

## AANS/CNS Section on Cerebrovascular Surgery

Editor:

Robert M. Friedlander, MD, MA

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## Chairman's Message

### Aneurysm Trials Are One of the Section's Most Vital Issues

H. Hunt Batjer, MD, FACS



H. Hunt Batjer, MD, FACS

It is indeed my highest honor in neurosurgery to have been elected to the leadership of the AANS/CNS Section on Cerebrovascular Surgery. Interest in this particular subspecialty has certainly been the driving force behind all of my professional activities over the past 20 years and I am sure that this passion will continue to push and drive me until my career is over.

I was very active in the Section during the late '80s and withdrew somewhat to an arm's length relationship during a number of years during various roles within the Congress of Neurological Surgeons. Upon re-entry into Section affairs, I have been astounded at the breadth and depth of initiatives now being undertaken by the Section. To simply scratch the surface, I would list the Cerebrovascular Surgery Fellowship guidelines, guidelines for management of unruptured aneurysms, completed AVM guidelines and guidelines for the endovascular treatment of aneurysms, which are currently being written. The Section has had a major role in neurosurgical activities for CPT Coding, and the Executive Council continues to focus on communication and technology, as well as on numerous fellowships that are administered under the aegis of the Section.

On behalf of our membership, I would like to extend my deepest gratitude to the past leadership of the Section, as well as those key individuals in the leadership development aspect of the Section who represent our future. They have done an enormous job on behalf of our membership.

#### Planning Meetings

Past Chairman Issam Awad, MD, charged me over the past year and a half to develop a strategic

plan for the Section. This process resulted in a mission statement that has been finalized and is under review by our parent organizations. There also have been a number of important changes in the way our organization functions. Clearly, the Section used to function as a "Mom and Pop" operation. Due to the enormous change in scope, a more sophisticated organizational infrastructure was required.

Perhaps the most important new initiative undertaken by the Section is the independent meeting held in the winter. This meeting has taken off and has been absolutely spectacular in terms of attendance and quality. One aspect of this strategic planning process addressed the issue of our educational offerings presented each year at the CNS Annual Meeting, the AANS Annual Meeting and the Section meeting in the winter. There have been some concerns about ensuring that duplication does not occur and that we present a more formalized curriculum to our membership. In order to facilitate this, we have restructured our Education Committee. A formal Annual Meeting Committee now exists with the following components:

- Chair—This individual serves as the Meeting Chairman for the Section meeting.
- Scientific Program Chair—This individual serves as the Annual Meeting Chairman's assistant for the Section meeting and coordinates the AANS and CNS Section programs.
- AANS Cerebrovascular Meeting Liaison—This individual is charged with designing the scientific program at the AANS Annual Meeting with the supervision of the Scientific Program Chair, Annual Meeting Chair and Section Chair.
- CNS Cerebrovascular Meeting Liaison—This individual develops the Section program at the CNS Annual Meeting to be approved by the Scientific Chair, Annual Meeting Chair

*continued on page 10*

# Cerebrovascular Section Highlights at the 2001 CNS Annual Meeting in San Diego

## Saturday, September 29

8 AM–5 PM

### PC02 Treatment of Carotid Disease: Endovascular and Surgical Management Techniques

Course Directors: *Joshua B. Bederson, B. Gregory Thompson*  
Faculty: *Jay M. Findlay, Robert E. Harbaugh, Robert H. Rosenwasser, Robert J. Dempsey, Christopher M. Loftus, Gary Duckwiler*

8 AM–NOON

### PC06 Image-Guided Cranial Surgical Navigation

Course Directors: *Isabelle M. Germano, Kevin T. Foley*  
Faculty: *Richard D. Bucholz, Robert J. Maciunas, Christopher R. Mascott, Haring J.W. Nauta, Michael G. Nosko, Philip E. Stieg, William D. Tobler, David G. Walker, Ronald E. Warnick, Kim Herbert Manwaring*

### PC07 Posterior Circulation Aneurysms: Surgical and Endovascular Treatment

Course Director: *Thomas A. Kopitnik, Jr.*  
Faculty: *H. Hunt Batjer, Jonathan A. White, Phillip D. Purdy, Lee Pride, John McMahon, Robert E. Replegle, Jon A. Krumerman, Zeena Dorai, Debra L. Steele, Samuel Lee Barnett, Thomas G. Psarros*

