huang J, \*Ahn ES. Effectiveness of Surgical Revascularization for Stroke Prevention in Pediatric Patients with Sickle Cell Disease and Moyamoya Syndrome. *Neurosurgery*. 2016 Aug;63 Suppl 1:178.
62. Yang W, Porras JL, Hung AL, Khalid S, Garzon-Muvdi T, Caplan JM, Braileanu M, Wang JY, Colby GP, **Coon AL**, Tamargo RJ, \*Huang J. Risk of hemorrhage in patients over age 60 with arteriovenous malformation (AVMs). *J Clin Neurosci*. 2016 Dec;34:121-127. DOI: 10.1016/j.jocn.2016.05.010.

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- patients with sickle cell disease and moyamoya syndrome. *J Neurosurg Pediatr.* 2017 Jul 7:1-7. doi: 10.3171/2017.1.PEDS16576.
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  88. Colby GP, Bender MT, Lin LM, Beaty NB, Caplan JM, Jiang B, Westbroek EM, Varjayand B, Campos JK, Huang J, Tamargo RJ, Coon AL. Declining complication rates with flow diversion of anterior circulation aneurysms after introduction of the Pipeline Flex: analysis of a single-institution series of 568 cases. *The Journal of Neurosurgery.* 2018 Jan 12:1-7. DOI: 10.3171/2017.7.JNS171289.
  89. Beaty NB, Campos JK, Lin LM, Colby GP, Bender MT, Xu R, Coon AL. Pipeline Flex Embolization of Flow-Related Aneurysms associated with Arteriovenous Malformations: A Case Report. *Intervent Neurol* 2018;7:164-170. doi: 10.1159/000484986
  90. Lin LM, Jiang B, Campos JK, Beaty NB, Bender MT, Tamargo RJ, Huang J, Colby GP, Coon AL. Abciximab (ReoPro) dosing strategy for the management of acute intra-procedural thromboembolic complications during Pipeline flow diversion treatment of intracranial aneurysms. *Interventional Neurology.* 2018 [In Press]

91. Lin LM, Jiang B, Bender MT, Westbroek EM, Campos JK, Tamargo RJ, Huang J, Coon AL, Colby GP. 47 Consecutive Cases of Pipeline Flex Flow Diversion Utilizing a Novel Large-Bore Intracranial Intermediate Catheter: Nuances and Institutional Experience with the Siphontrak. *Intervent Neurol.* 2018 [In Press]
92. Wolff A, Santiago GF, Belzberg M, Huggins C, Lim M, Weingart JD, Anderson WS, **Coon AL**, Huang J, Brem H, Gordon CR. Adult cranioplasty reconstruction with customized cranial implants: Preferred technique, timing, and biomaterials. *Journal of Craniofacial Surgery.* 2018 [In Press]
93. Bender MT, Colby GP, Jiang B, Lin LM, Campos JK, Xu R, Westbroek EM, Vo CD, Zarrin DZ, Caplan JM, Huang J, Tamargo RJ, Coon AL. Flow Diversion of Posterior Circulation Cerebral Aneurysms: A Single-Institution Series of 59 Cases. *Neurosurgery.* 2018 [In Press]
94. Bender MT, Colby GP, Lin LM, Beaty NB, Caplan JM, Jiang B, Campos JK, Vo CD, Zarrin DA, Huang J, Tamargo RJ, Coon AL. Single-stage flow diversion with adjunctive coiling for cerebral aneurysm: outcomes and technical considerations in 72 cases. *J Neurointerv Surg.* 2018 [Submitted]
95. Bender MT, Vo CD, Jiang B, Campos JK, Zarrin DA, Caplan JM, Westbroek EM, Xu R, Huang J, Tamargo RJ, Lin LM, Colby GC, Coon AL. Pipeline embolization for salvage treatment of previously-stented residual and recurrent cerebral aneurysms. *Intervent Neurol.* 2018 [Submitted]

