Dear Hanbery Members and Guest,

We are excited to welcome you to the 42nd Annual Meeting of the Stanford Hanbery Neurosurgical Society. As the co-chairmen of this year’s meeting, we are enthusiastic about the program and the chance to reconnect with all of you. With the help of our respective spouses, Cindy and Kari, to whom we’ve been wedded for a combined 27 years, we have put together a meeting that promises to be fun time both scientifically and for your families socially. The meeting is August 4-7, 2016 at the Carmel Valley Ranch in Carmel Valley California (www.carmelvalleyranch.com). Please visit their website as they have many activities and services that you may want to sign up for ahead of time.

The Hanbery Society Annual Scientific program provides activities to meet the participants’ identified education needs and to support their life-long learning towards a goal of improving neurosurgeon's competency skills. The Hanbery sustains this program that impacts the provision of health care in neurological surgery and related sciences by focusing on relevant curricula taught by our members and guest faculty in the neurosurgical and related neuroscience.

As you will see the topics have been broad, cutting-edge, and exciting, covering every aspect of the practice of our diverse membership throughout the country. The content of the activities is concerned with the prevention, diagnosis, treatment and rehabilitation of disorders that affect the entire nervous system including the spinal column, spinal cord, brain and peripheral nerves. The scope of activities involves the body of knowledge and skills generally recognized and accepted by the profession in the following subspecialties:

- Spine
- Tumor
- Pain
- Cerebrovascular
- Trauma
- Pediatrics
- General Neurosurgery
- Functional & Stereotactic

We look forward to seeing all of you. Should you have any questions or concerns, please contact either one of us at our numbers below. For details about the venue or help with special needs please contact our meeting coordinator at Carmel Valley Ranch, Megan Dobyns at (831) 626-2503 or by email at mdobyns@carmelvalleyranch.com.

Sincerely,

Robert L. Dodd, MD, PhD
Assistant Professor
Department of Neurosurgery & Division of Neuroradiology
Stanford University School of Medicine
300 Pasteur Dr., R207
Stanford, CA 94305-5327
Tel: 650-723-9717
Fax: 650-725-0530

Paul S. Jackson, MD, PhD
Chief of Neurosurgery
Palo Alto Medical Foundation
795 El Camino Real
Lee Building
Level 3
Palo Alto, CA 94301
Tel: 650-853-2919
Fax: 650-330-4316
Founding Members

Jan Belza, MD
Richard Britt, MD
Richard Brown, MD
Kenneth Burres, MD
Thomas Clancy, MD
Frances Conley, MD
DeWitt Gifford, MD
Michael Kendrick, MD
George Koenig, MD
William Lewis, MD
Ray Miller, MD
Denver Nelson, MD
Maynard Pont, MD
Donald Prolo, MD
John Runnels, MD
Gerald Silverberg MD
Thursday, August 4, 2016

Welcome Reception
Time: 6:00 pm
Location: Clubhouse Patio
Attire: Business Casual
Details: A childrens area is located on the adjacent Valley Lawn
Friday, August 5, 2016

Morning

Continental Breakfast Time: 7-9 am  
Location: Redwood Room  
Family seating in Oak Room B, overflow in Oak Courtyard

Scientific Program Time: 8:00 am  
Location: Oak Room A  
Attire: Business Casual

Guided Group Hike for Families Time: 10-11 am  
Location: TBD

Afternoon

Lunch Time: 12-2 pm  
Location: Redwood Room  
Family seating in Oak Room B, overflow in Oak Courtyard

Evening

Reception and Dinner  
All Members, Families and Guests are Welcome  
Time: 6:30 pm  
Location: River Ranch Lawn  
Attire: Cocktail/Evening  
Details: Music and dancing will accompany dinner.
Saturday, August 6, 2016

Morning

Continental Breakfast Time: 7-9 am
Location: Redwood Room
Family seating in Oak Room B, overflow in Oak Courtyard
Scientific Meeting: 8 am
Location: Oak Courtyard, Oak Room A
Attire: Business Casual
Location: Oak Room A