1–5 PM

### PC11 Anterior Circulation Aneurysms

Course Directors: *Christopher S. Ogilvy, Fady T. Charbell*  
Faculty: *Jacques J. Morcos, Winfield S. Fisher, III, Robert H. Rosenwasser*

## Sunday, September 30

8 AM–5 PM

### PC19 Microvascular Reconstruction

Course Directors: *David W. Newell, Richard G. Ellenbogen*  
Faculty: *Neil A. Martin, Howard Yonas, Philip E. Stieg, G. Wayne Britz, Joel D. MacDonald, Jayashree Srinivasan*

### PC26 Functional Cerebral Mapping

Course Directors: *Nicholas M. Barbaro, Mitchel S. Berger*  
Faculty: *Michael M. Haglund, Carl Sartorius*

1–5 PM

### PC37 Intracranial Endoscopy

Course Directors: *David F. Jimenez, Paul A. Grabb*  
Faculty: *Adam I. Lewis, Wesley A. King, John G. Frazee, Lori A. McBride*

### PC41 Critical Care Acute Stroke/Neurovascular

Course Directors: *Joshua B. Bederson, John Paul Elliott, Alex B. Valadka*  
Faculty: *Robert E. Harbaugh, Aman B. Patel, Jay M. Findlay, Bob S. Carter, Jeffrey Saver*

## CNS Meeting Will Present Cutting-Edge Topics

By Robert M. Friedlander, MD, MA

Reinventing Neurosurgery, the theme of the 51<sup>st</sup> CNS Annual Meeting in San Diego, certainly captures the spirit of the cerebrovascular program. The meeting will take place at the beautiful San Diego Convention Center from September 29 to October 4, 2001. Important issues presently capturing much of the attention and controversy in our subspecialty will be presented and discussed.

On Sep. 29-30, the practical courses will include treatment of carotid disease, posterior circulation aneurysms, anterior circulation aneurysms, microvascular reconstruction and critical neurovascular care. These courses have invariably been rated extremely highly.

On Monday morning, the general scientific session will be kicked off on "3-D Presentation Day" by Albert Rhoton, MD, and Robert Spetzler, MD. The titles of their talks are "Arteries and Veins: Handcuffs or Roadmaps?" and "Black Holes of the Brain: How to Reach Challenging Areas of the Cerebrum," respectively. One of the highlights of this year's meeting will be the Charles Drake Lecture to be delivered by John M. Tew Jr., MD, on Monday afternoon. The title of Dr. Tew's talk is "Choosing a Skull Base Approach to Cerebrovascular Lesions."

At the Tuesday morning General Scientific Session, Robert Rosenwasser, MD, will provide his expert insight on the endovascular tools for the neurosurgeon. On Tuesday afternoon, as part of a special course, Hunt Batjer, MD, will deliver a talk titled "Catastrophic Operative Hemorrhage, How to Get Out of Trouble." This talk will surely be an insightful and candid presentation. Following that, David Newell, MD, will deliver a talk on "Bypass Surgery: Setting up a Lab and Developing Expertise."

During the Wednesday morning scientific session, titled "Reinventing Neurosurgery: The Future of Neurovascular Surgery," lecturers will address the present and future of our subspecialty. L.N. Hopkins, MD, will discuss his insights on endovascular neurosurgery while Marc Mayberg, MD, will describe the latest on carotid stents. Neil Martin, MD, will discuss the indications of bypass surgery, and H. Richard Winn, MD, will talk on angioplasty for vasospasm. During the afternoon, there will be a session focusing on neuroendovascular critical care. In keeping with the theme of the meeting, one of the highlights of the Congress will be a Special Lecture by M. Gazi Yasargil, MD, on "Neurovascular Innovation: Devices and Tools."

Eleven luncheon seminars will focus on the latest cerebrovascular techniques and controversies. Twenty very interesting presentations will be made during the open paper scientific session. One of the highlights of the open session will be the Galbraith Award. This year's recipient is John M. Abrahams, MD, who will talk on modified coils for adenovirus delivery.

As you can see, Reinventing Neurosurgery is an appropriate theme for this conference. Don't miss this impressive cohort of presentations.