#### **Book Chapters, Monographs [BC]**

1. Colby GP, Coon AL, \*Tamargo RJ. Surgical management of aneurysmal subarachnoid hemorrhage. *Neurosurg Clin N Am.* 2010 Apr;21(2):247-61.
2. Colby GP, Coon AL, Huang J, \*Tamargo RJ. Historical perspective of treatments of cranial arteriovenous malformations (AVMs) and dural arteriovenous fistulas (DAVs). *Neurosurg Clin N Am.* 2012 Jan;23(1):15-25.
4. Paul AR, Colby GP, Huang J, Tamargo RJ, \***Coon AL**. Selection of treatment modalities or observation of dural arteriovenous fistulas (DAVs). *Neurosurg Clin N Am.* 2012 Jan;23(1):77-85.
5. Colby GP, Paul AR, Ciceri EF, **Coon AL**. "Endovascular Management of Cranial Dural Arteriovenous Fistulas." In Schmidke and Sweet's Operative Neurosurgical Techniques: Indications, Methods, and Results, 6<sup>th</sup> Edition. Quinones-Hinojosa A, Editor (Elsevier Saunders. Philadelphia), 2012. pp 1079-1088.
6. Caplan JM, Colby GP, Coon AL, Huang J, \*Tamargo RJ. Managing subarachnoid hemorrhage in the neurocritical care unit. *Neurosurg Clin N Am.* 2013 Jul;24(3):321-37.
7. Witek A, Colby GP, Lin LM, Coon AL. "The Role of Pre-Operative Embolization for Meningiomas (Skull Base and Non-Skull Base)." In Controversies in Neuro-Oncology: Best Evidence Medicine for Brain Tumor Surgery. 1<sup>st</sup> Edition. Quinones-Hinojosa A and Raza S, Editors. (Thieme Medical Publishers, New York, NY). 2013. Section VII/29

#### **Letters, Correspondence [LT]**

1. Colby GP, Lin LM, \*Coon AL. Revisiting the risk of intraparenchymal hemorrhage following aneurysm treatment by flow diversion. *AJNR Am J Neuroradiol.* 2012. Aug;33(7):E107; author reply E108.

## **CLINICAL ACTIVITIES**

### **Certification:**

Medical, other state/government licensure

2010-present State of Maryland – D0070409

DEA Certification Number – *available upon request*

Boards, other specialty certification

2014 Certified, American Board of Neurological Surgery

2016 Subspecialty Certification in NeuroEndovascular Surgery, The Society of Neurological Surgeons  
Committee on Advanced Subspecialty Training (CAST)

### **Clinical (Service) Responsibilities:**

2010 – Present Attending Neurosurgeon, Johns Hopkins Hospital & Johns Hopkins Bayview Medical Center

### **Clinical Productivity**

	<u>RVUs</u>	<u>Call Days</u>
FY'2011	13,697	49 HAL
FY'2012	17,937	49 HAL
FY'2013	17,226	49 HAL
FY'2014	13,216	49 HAL
FY'2015	11,262	28 HAL, 90 BV Stroke
FY'2016	12,356	28 HAL, 180 BV Stroke
FY'2017	15,757	28 HAL, 180 BV Stroke

## EDUCATIONAL ACTIVITIES

### TEACHING

#### Classroom Instruction

2007-present Lecturer, Neurosurgery Cerebrovascular/Endovascular Conference: Weekly hour-long morning interactive case conference dedicated to cerebrovascular and endovascular neurosurgery for residents and medical students.

#### Clinical Instruction

2010-present Attending physician for Johns Hopkins Neurosurgery Residents teaching in clinics, operating room, and wards  
 2010-present Attending physician for Johns Hopkins medical students teaching in clinics, operating room, and wards

#### Clinical Case Proctoring

2011-present Device Proctor for Medtronic Pipeline Embolization Device (>150 cases), USA and International  
 2012-present Device Proctor for Stryker Surpass Flow Diversion Device (>80 cases), USA and International  
 2012-present Device Proctor for Microvention Flow-Redirection Intraluminal Device (FRED) (>30 cases), USA and International  
 2014-present Device Proctor for Sequent Woven Endobridge (WEB) Intrasaccular Device (> 20 cases), USA  
 2016-present Device Proctor for Medtronic ARTISSE Intrasaccular Device (Enrolling March 2016), USA