Afternoon

Lunch Time: 12-2 pm
Location: Redwood Room
Family seating in Oak Room B, overflow in Oak Courtyard

Evening

Hanbery Reception and Banquet
Stanford University Hanbery Members, Spouses
and Chief Residents are Welcome
Time: 6:30 pm
Reception: Harvest Landing
Dinner: Vintner Room
Attire: Formal/Black Tie
Details: Music and dancing will accompany dinner.
Sunday, August 7, 2016

Morning

Business Meeting: 8:00 am
All Hanbery Members are Welcome
Location: Redwood AB
Attire: Business Casual

Sunday Brunch: 9-11 am
All Members, Families and Guests are Welcome
Location: Redwood Terrace
Confirmed Attendees

William Lewis, MD (1964)
Joseph Belza, MD (1967)
Dewitt Gifford, MD (1968)
Ray Miller, MD (1969)
Donald Prolo, MD (1970)
Mark Anderson, MD (1981)
Marshal Rosario, MD (1982)
Lawrence Shuer, MD (1984)
Rod Sanden, MD (1985)
Russell Andrews, MD (1986)
Gary Steinberg, MD PhD (1987)
Mark Belza, MD (1990)
John Duncan, MD PhD (1992)
Allen Efron, MD (1994)
Kimberly Page, MD (1995)
Marc Vanfesty, MD (1996)
Gary Heit, MD, PhD (1998)
Carter Beck, MD (2000)
Odette Harris, MD, MPH (2003)
Adetokunbo Oyelese, MD, PhD (2004)
Robert Dodd, MD, PhD (2005)
Paul Jackson, MD, PhD (2005)
Stephen Ryu, MD (2006)
Arnett Klugh III, MD (2007)
Samuel Cheshier, MD, PhD (2008)
*Gordon Sakamoto, MD (2010)
Gordon Li, MD (2011)
Justin Santarelli, MD (2013)
Anand Veeravagu, MD (2015)
Maziyar Kalani, MD (2017)

Honorary: John R. Adler, MD
Honorary: Michael S.B. Edwards, MD

Guest: Michael Marks, MD
Guest: John Ratliff, MD
Guest: Jamshid Ghajar, MD
Members Unable to Attend

Responded (Will be missed this year)        Not Responded (Please reach out to me next year)

1971  George Koenig, MD                      1966  Richard Brown, MD
1972  John Runnels, MD                       1975  Frances Connelly, MD
1973  Gerald Silverberg, MD                  1976  Denver Nelson, MD
1989  Robert Lieberson, MD                   1977  Michael Kendrick, MD
1991  William Sheridan, MD                   1980  Dennis Becker, MD
1997  Victor Tse, MD, PhD                    1983  Todd Helle, MD
2001  Jeffrey Lee, MD                        1988  Bart Guthrie, MD
2002  Sivakumar Jaikumar, MD                 1993  Monte Weinberger, MD
2006  Jesse Babbitz, MD                      1999  Steven Chang, MD
2007  Michael Lim, MD                        2003  Jeffrey Dembner, MD
2008  Justin Massengale, MD                  2009  Lewis Hou, MD
2009  Jenny Zou, MD, PhD                    2010  Scott Berta, MD
2010  Chirag Patil, MD, M.S.E.               2010  Jesse Babbitz, MD
2011  Nandan Lad MD, PhD                    2011  Dennis Becker, MD
2012  Shih-Chun "David" Lin, MD, PhD         2012  Monte Weinberger, MD
2012  Kevin Chao, MD                        2014  Robert Lober, MD, PhD
2013  Ashley Grosvenor Tian, MD              2014  *Lucy Kalanithi, MD
2014  Robert Lober, MD, PhD                  2015  Allyson Alexander, MD, PhD
2014  *Lucy Kalanithi, MD                    2015  Omar Choudhri, MD
2015  Terry Burns, M.D, PhD                 2016  Achal Achol, MD
2016  Achal Achol, MD

Honorary    Cecil Chang, MD
John W. Hanbery Society
42nd Anniversary Annual Meeting
Scientific Program
Scientific Program

Friday August 5th, 2016 SCIENTIFIC SESSIONS DAY 1

Session I

Paul Jackson MD, PhD, FAANS “Current analysis of evidence supporting artificial disc; indications, contraindications, and problems,”
Chief of Neurosurgery,
Palo Alto Medical Foundation, Palo Alto, CA.