*Robert M. Friedlander, MD, MA, is Editor of Cerebrovascular News.*

## Monday, October 1

### General Scientific Session I

7:30–11:50 AM

#### Reinventing Neurosurgery: Surgery of the Cerebrum

- Moderator: *Ian F. Pollack*  
Presiding Officer: *Issam A. Awad*  
7:30–7:45 Arteries and Veins: “Handcuffs or Roadmaps?”  
*Albert L. Rhoton Jr.*  
7:45–8 Black Holes of the Brain: How to Reach Challenging Areas of the Cerebrum, *Robert F. Spetzler*  
8–8:05 Introduction of Special Lecturer, *Ian F. Pollack*  
8:05–8:30 Special Lecture, Human Exploration of the Universe, *Alan Dressler, PhD*  
8:30–8:45 Surgery of the Supratentorial Ventricles: Vectors and Innovations, *Axel Perneczky*  
8:45–8:50 Introduction of the Honored Guest, *Issam A. Awad*  
8:50–9:20 Honored Guest Presentation, Surgery of the Human Cerebrum: A Collective Modernity, *Michael L.J. Apuzzo*  
9:20–10:20 Coffee with Exhibitors  
10:20–10:35 Minimalist Approach: Functional Mapping, *Peter McL. Black*  
10:35–10:40 Introduction of Emeritus Special Lecturer, *Issam A. Awad*  
10:40–11:10 Emeritus Special Lecture, Consciousness and Neurosurgery, *Francis H.C. Crick, PhD*  
11:10–11:20 Introduction of the President, *Douglas Kondziolka*  
11:20–11:50 Presidential Address, *Issam A. Awad*  
11:50–12:30 Visit Exhibits and Pick Up Lunch for Seminars

### Luncheon Seminars

12:30–2 PM

#### M12 Anterior Circulation Aneurysms: Options and Approaches

- Moderator: *B. Gregory Thompson, Jr.*  
Faculty: *Robert A. Solomon, Robert E. Breeze, Rocco A. Armonda, Craig A. Van Der Veer, Richard D. Fessler*

#### M13 Poor-Grade Aneurysm Patients: Management Options

- Moderator: *James I. Ausman*  
Faculty: *Peter David LeRoux, Joseph M. Zabramski, Murat Gunel, Edward W. Mee, Michael B. Horowitz*

#### M14 Management of Cavernous and Paraclinoidal Vascular Lesions

- Moderator: *Thomas A. Kopitnik, Jr.*  
Faculty: *C. Michael Cawley, III, Jay M. Findlay, Paul J. Camarata, Shigeaki Kobayashi, Gary Redekop*

#### M15 Case Management of Complex Head Trauma

- Moderator: *M. Ross Bullock*  
Faculty: *Alex B. Valadka, Jamshid Ghajar, J. Paul Muizelaar, Chi Zhing Zee*

#### M24 Case Management: Unruptured Aneurysms

- Moderator: *Philip E. Stieg*  
Faculty: *Robert H. Rosenwasser, Juha Hernesniemi, Frank Culicchia, Fredric B. Meyer, Matti Vapalabti*

#### M27 Cranial Endoscopy for the Adult and Pediatric Neurosurgeon

- Moderator: *Alan R. Cohen*  
Faculty: *Kim H. Manwaring, Wesley A. King, Michael R. Gaab, Kerry R. Crone, Paul A. Graab*



Plaza De Panama, Balboa Park. Photo courtesy of the San Diego Convention & Visitors Bureau. Photo credit: Brett Shoaf

### Section on Cerebrovascular Surgery I

#### Skull Base Strategies in Cerebrovascular Surgery

2–5:30 PM

- 2–3:30 Open Papers 700–709, Moderator: *H. Hunt Batjer*  
3:30–4:00 Refreshments with Exhibitors  
4–4:30 Oral Posters 1–13, Moderator: *H. Hunt Batjer*  
4:40–5:30 Special Symposium, Moderators: *Frank Culicchia, H. Hunt Batjer*  
4:40–4:45 Introduction of the Charles Drake Lecturer  
4:45–5:10 The Charles Drake Lecture Choosing a Skull Base Approach to Cerebrovascular Lesions, *John M. Tew Jr.*  
5:10–5:30 Case Discussions: Skull Base Approaches, *John M. Tew Jr., Frank Culicchia, H. Hunt Batjer*