#### Workshops/Seminars

05/15/12 Pipeline Embolization Technique: 10 Steps to PED Success. Pipeline Fellows Course, Irvine, CA  
 05/12/14 The Pipeline Embolization Device at The Johns Hopkins Hospital: The Experience, Outcomes, and Lessons. Pipeline International Training (Covidien), Baltimore, MD  
 05/19/14 Exotic Flow Diversion Cases at Johns Hopkins. Pipeline Dinner Exchange Course, Pittsburgh, PA  
 03/12/15 The Evolution of Cerebral Aneurysm Treatment in the Flow Diversion Era. University of California Irvine Technologists In-service, Irvine, CA  
 01/28/16 The Surpass Flow Diverter Comes to Canada: Lessons from the Front Lines at Hopkins. Stryker Flow Diversion Bootcamp, Fremont, CA  
 08/14/17 Access, Getting Where You Want to Go. Stryker Neurovascular 26th Annual Fellows National Symposium. Fremont, CA. *14 Aug. 2017.*  
 08/26/17 Endovascular Management of Cerebrovascular Aneurysms. The Workshop on Management of Cerebrovascular Aneurysms. University Medical Center: Ho Chi Minh City. Vietnam. *26 Aug. 2017.*  
 09/11/17 The Surpass Training Course. Medanta Medicity, Gurgaon, India. *11 Sept. 2017.*

### MENTORING

#### Enfolded Endovascular Fellowship Trainees:

2010-2012 Geoffrey P. Colby M.D., Ph.D., currently the Director of Cerebrovascular Neurosurgery and Associate Professor of Neurosurgery and Radiology at the University of California, Los Angeles  
 2011-2013 Li-Mei Lin, M.D., currently Assistant Professor of Neurosurgery and Director of the Cerebrovascular/Endovascular Neurosurgery Research Program at the University of California, Irvine  
 2014-2015 Justin M. Caplan, M.D., currently an Assistant Professor of Neurosurgery at Johns Hopkins University School of Medicine, Baltimore, Maryland

- 2016-present Matthew T. Bender, M.D., currently a Neurosurgery Resident at Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2017-present Bowen Jiang, M.D., currently a Neurosurgery Resident at Johns Hopkins University School of Medicine, Baltimore, Maryland

**Post-Doctoral Advisees:**

- 2010-2012 Juan Gomez, M.D., Interventional Neuroradiology Fellow, Trained in Flow Diversion, currently practicing Neurointervention at Miami Baptist Hospital
- 2010-2013 Ryan Kretzer, M.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, currently practicing at Western Neurosurgery, LTD, Tucson, Arizona
- 2010-2013 Shaan Raza, M.D., Neurosurgery Resident, Johns Hopkins Hospital, currently Assistant Professor of Neurosurgery at University of Texas, MD Anderson Cancer Center, Houston, Texas
- 2010-2017 C. Rory Goodwin M.D., Ph.D., Neurosurgery Resident, currently Assistant Professor of Neurosurgery at Duke University, Durham, North Carolina
- 2013-2014 Neelesh Nundkumar, M.D., Endovascular Neurosurgery Fellow, currently practicing with Carolina Neurosurgery & Spine Associates, Greensboro, North Carolina
- 2013-present Bowen Jiang, M.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2014-present Erick M. Westbroek, M.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2014 (05-07) Ammar Al Kawi, M.D., Endovascular Fellow, currently practicing at King Faisal Specialty Hospital, Riyadh, Saudi Arabia
- 2015-present Risheng Xu M.D., Ph.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2015-present Daniel Lubelski, M.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2015-present Yike Jin M.D., Neurosurgery Resident, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2016-2017 Narlin B. Beaty, M.D., Endovascular Neurosurgery Fellow, currently practicing at Tallahassee Neurological Clinic, Tallahassee, Florida
- 2016-present Jessica K. Campos, M.D., Post-doctoral Research Fellow, Department of Neurosurgery, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2017-present Nancy Abu-Bonsrah, M.D., Neurosurgery Resident, Department of Neurosurgery, Johns Hopkins University School of Medicine, Baltimore, Maryland

**Pre-Doctoral Advisees:**

- 2010-2011 Alexandra Paul, M.D, Medical Student, Johns Hopkins University, currently Neurosurgery Housestaff at Albany, New York
- 2014-present Tom Monarch, Undergraduate student, University of Louisville. Research on flow diversion of cerebral aneurysms. Currently an undergraduate at University of Louisville, Kentucky with plans to attend law school in the Fall 2018.
- 2015-present Haley Wendt, B.S., Undergraduate student, Johns Hopkins University. Research on relationship of aneurysm size to subarachnoid hemorrhage, Currently a Research Fellow Johns Hopkins Hospital with plans to attend medical school in the Fall of 2018.
- 2016-present Bejan Varjavand, Undergraduate student, Johns Hopkins University. Research on Using Flow Diversion for delayed treatment of subarachnoid hemorrhage
- 2017-present Chau D. Vo, B.A., Medical student, Johns Hopkins University School of Medicine, Summer Research Fellowship (2017) on using implanting flow diverting devices within indwelling stents

	for recurrent cerebral aneurysms and internal carotid artery tortuosity as a predictor of procedural complexity and clinical outcomes in mechanical thrombectomies
2017-present	David A. Zarrin, B.S., Post-baccalaureate student at Johns Hopkins University. Student researcher in group since April 2017