Kimberly Page, MD, FAANS “The use of lordotic versus convex grafts in cervical discectomy: Is foraminal decompression dependent,”
North Valley Neurosurgery, Redding, CA.

Adetokunbo Oyelese, MD, PhD, FAANS “The evolution of spinal navigation: assessment of the tools, accuracy, and radiation exposure,”
Assistant Professor, Brown University, Providence, RI.

Donald Prolo, MD, FAANS “Long term results of uninstrumented one- and two-level posterior lumbar interbody fusions with allogenic ilium- a twenty five year experience,” San Jose, CA (retired).


Gary Heit, MD, PhD, FAANS “AMCANI. Missions in Myanmar and Vietnam,”
Kaiser Permanente Redwood City Medical Center, Redwood City, CA (retired).

John Adler, MD, FAANS “Zap: My Next Act. The New Frontier of Neurosurgery,”
Professor, Stanford University, Stanford, CA (emeritus).
Friday August 5th, 2016 SCIENTIFIC SESSIONS DAY 1

Session II

Maziyar Kalani, MD “Value-based care and neurosurgery,” Chief Resident, Stanford University, Stanford, CA.

Mark Belza, MD, FAANS “Epidemiology and current treatment of SI joint pathology,” Bend Spine and Neurosurgery, Bend, OR.


Jam Ghajar MD, FAANS “Concussion Unpacked,” Professor, Stanford University, Stanford, CA.

Arnett Klugh, MD, FAANS “Reduction in CTE through design of a better NFL helmet,” Neurosurgeon in Chief, Balboa Naval Hospital, US Navy San Diego, CA.

Odette Harris, MD, MPH, FAANS “Gender influences in the outcome of traumatic brain injury: The estrogen effect,” Associate Professor, Stanford University, Stanford, CA.

Lawrence Shuer MD, FAANS “NeuroPACE RNS system and Visualase MRI-guided laser ablation, a new era in the surgical management of medically refractory seizures,” Professor, Stanford University, Stanford, CA.
Scientific Program

Saturday August 6th, 2016 SCIENTIFIC SESSIONS DAY 2

Session III

**John Ratliff, MD, FAANS** “Merit Based Incentive Payment System, MIPS and Your Practice: Five Things You Need to Know,” Associate Professor, Stanford University, Stanford, CA.

**Anand Veeravagu, MD** “Risk Calculators in Neurosurgery - Big Data and Advocacy,” Assistant Professor, Stanford University, Stanford, CA.

**Gordon Li, MD, FAANS** “The role of casein kinase 2 in primary brain tumors,” Assistant Professor, Stanford University, Stanford, CA.

**Samuel Cheshier, MD, PhD, FAANS** “The role of Notch-1 in the pathogenesis of medulloblastoma,” Assistant Professor, Stanford University, Stanford, CA.

**Allen Efron, MD, FAANS** “Evolution of neurosurgical treatment of vestibular schwannomas,” Kaiser Permanente Redwood City Medical Center, Redwood City, CA.

**John Duncan, MD, FAANS** “Microsurgical techniques in the management of highly vascular midline intracranial tumors; pearls from a case series,” Kaiser Permanente Redwood City Medical Center, Redwood City, CA.