#### Reinventing Neurosurgery:

#### The Cerebellum and Brainstem

2–5 PM

- Moderator: *Joel D. MacDonald*  
CNS  
Course Director: *Mark E. Linskey*  
2–2:20 Posterior Fossa Anatomy Made Ridiculously Simple, *John Diaz Day*  
2:20–2:35 Posterior Fossa Vascular Lesions: Pearls on Approaches and Technology, *Daniel L. Barrow*  
2:35–2:50 Brainstem and Cerebellar Tumors: Pearls on Approaches and Strategies, *R. Michael Scott*  
2:50–3:10 Techniques for Safe Brainstem Surgery, *Johannes Schramm*  
3:10–3:30 Complication Avoidance in the Posterior Fossa, *Madjid Samii*  
3:30–4 Refreshments with Exhibitors  
4–4:15 The Chiari Malformation and Fibromyalgia: Fact and Fiction, *Richard G. Ellenbogen*  
4:15–4:30 Energy Sources: Radiosurgery in the Posterior Fossa, *Douglas Kondziolka*  
4:30–5 Case Discussion: Cases in Posterior Fossa Surgery, Panel of Experts

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## Tuesday, October 2

### Luncheon Seminars

12:30–2 PM

#### T40 Cerebral Aneurysm Surgery: Complication Avoidance and Management

Moderator: *Steven L. Giannotta*  
 Faculty: *Joshua B. Bederson, Christopher C. Getch, Winfield S. Fisher, III, R. Loch Macdonald, Izumi Nagata*

#### T41 Optimizing Multimodality Management of AVMs

Moderator: *H. Hunt Batjer*  
 Faculty: *Neil A. Martin, Cameron G. McDougall, Evandro de Oliveira, Nobuo Hashimoto, Bengt Karlsson*

#### T42 Vascular Augmentation Techniques for Cerebral Ischemia

Moderator: *Howard Yonas*  
 Faculty: *Michael T. Lawton, David W. Newell, R. Michael Scott, Joel D. MacDonald, Fady T. Charbel*

#### T43 Case Management: Carotid Disease: Grafts, Stents and Balloons

Moderator: *Christopher M. Loftus*  
 Faculty: *Robert E. Harbaugh, A. John Popp, Jeffrey E. Thomas, Donald O. Quest, Mark H. Camel*

## Wednesday, October 3

### General Scientific Session III

7:30–11:45 AM

#### Reinventing Neurosurgery: The Future of Neurovascular Surgery

Moderator: *B. Gregory Thompson Jr.*  
 Presiding Officer: *Paul J. Camarata*  
 7:30–7:50 Special Lecture, Taking the Genome to Patients with Neurologic Disorders, *Mark Tuszynski*  
 7:50–8:05 Endovascular Neurosurgery: The Future without Limits, *L. N. Hopkins, III*  
 8:05–8:20 Carotid Stenting: Fact and Fiction, *Marc R. Mayberg*  
 8:20–8:35 Bypass Surgery: Indications and Expectations, *Neil A. Martin*  
 8:35–8:50 Vasospasm and Endovascular Vasodilation: What Works? *H. Richard Winn*  
 8:50–8:55 Introduction of the Invited Guest, *Daniel L. Barrow*  
 8:55–9:30 Special Lecture, The Reinvention of Popular Music, *Sir George Martin*  
 9:30–10:30 Coffee with Exhibitors  
 10:30–10:35 CNS International Committee Report  
 10:35–10:40 Distinguished Service Award  
 10:40–10:50 Presidential Acknowledgement  
 10:50–11:05 Honored Guest Presentation, Brave New World: The Dawn of Neurorestoration and the Emergence of Molecular and Cellular Neurosurgery, *Michael L.J. Apuzzo*  
 11:05–11:10 Introduction of Special Lecturer, *Richard G. Ellenbogen*  
 11:10–11:40 Special Lecture, Profiles on Leadership, *Rear Admiral Albert H. Konetzni, Jr.*