## RESEARCH & ORGANIZATIONAL ACTIVITIES

### INSTITUTIONAL ADMINISTRATIVE APPOINTMENTS

2010-present	Director of Endovascular Neurosurgery, The Johns Hopkins Hospital
2010-present	Director of Endovascular Neurosurgery, The Johns Hopkins Bayview Medical Center
2010-present	Director of Endovascular Neurosurgery Fellowship Training Program, The Johns Hopkins University School of Medicine

### EDITORIAL ACTIVITIES

#### Journal peer review activities

2014-present	<i>World Neurosurgery</i>
2010-present	<i>Journal of Neurointerventional Surgery</i>
2016-present	<i>The Neuroradiology Journal</i>
2016-present	<i>Journal of Neuroimaging</i>
2010-present	<i>Neurosurgery</i>

#### Advisory Committees, Review Groups/Study Sections

2016-present	Medical Advisory Board, InNeuroCo (Sunrise, FL)
2016-present	President, Board of Directors, Treat the Stroke Foundation, Inc. (Reisterstown, MD)

#### Professional Societies:

2010-present	Senior Member, Society of NeuroInterventional Surgery (SNIS)
2010-present	Active Member, Congress of Neurological Surgeons (CNS)
2010-present	Active Member, American Association of Neurological Surgeons (AANS)
2010-present	Medical Associate Member, European Society of Minimally Invasive Neurological Therapy (ESMINT)
2010-present	Member, American Society of Neuroradiology (ASNR)
2010-present	Active Member, Joint Cerebrovascular Section of the AANS/CNS
2010-present	Active Member, American Association of Neurological Surgeons (AANS)

#### Consultantships:

2011-present	Consultant, Medtronic Neurovascular (Irvine, California, USA)
2012-present	Consultant, Stryker Neurovascular (Fremont, California, USA)
2012-present	Consultant, MicroVention-Terumo (Tustin, California, USA)
2017-present	Consultant, InNeuroCo (Sunrise, Florida, USA)

## RECOGNITION

### AWARDS, HONORS

- 1994      *The Fluor Foundation Scholarship*. Scott High School, Taylor Mill, KY
- 1994      Salutatorian, Scott High School, Taylor Mill, KY
- 1994      Otis A. Singletary Scholarship, The University of Kentucky, Lexington, KY
- 1994      The University of Kentucky's Presidential Scholarship, The University of Kentucky, Lexington, KY
- 1996      Howard Hughes Medical Institute Undergraduate Research Fellowship with Dr. R. M. Booze, Department of Anatomy and Neurobiology, The University of Kentucky, Lexington, KY
- 1996      Kentucky Academy of Sciences Undergraduate Research Award, The University of Kentucky, Lexington, KY
- 1998      *Summa Cum Laude*, The University of Kentucky, Lexington, KY
- 1998      Phi Beta Kappa Honor Society, The University of Kentucky, Lexington, KY
- 1999      NIH Summer Research Fellowship with Sander Connolly Jr. M.D., Department of Neurosurgery, Columbia University, New York, NY
- 2001      Doris Duke Foundation Medical Student Research Fellowship with Sander Connolly Jr. M.D., Department of Neurosurgery, Columbia University, New York, NY
- 2002      Alpha Omega Alpha National Medical Honor Society, College of Physicians and Surgeons, Columbia University, New York, NY
- 2003      NIH Research Fellowship with Dr. Richard T. Ambron, Department of Anatomy and Cell Biology, Columbia University, New York, NY
- 2009      Neurosurgery Chairman's Award for Excellence in Teaching, Department of Neurological Surgery, Johns Hopkins University, Baltimore, MD
- 2009      American College of Surgeons Recognition for Excellence in Resident Training, Department of Neurological Surgery, Johns Hopkins University, Baltimore, MD
- 2012      Richard J. Otenasek Faculty Teaching Award, Department of Neurological Surgery, Johns Hopkins University, Baltimore, MD
- 2017-18    Healthgrades Recognized Doctor: Healthgrades Honor Roll.
- 2017-18    "America's Top Surgeons" in Neurosurgery. Consumers' Research Council of America. Thirteenth and Fourteenth Edition.