**Robert Dodd, MD, PhD, FAANS** “Endovascular management of complications from endoscopic skull base surgery,” Assistant Professor, Stanford University, Stanford, CA.
Saturday August 6th, 2016 SCIENTIFIC SESSIONS DAY 2

Session VI

Gary Steinberg, MD, PhD, FAANS “Surgical resection of complex AVMs following stereotactic radiosurgery,” Professor and Chairman of Neurosurgery, Stanford University, Stanford, CA.

Michael Marks, MD “Complication rate of endovascular therapy with liquid embolic agents for complex AVMs,” Professor of Radiology, Stanford University, Stanford, CA.

Michael S.B. Edwards, MD, FAANS “Improved visualization of pediatric AVMs treated with microsurgery and radiosurgery with Feraheme contrast agent,” Chief of Pediatric Neurosurgery, Stanford University, Stanford, CA.

Mark Vanefsky, MD, FAANS “Microsurgical treatment of giant aneurysms in the era of flow diversion,” Chief of Neurosurgery, Kaiser Permanente Anaheim Medical Center, Anaheim, CA.

Justin Santarelli, MD, “Carotid endarterectomy versus carotid angioplasty and stenting in the real world post CREST II,” Assistant Professor of Neurosurgery, Neurology and Radiology, New York Medical College, Westchester Medical Center, Westchester, NY.

Robert Dodd, MD, PhD, FAANS “Targeted systems based quality improvements in door to revascularization times, improve outcomes in acute ischemic stroke,” Assistant Professor, Stanford University, Stanford, CA.

William Lewis, MD, FAANS “A bizarre progressive case of subclavian artery occlusion; review of pathophysiology and current treatment options,” Carmel, CA (retired).
Scientific Program Details for Session I

Title: “Current analysis of evidence supporting artificial disc; indications, contraindications, and problems.”

Speaker: Paul Jackson MD, PhD, FAANS, Chief of Neurosurgery, Palo Alto Medical Foundation, Palo Alto, CA.

Learning Objectives:

1. Attendees will learn the indications and technique for two level cervical arthroplasty.

2. Attendees will learn about the clinical trial data supporting two level arthroplasty.

3. Attendees will learn about current insurance coverage situation for cervical arthroplasty.
Title: “The use of lordotic versus convex grafts in cervical discectomy: Is foraminal decompression dependent.”

Speaker: Kimberly Page, MD, FAANS, North Valley Neurosurgery, Redding, CA.

Learning Objectives:

1. Attendees will learn how differences in graft contour affects foraminal decompression.

2. Attendees will learn how differences in graft height affects foraminal decompression.

3. Attendees will learn to understand the functional difference between lordotic and convex grafting products.
Title: “The evolution of spinal navigation: assessment of the tools, accuracy, and radiation exposure.”

Speaker: Adetokunbo Oyelese, MD, PhD, FAANS, Assistant Professor, Brown University, Providence, RI.

Learning Objectives:

1. Attendees will learn about the rational for computer assisted navigation for minimally invasive spinal surgery.

2. Attendees will learn about the different options for spinal navigation.

3. Attendees will learn about the current limitations and difference in radiation exposure of different systems for spinal navigation.
Title: “Long term results of uninstrumented one- and two-level posterior lumbar interbody fusions with allogenic ilium- a twenty five year experience.”

Speaker: Donald Prolo, MD, FAANS, San Jose, Ca, (retired)

Learning Objectives:

1. Attendees will learn structures of a compulsively documented, 25 year observational, consecutive case series, with demonstration of statistically high success rates, even among patients with diabetes and who smoke, low complication rates, using analyses by logistic regression and mixed effects linear regression techniques.

2. Attendees will demonstrate an increased knowledge of achieving lumbar fusion with allogeneic bone only and without instrumentation.

3. Attendees will learn measurement of clinical outcomes of lumbar fusion measured by an objective occupational/functional-clinical outcome scale and compared with an historical RCT average fusion rate 83%.
Scientific Program Details for Session I

Title: “Advancements in Optogenetics for the study of motor neurophysiology”

Speaker: Stephen Ryu, MD, FAANS, Palo Alto Medical Foundation, Palo Alto, CA.

Learning Objectives:

1) Attendees will learn the state of the art visualization in optogenetic research in primates with two-photon microscopy.

2) Attendees will learn to understand the utility of optogenetics in understanding the motor system.

3) Attendees will learn to understand how to map physically via CLARITY techniques the visualized optogenetic neurons.
Scientific Program Details for Session I

Title: “AMCANI. Missions in Myanmar and Vietnam.”

Speaker: Gary Heit, MD, PhD, FAANS, Kaiser Permanente Redwood City, (retired) Medical Center, Redwood City, CA,

Learning Objectives:

1. Attendees will learn the three leading causes of death in the Rahkine State Myanmar per the WHO.

2. Attendees will learn the percentage of GDP spent on healthcare prior to the emergence of democracy in Myanmar.

3. Attendees will learn what population size and geographic catchment area for which the only public institution, Hue University, provides MD, RN, PharmD, and DDS training for indigent care.
Title: “Zap: My Next Act. The New Frontier of Neurosurgery.”

Speaker: John Adler, MD, FAANS, Professor, Stanford University, Stanford, CA (emeritus).

Learning Objectives:

1. Attendees will learn the technical and practical limitations of existing radiosurgical devices.

2. Attendees become familiar with opportunities for a new generation of instruments which promise to break down barriers to radiosurgery.
Scientific Program Details for Session II

Title: “Value-based care and neurosurgery.”

Speaker: Maziyar Kalani, MD, Chief Resident, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn to understand value based models.
2. Attendees will learn to understand care pathways.
3. Attendees will learn how to cost accounting based on care pathways.
Title: “Epidemiology and current treatment of SI joint pathology.”

Speaker: Mark Belza, MD, FAANS, Bend Spine and Neurosurgery, Bend, OR.

Learning Objectives:

1. Attendees will learning history and physical exam of SI joint pathology.
2. Attendees will understanding the prevalence and incidence of SI joint pathology.
3. Attendees will learn about treatment options for SI joint pathology.
Scientific Program Details for Session II

Title: “Modern treatment for problems at the sacroiliac joint: A Montana Case Series.”

Speaker: Carter Beck, MD, FAANS, Montana Neurological Associates, Missoula, MT.

Learning Objectives:

1. Attendees will learn to understand clinical presentation of SI joint dysfunction.

2. Attendees will learn to understand the diagnostic approach and pathophysiology of SI joint problems.

3. Attendees will learn to understand treatment options available for SI joint pathologies.
Scientific Program Details for Session II

Title: “Concussion Unpacked.”

Speaker: Jamshid Ghajar MD, FAANS, Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn the current evidence for concussion diagnosis.
2. Attendees will learn about Ocular-vestibular impairments in concussion.
3. Attendees will learn about the role of exercise and sleep in recovery from concussion.
Title: “Reduction in CTE through design of a better NFL helmet.”

Speaker: Arnett Klugh, MD, FAANS, Neurosurgeon in Chief, Balboa Naval Hospital, US Navy San Diego, CA.

Learning Objectives:

1. Attendees will learn the current hypothesis regarding the patholophysiology of blast related injury.

2. Attendees will learn the about the current imaging modalities to evaluate traumatic brain injuries.

3. Attendees will learn about current investigation for minimizing accelartion and deceleration injury.
Scientific Program Details for Session II

Title: “Gender influences in the outcome of traumatic brain injury: The estrogen effect.”

Speaker: Odette Harris, MD, MPH, FAANS, Associate Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn to better understand the state of neurotrauma research in the management of the TBI patient.

2. Attendees will be provided a status review of recent NIH sponsored studies on TBI.

3. Attendees will learn to better understand the role of Gender in TBI.
Title: “NeuroPACE RNS system and Visualase MRI-guided laser ablation, a new era in the surgical management of medically refractory seizures.”