## OTHER PROFESSIONAL ACCOMPLISHMENTS

### INVITED TALKS

#### JHMI/Regional

- 06/27/02 Persistent Activation of c-Jun in Primate Axotomy: A Neurosurgical Model of Nerve Injury. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD.
- 03/17/05 Carotid Duplex Ultrasonography for Stenosis Assessment in Carotid Endarterectomy. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 02/17/05 Acute Subdural Hematoma Evacuation in the Chronically Anticoagulated Patient. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 06/16/05 Treatment of Cerebral Aneurysms with Muslin (Cotton) Wrapping: Indications, Outcomes, and Complications. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 11/17/05 Outcome Prognostication Following Acute Subdural Hematoma Evacuation: Introduction of the JASH Score. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 01/19/06 Outcome Prognostication in Stroke Using Magnetic Resonance Spectroscopy: Further Evidence through Primate Studies Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 04/06/06 Acute Mountain Sickness and High-Altitude Cerebral Edema: Knowledge for the Neurosurgeon/Mountaineer. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 02/22/07 Contralateral Approaches to Cerebral Aneurysms. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 05/08/08 Beginnings in Endovascular Neurosurgery: From Groinology to Denali. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 10/07/11 Endovascular Neurosurgery at Johns Hopkins: Changing the Field of Aneurysm Treatment. Suburban Hospital Neuroscience Update, Bethesda, MD
- 12/01/11 The Pipeline Embolization Device: Initial Experiences at Johns Hopkins. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 08/16/12 The Microsurgical Treatment of Cerebral Aneurysms with Cotton Wrapping: Indications, Outcomes, and Complications. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 03/25/13 Changing Paradigms in Aneurysm Treatment: At the Forefront at Johns Hopkins. Neuroscience Nursing In-Service, Johns Hopkins Bayview Medical Center, Baltimore, MD
- 07/25/13 Introduction to the Internal Carotid Artery: An Attending Lecture Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 09/26/13 Beyond the Pipeline Device: Multicenter Clinical Trials in Flow Diversion at Johns Hopkins Neurosurgery. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 11/01/13 The Evolution of Cerebral Aneurysm Treatment at Johns Hopkins Medicine. Suburban Hospital Update in Neurosurgery, Bethesda, MD
- 03/27/14 Get to Know an Artery: The Posterior Cerebral Artery, An Attending Lecture Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 08/24/14 Introduction to Dural Arteriovenous Fistulas: A Grand Rounds Review. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 02/12/15 Evolution of Flow Diversion at Johns Hopkins: Introduction to the Surpass Flow Diverter. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD

- 11/19/15 Access Challenges in Neuroendovascular Surgery: The Ongoing (R)Evolution. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD
- 03/16/16 The Flow Diverter Revolution at Johns Hopkins: From the Pipeline to the Surpass and Beyond. Johns Hopkins Neurointensive Care Symposium 2016, Baltimore, MD
- 05/11/17 Intra-Saccular Flow Disruption for the Treatment of Wide-Necked Bifurcation Aneurysms. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD. *11 May 2017.*
- 10/18/17 Introduction to Cerebrovascular Neurosurgery. Neurosurgery Interest Group, Johns Hopkins University School of Medicine, Baltimore, MD. *18 Oct. 2017.*
- 07/27/17 Flow Diversion Maximus: Case Experiences Gained at Johns Hopkins Neurosurgery. Department of Neurosurgery Grand Rounds, Johns Hopkins University, Baltimore, MD. *27 July 2017.*