Speaker: Lawrence Shuer MD, FAANS, Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will become familiar with indications for Surgical interventions for Epilepsy.

2. Attendees will become familiar with Responsive Neurostimulation for Epilepsy.

3. Attendees will learn of minimally invasive techniques for ablation of epilepsy foci.
Title: “Merit Based Incentive Payment System, MIPS and Your Practice: Five Things You Need to Know.”

Speaker: John Ratliff MD, FAANS, Associate Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will be able to discuss changes in quality reporting included in MACRA and the MIPS program.

2. Attendees will appreciate the impact of MIPS on practice economics.

3. Attendees will understand the impact of episodes of care upon practice patterns and physician reimbursement.
Title: “Risk Calculators in Neurosurgery - Big Data and Advocacy.”

Speaker: Anand Veeravagu, MD, Assistant Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. To understand the relative risk of post-operative complications in spine patients as they vary with medical co-morbidities.

2. To understand the most likely complications to occur after lumbar fusion as stratified by age.

3. To understand the use of large longitudinal dataset to create risk calculators for specific neurosurgery populations.
Title: “The role of casein kinase 2 in primary brain tumors”

Speaker: Gordon Li, MD, FAANS, Associate Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. To understand the structure and function of casein kinase 2.

2. To understand the role of casein kinase 2 in primary brain tumors.

3. To understand the potential role of CK2 targeting as a treatment for GBM or medulloblastoma.
Title: “The role of Notch-1 in the pathogenesis of medulloblastoma.”

Speaker: Samuel Cheshier, MD, PhD, FAANS, Assistant Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn about the pathophysiology of metastatic medulloblastoma.

2. Attendees will learn about the barriers preventing effective treatment of metastatic medulloblastoma.

3. Attendees will learn how Notch 1 regulates metastasis and self-renewal of medulloblastoma.
Title: "Evolution of neurosurgical treatment of vestibular schwannomas."

Speaker: Allen Efron, MD, FAANS, Kaiser Permanente Redwood City Medical Center, Redwood City, CA.

Learning Objectives:

1. To review the incidence and the natural history of acoustic neuromas and how current understanding compares with the traditional expectations regarding these tumors.

2. To review treatment options in light of the current understanding of acoustic neuromas and offer a modern paradigm for treatment.

3. To discuss patient expectations and how this fuels treatment paradigm development in an age of patient driven surgical care.
Title: “Microsurgical techniques in the management of highly vascular midline intracranial tumors; pearls from a case series.”

Speaker: John Duncan, MD, FAANS, Kaiser Permanente Redwood City Medical Center, Redwood City, CA.

Learning Objectives:

1. Attendees will learn to understand physical and intellectual limitations for long complex surgical cases.

2. Attendees will learn to understand the role of the surgical team.

3. Attendees will learn to gain a better understanding of staged neurosurgical procedures.
Title: “Endovascular management of complications from endoscopic skull base surgery.”

Speaker: Robert Dodd, MD, PhD, FAANS, Assistant Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn the role for endovascular therapy in managing complications for skull base surgery.

2. Attendees will gain an understanding for what techniques are available and how they are employed for different complications.

3. Attendees will appreciate when consultation of a neurointerventionalist is appropriate, and the limitations of endovascular treatment.
Title: “Surgical resection of complex AVMs following stereotactic radiosurgery.”

Speaker: Gary Steinberg, MD, PhD, FAANS, Professor and Chairman of Neurosurgery, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn to understand how radiosurgery can be used as an adjunct to microsurgery.

2. Attendees will learn to describe the surgically important characteristics of AVMs treated with radiosurgery.

3. Attendees will learn to explain the intraoperative findings in AVMs that have been previously treated with radiosurgery.
Title: “Complication rate of endovascular therapy with liquid embolic agents for complex AVMs.”

Speaker: Michael Marks, MD, Professor of Radiology, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn the types of available liquid embolic agents used in the treatment of complex brain AVMs.