### National

- 1996 The Calcium Homeostasis Neurotoxicity Hypothesis: Possible Evidence Through L-type Calcium Channel Density in Hippocampal Subregions. Molecular and Cell Biology Division, Kentucky Academy of Sciences Meeting
- 11/12/00 Pediatric Brain Tumors: A High-Yield Review of the Differential. Noon Teaching Conference, Department of Pediatrics, Monmouth Medical Center, Long Branch, NJ
- 04/12/04 Ventriculoperitoneal Shunting for Idiopathic Normal Pressure Hydrocephalus: Predictors of Treatment Response and Analysis of Long-Term Outcomes. Congress of Neurological Surgeons Annual Meeting, San Francisco, CA
- 04/14/05 Phenytoin therapy predicts improved functional outcome after acute subdural hematoma evacuation. American Association of Neurological Surgeons Annual Meeting – New Orleans, LA
- 10/10/05 Chronic anticoagulation with warfarin is associated with decreased functional outcome and increased length of stay following craniotomy for acute subdural hematoma. Congress of Neurological Surgeons Meeting, Boston, MA
- 10/11/05 Outcomes Following Craniotomy for Acute Subdural Hematoma Evacuation in Children: A Pediatric Trauma Center Experience. Congress of Neurological Surgeons Meeting, Boston, MA
- 03/28/11 Comparison of tertiary-center aneurysm location frequencies in 200 consecutive cases: Where did all the Pcom aneurysms go? 64<sup>th</sup> Neurosurgical Society of America Meeting, Big Island, HI
- 06/13/12 Initial Procedural Outcomes in 35 Consecutive Pipeline Aneurysm Cases: A Single-Center Experience. 65<sup>th</sup> Neurosurgical Society of America Meeting, Deer Valley, Park City, UT
- 07/27/12 Flow Diversion: This is going to be bigger than you think. Microvention NeuroNext, Tustin, CA. *July 27.*
- 02/27/14 Pearls and Pitfalls of Flow Diverter Technology: Insights from the Johns Hopkins Experience in >200 Cases. Pipeline Dinner Lecture, Sacramento, CA. *27 July 2014.*
- 06/11/14 Treatment of ICA Aneurysms Less than 10 mm Using the Pipeline Embolization Device: Experience in 44 Consecutive Cases. 66<sup>th</sup> Neurosurgical Society of America Meeting, Sea Island, GA
- 07/30/14 Initial Experiences with the FRED Flow Diverter at Johns Hopkins University. FRED Investigators Meeting, Colorado Springs, CO
- 10/18/14 Update on the FRED Pivotal Trial: Where we are now and case examples. 2014 Congress of Neurological Surgeons Annual Meeting, Boston, MA
- 01/24/15 Intraluminal Flow Diverters in 2015: The Future is Now. Cedars Sinai Update on Neurosurgery, Casa Del Mar Hotel, Santa Monica, CA

- 03/12/15 The Flow Diverter Revolution at Johns Hopkins: From the Pipeline to the Surpass and Beyond. University of California Irvine, Neurosurgery Grand Rounds, Irvine, CA
- 04/07/15 Initial Experiences Using an Intrasaccular Flow Disruption Device. 68<sup>th</sup> Neurosurgical Society of America Meeting, St. Newport Coast, CA
- 10/26/15 Access Challenges in NeuroEndovascular Surgery: The Ongoing (R)evolution. Stryker Neurovascular NeuroNext Symposium 2015, Santa Monica, CA
- 11/07/15 The Flow Diverter Revolution at Johns Hopkins: From the Pipeline to the Surpass and Beyond. Stryker Neurovascular Western Users' Group Meeting, Las Vegas, NV
- 01/27/16 Initial Clinical Experiences Using the AXS Catalyst 5: Cases from the Johns Hopkins Hospital. Stryker Neurovascular NSM 2016, Dana Point, CA
- 02/15/16 Access is The Key: Experiences Using the AXS Catalyst 5/6. AANS/CNS Joint Cerebrovascular Section 2016 Annual Meeting. Los Angeles, CA.
- 02/16/16 The ACom WEB: Experiences from the WEB-IT Study. WEB-IT Study Investigators' Meeting, Los Angeles, CA
- 07/27/16 Trackability Redefined: Clinical Experiences Using the Catalyst 5 Distal Access Catheter. Society of Neurointerventional Surgery National Meeting Lunch Symposium, Boston, MA
- 09/12/16 The Evolution of Complex Access Techniques for Neurointervention. Stryker Neurovascular NeuroNext Symposium 2016. San Jose, CA
- 08/14/17 Access, Getting Where You Want to Go. Stryker Neurovascular 26th Annual Fellows National Symposium. Fremont, CA. *14 Aug. 2017.*
- 11/18/16 Access Redefined: Clinical Experiences Using the Infinity LS and Catalyst Distal Access Catheters. Society of Vascular and Interventional Neurology National Meeting, Brooklyn, NY
- 11/27/17 The Ever-Expanding Role of Endovascular Aneurysm Surgery. Keynote Speaker. Mayo Clinic. Neuroscience-Neurosurgery Lecture Series. Jacksonville, FL. *27 Nov. 2017.*
- 01/23/18 Off-label Use of Flow Diverters in the Treatment of Challenging Cerebral Aneurysms: Flow Diverters for Distal Circulation Aneurysms. AANS/CNS Joint Cerebrovascular Section 2018 Annual Meeting. Los Angeles, CA. *23 Jan. 2018.*
- 01/31/18 The Ever - expanding Role of Endovascular Cerebral Aneurysm Surgery. Keynote speaker. Department of Neurosurgery Grand Rounds, University of Cincinnati, Ohio. *31 Jan. 2018.*
- 05/18/18 *The Evolution of Cerebral Aneurysm Treatment: Experiences From the Johns Hopkins Hospital. Tallahassee Neurological Clinic. Planned 18 May 2018*

### International

- 09/05/12 The Pipeline Embolization Device at the Johns Hopkins Hospital: The Experience, Outcomes, and Lessons. European Pipeline Users Meeting, Nice, France
- 06/11/14 Endovascular Management of MCA Aneurysms: We can...and We will. 67<sup>th</sup> Neurosurgical Society of America Meeting, St. Andrews, Canada.
- 06/23/14 Evolution of the Surpass Flow-Diverter Experience at Johns Hopkins: It's Time to Climb. Live Interventional Neuroradiology and Neurosurgery Course, Paris, France
- 09/03/14 The Pipeline Embolization Device: A Clinically-Proven Design. European Pipeline Users Meeting, Nice, France.
- 09/04/14 The SCENT Trial Update: Using Access to Achieve Success. European Society of Minimally Invasive Neurological Therapy Congress Meeting, Nice, France.
- 05/15/15 Evolution of the Flow Diverter Experience at the Johns Hopkins Hospital: From Pipeline to Surpass. TINMAN Conference 2016, Bangalore, India.

- 06/13/16 Flow Diversion and Flow Disruption for the Treatment of ACom Aneurysms. Bombay Neurosurgery Society Dinner, Mumbai, India.
- 06/22/16 The Use of Flow-Diverting Stents for The Treatment of ACom Region Aneurysms. 69<sup>th</sup> Neurosurgical Society of America Meeting, Wicklow, Ireland
- 09/08/16 The “FRED PED SHRED”: Superior PED delivery and resheathing using a more supportive 0.027” microcatheter. European Society of Minimally Invasive Neurological Therapy Congress Meeting, Nice, France.
- 09/29/16 The Surpass Flow Diverter Comes to India: Lessons from the Trenches in Baltimore. 13<sup>th</sup> Annual Indian Interventional Neuro Foundation Monsoon Meeting, Goa, India
- 09/29/16 Endovascular Management of Middle Cerebral Artery Aneurysms. 13<sup>th</sup> Annual Indian Interventional Neuro Foundation Monsoon Meeting, Goa, India.
- 09/29/16 The Recent Evolution of Distal Access Techniques for Neurointervention. 13<sup>th</sup> Annual Indian Interventional Neuro Foundation Monsoon Meeting, Goa, India
- 01/21/17 Flow Diversion: Beyond the ICA Bifurcation. Neurointervention Concept Elucidate (NICE) Conference 2017, Delhi, India. *21 Jan. 2017.*
- 01/21/17 Branch Vessels and Perforator Coverage in Flow Diversion: Friend or Foe? Neurointervention Concept Elucidate (NICE) Conference 2017, Delhi, India. *21 Jan. 2017.*
- 08/26/17 Endovascular Management of Cerebrovascular Aneurysms. The Workshop on Management of Cerebrovascular Aneurysms. University Medical Center: Ho Chi Minh City. Vietnam. *26 Aug. 2017.*
- 09/11/17 The Surpass Training Course. Medanta Medicity, Gurgaon, India. *11 Sept. 2017.*
- 12/15/17 Aneurysm coiling for beginners: Lessons learnt over the last 2 decades. Neurointervention Concept Elucidate (NICE) Conference 2018, Delhi, India. *15 Dec. 2017.*
- 12/16/17 Stent and “Me.” Session: Scaffolding with Stents in Complex Cases: Personal Choices and Challenges Faced. Neurointervention Concept Elucidate (NICE) Conference 2018, Delhi, India. *16 Dec. 2017.*
- 12/16/17 Flow diversion in complex aneurysms. Session: Achieving the Flow Diversion in Complex Aneurysms: The Flow Must Go On. Neurointervention Concept Elucidate (NICE) Conference 2018, Delhi, India. *16 Dec. 2017.*
- 12/16/17 LIVE Case from Medanta Neurovascular Center, Gurugram (Flow Diverter in complex aneurysm treatment); Proctor. Neurointervention Concept Elucidate (NICE) Conference 2018, Delhi, India. *16 Dec. 2017.*