2. Attendees will learn the about results from prospective and retrospective studies documenting the use of liquid embolic agents to treat complex brain AVMs.

3. Attendees will learn the current strategy employed at Stanford for endovascular therapy of complex brain AMVs and the evidence to support that role.
Scientific Program Details for Session IV

Title: “Improved visualization of pediatric AVMs treated with microsurgery and radiosurgery with Feraheme contrast agent.”

Speaker: Michael S.B. Edwards, MD, FAANS, Vice Chair of Pediatric Neurosurgery, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn about the history, magnetic properties, and current indications for Feraheme as an MRI contrast agent.

2. Attendees will learn how the properties of Feraheme improve non-invasive imaging of pediatric AVMs.

3. Attendees will gain perspective of how this additional anatomic information guides treatment decisions for pediatric AVMs.
Title: “Microsurgical treatment of giant aneurysms in the era of flow diversion.”

Speaker: Mark Vanefsky, MD, FAANS, Chief of Neurosurgery, Kaiser Permanente Anaheim Medical Center, Anaheim, CA.

Learning Objectives:

1. Attendees will learn about aneurysm and patient specifics characteristics that continue to favor open microsurgical apporaches over flow diversion for giant aneurysms.

2. Attendees will review current evidence concerning morbidity and mortality of clip reconstrution and trapping with bypass grafting in the last two decades.

3. Attendees will learn to understand the utility of adjunction flow studies (BTO) in the decision making regarding open surgical versus endovascualr treatment for giant aneurysms.
Scientific Program Details for Session IV

Title: “Carotid endarterectomy versus carotid angioplasty and stenting in the real world post CREST II.”

Speaker: Justin Santarelli, MD, Assistant Professor of Neurosurgery, Neurology and Radiology, New York Medical College, Westchester Medical Center, Westchester, NY.

Learning Objectives:

1. Attendees will learn about significant improvements in medical treatment for stroke pathologies that have changed the indications for cervical carotid revascularization.

2. Attendees will learn about the findings and limitations of recent trials comparing CEA and CAS.

3. Attendees will learn about outgoing trials and remaining areas of investigation.
Scientific Program Details for Session IV

Title: “Targeted systems based quality improvements in door to revascularization times, improve outcomes in acute ischemic stroke.”

Speaker: Robert Dodd, MD, PhD, FAANS, Assistant Professor, Stanford University, Stanford, CA.

Learning Objectives:

1. Attendees will learn about the recent international, multicenter, randomized trials evaluating the role of endovascular therapy for acute ischemic stroke.

2. Attendees will learn about the significance of treatment time, efficacy of revascularization, and physiologic imaging affect treatment outcome.

3. Attendees will learn how a systems base quality improvement effort can affect outcome.
Title: “A bizarre progressive case of subclavian artery occlusion; review of pathophysiology and current treatment options.”

Speaker: William Lewis, MD, FAANS, Carmel, CA, (retired)

Learning Objectives:

1. Attendees will learn the relevant anatomy implicated in thoracic outlet syndrome.

2. Attendees will review the current understanding about the pathophysiologic ischemic mechanisms of thoracic outlet syndrome.