#### **PEER-REVIEWED SCIENTIFIC ABSTRACTS**

1. **Coon AL**, Feng L, Mocco J, Colby GP, Meyers P, Connolly ES. Treatment of Mechanically-Induced Vasospasm of the Carotid Artery in a Non-Human Primate Using Intra-arterial Verapamil: A Technical Case Report. *Congress of Neurological Surgeons 52<sup>nd</sup> Annual Meeting*. 2002. Philadelphia, PA.
2. **Coon AL**, Arias-Mendoza F, Cruz-Lobo J, Berardocco F, Mocco J, Colby GP, King R, Mack WJ, Brown TR, Connolly ES. In Vivo Characterization of Experimental Primate Stroke Using 1H Magnetic Resonance Spectroscopy. *Congress of Neurological Surgeons 52<sup>nd</sup> Annual Meeting*. 2002. Philadelphia, PA.
3. **Coon AL**, D'Ambrosio A, Mocco J, Colby GP, King RG, Yorgason JG, Laufer I, Connolly ES. Rapid Achievement of Therapeutic Hypothermia in a Non-Human Primate Using Ambient Air Convective Surface Cooling. *Congress of Neurological Surgeons 52<sup>nd</sup> Annual Meeting*. 2002. Philadelphia, PA.
4. **Coon AL**, Colby GP, Sung YJ, Ambron RT, Connolly ES. Persistent Activation of c-Jun Is Not Associated with Apoptosis in Primate CN III Neurons Following Axotomy. *Society for Neuroscience 32<sup>nd</sup> Annual Meeting*. 2002. Orlando, FL.

5. **Coon AL**, Arias-Mendoza F, Mack WJ, King R, Colby GP, Cruz-Lobo J, Ziv E, Brown TR, Connolly ES. In Vivo Characterization of Experimental Primate Stroke Using <sup>31</sup>P-Magnetic Resonance Spectroscopy. *Joint Cerebrovascular Section Meeting of the AANS/CNS/ASITN*. 2003. Phoenix, AZ.
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99. Jiang B, Bender MT, Westbroek EM, Xu R, Campos JK, Lin LM, Zarrin DA, Vo CD, Tamargo RJ, Huang J, **Coon AL**. Procedural complexity independent of P2Y12 levels is a predictor of in-stent thrombosis in Pipeline flow diversion of cerebral aneurysms. *ANS/CNS Joint Cerebrovascular Section 2018 Annual Meeting*, Los Angeles, California. 23-24 Jan. 2018
100. Bender MT, Colby GP, Lin LM, Jiang B, Campos JK, Xu R, Westbroek EM, Zarrin DA, Caplan JM, Huang J, Tamargo RJ, **Coon AL**. Safety Assessment of Flow Diversion at the Basilar Apex. *ANS/CNS Joint Cerebrovascular Section 2018 Annual Meeting*, Los Angeles, California. 23-24 Jan. 2018
101. Bender MT, Jiang B, Campos JK, Xu R, Westbroek EM, Vo CD, Caplan JM, Huang J, Tamargo RJ, Lin LM, Colby GP, **Coon AL**. Jailing the MCA to Treat Uncoilable and Surgically Inaccessible ICA Termination-region Aneurysms. *ANS/CNS Joint Cerebrovascular Section 2018 Annual Meeting*, Los Angeles, California. 23-24 Jan. 2018

#### **ADDITIONAL INTERESTS AND ACTIVITIES:**

- Triathlons (Ironman x15 events), Marathoning
- Mountaineering (Denali 2008, Bona 2006, Rainier 2004)
- Hiking, Skiing, Basketball, Golf, Music (Piano and Trombone)
- Conversational Proficiency in Spanish