3. Attendees will learn about current treatment options for subclavian artery occlusion.
Past Meetings of the Society

1974, Organizational Meeting, San Francisco, CA
1975, 1st Annual Meeting, Carmel, CA, W. Lewis, MD
1976, 2nd Annual Meeting, Yosemite, CA, M. Pont, MD
1977, 3rd Annual Meeting, Carlsbad, CA, R. Brown, MD
1978, 4th Annual Meeting, Pebble Beach, CA, J. Belza, MD
1979, 5th Annual Meeting, San Francisco, CA, D. Gifford, MD
1980, 6th Annual Meeting, Bend, OR, R. Miller, MD
1981, 7th Annual Meeting, Strawberry, CA, D. Prolo, MD
1982, 8th Annual Meeting, San Diego, CA, G. Koenig, MD
1983, 9th Annual Meeting, Topeka, KS, J. Runnels, MD
1984, 10th Annual Meeting, Sonoma, CA, G. Silverberg, MD
1986, 12th Annual Meeting, Fallen Leaf Lake, CA, F. Conley, MD
1987, 13th Annual Meeting, Eureka, CA, D. Nelson, MD
1988, 14th Annual Meeting, Bend, OR, M. Kendrick, MD
1989, 15th Annual Meeting, Carmel, CA, W. Lewis, MD, and J. Belza, MD
1990, 16th Annual Meeting, Lake Tahoe, CA, G. Silverberg, MD, and W. Lewis, MD
1991, 17th Annual Meeting, Lake Arrowhead, CA, K. Burres, MD
1992, 18th Annual Meeting, Newport Beach, CA, M. Anderson, MD
1993, 19th Annual Meeting, Squaw Creek, CA, M. Rosario, MD
1994, 20th Annual Meeting, Grand Rapids, MI, T. Helle, MD
1995, 21st Annual Meeting, Lake Tahoe, CA, L. Shuer, MD
1996, 22nd Annual Meeting, Sacramento, CA, R. Sanden, MD
1997, 23rd Annual Meeting, Stanford, CA, R. Andrews, MD, and G. Steinberg, MD, PhD
1998, 24th Annual Meeting, Catalina Island, CA, G. Steinberg, MD, PhD
1999, 25th Annual Meeting, Monterey, CA, B. Guthrie, MD
2000, 26th Annual Meeting, Napa, CA, R. Lieberson, MD
2001, 27th Annual Meeting, Sunriver, OR, M. Belza, MD
2002, 28th Annual Meeting, Cabo San Lucas, Mexico, W. Sheridan, MD
2003, 29th Annual Meeting, Prouts Neck, Maine, J. Duncan III, MD, PhD
2004, 30th Annual Meeting, Stanford, CA, M. Weinberger, MD, and G. Steinberg, MD, PhD
2005, 31st Annual Meeting, Wailea, Maui, HI, A. Efron, MD
2006, 32nd Annual Meeting, Whistler, BC, K. Page, MD
2007, 33rd Annual Meeting, Monarch Beach, CA, M. A. Vanefsky, MD
2008, 34th Annual Meeting, Santa Barbara, CA, V. Tse, MD, PhD
2009, 35th Annual Meeting, Squaw Valley, CA, G. Heit, MD, PhD
2010, 36th Annual Meeting, San Diego, CA, C. Beswick, MD
2011, 37th Annual Meeting, Whitefish, Montana, C. Beck, MD
2012, 38th Annual Meeting, San Diego, CA, J. Lee MD
2013, 39th Annual Meeting, Carmel Valley, CA, J. Sivakumar, MD, O. Harris, MD
2014, 40th Annual Meeting, Stanford, CA, O. Harris MD
2015, 41st Annual Meeting, Cape Cod, MA, A. Oyelese, MD, PhD, FAANS
Residents in Training

Henry Jung, MD PGY-7 (Chief)
Maziyar A. Kalani, MD PGY-7 (Chief)
Stanley Hoang, MD PGY-7
Kai Miller, MD, PhD PGY-6
Linda Xu, MD PGY-6
Laura Prolo, MD, PhD PGY-5
Yi-Ren Chen, MD PGY-5
Adrienne Moraff, MD PGY-5
Kwong-Hon Chow, MD, PhD PGY-4
Aditya Iyer, MD PGY-4
Derek Yecies, MD PGY-4
Allen Ho, MD PGY-3
Arjun Pendharkar, MD PGY-3
Eric Sussman, MD PGY-3
Zachary Medress, MD PGY-2
Jonathon Parker, MD, PhD PGY-2
Jennifer Quon, MD PGY-2
Parastou Fatemi, MD PGY-1
Kevin Kumar, MD, PhD PGY-1
Michael Zhang, MD PGY-1