### Luncheon Seminars

12:30–2 PM

#### W69 Posterior Circulation Aneurysms: Issues and Controversies

Moderator: *Daniel L. Barrow*  
 Faculty: *Lee R. Guterman, Gary K. Steinberg, Rafael J. Tamargo, Hirotoshi Sano*

#### W72 Surgical Management of Complex Carotid Disease

Moderator: *Robert L. Grubb, Jr.*  
 Faculty: *Christopher S. Ogilvy, Kevin M. McGrail, Jacques J. Morcos, Jose A. Martin-Rodriguez*

#### W74 Management of the Difficult Shunt

Moderator: *James M. Drake*  
 Faculty: *Harold L. Rekate, Cheryl A. Muszynski, Alexa I. Canady, Michael H. Handler, Neil Arthur Feldstein*

#### W75 Vascular Case Studies: How I Would Do It

Moderator: *H. Richard Winn*  
 Faculty: *Takanori Fukushima, Eugene S. Flamm, Robert E. Breeze, Neal F. Kassell*

#### W80 Contemporary Issues in the Management of Stroke

Moderator: *Robert J. Dempsey*  
 Faculty: *Robert M. Friedlander, E. Sander Connolly, Jr., Vladimir Zelman, Charles J. Hodge, Jr., Tetsuo Kanno*

### Section on Cerebrovascular Surgery II

#### Neurovascular Critical Care

2–5:30 PM

2–3:30 Open Papers 811–820, Moderators: *Joshua B. Bederson, Fady T. Charbel*  
 3:30–4 Refreshments with Exhibitors  
 4–4:40 Oral Posters 14–26, Moderators: *Joshua B. Bederson, Fady T. Charbel*  
 4:40–5:30 Special Symposium, Moderators: *Joshua B. Bederson, Fady T. Charbel*  
 4:40–4:50 Who Is in Charge of the Patient and Why, *Neil A. Martin*  
 4:50–5 Policies, Procedures and Protocols, *John Paul Elliott*  
 5–5:10 Hemodynamic Monitoring, *Fady T. Charbel*  
 5:10–5:20 Multisystem Approach to Optimizing Treatment, *Joshua B. Bederson*  
 5:20–5:30 Documentation and Coding, *Veronica Chiang*

### Scientific Sessions/Open Papers

## Monday, October 1

### Section on Cerebrovascular Surgery I

#### Galbraith Award

2–2:09 PM

#### 700 Surface Modifications of Platinum and Biodegradable Microcoils for Localized Adenovirus Delivery in Vitro and in Vivo Using a Rat Aneurysm Model

*John M. Abrahams, Cunxian Song, M. Sean Grady, Scott L. Diamond, Robert J. Levy*

2:09–2:18 PM

#### 701 Surgical Management of Intracranial Aneurysms Previously Treated by Endovascular Therapy

*Y. Jonathan Zhang, C. Michael Cawley, Jacques Dion, Daniel L. Barrow*

2:18–2:27 PM

**702 Risk of Hemorrhage from Unsecured Unruptured Aneurysms during and after Hypertensive Hypervolemic Therapy**  
*Brian L. Hoh, Bob S. Carter, Christopher S. Ogilvy*

2:27–2:36 PM

**703 Minimally Invasive Stereoscopic and Robotic Assisted Cranial Surgery: A Cadaveric Study**  
*Alois Zauner, Oscar Alves, Stefano Signoretti, Tom Damiano Scott Graham, John Ward, Ross Bullock, Harold F Young*

2:36–2:45 PM

**704 Biodegradable Polyglycolide Endovascular Coils Promote Wall Thickening and Drug Delivery in a Rat Aneurysm Model**  
*John M. Abrahams, Mark S. Forman, M. Sean Grady, Scott L. Diamond*

2:45–2:54 PM

**705 Role of Selection and Referral Bias in Apparent “Critical” Diameters for Aneurysm Rupture**  
*Phillip S. Dickey, Purushothaman Kailasnath*

2:54–3:03 PM

**706 CT Angiography Replacement of Catheter Angiography in Management of Patients With SAH—More Information for Less Cost and Greater Safety**  
*Howard Yonas, Charles A. Jungreis, Anthony M. Kaufmann, Lori A. Kirby*

3:03–3:12 PM

**707 Hemorrhage as a Complication of AVM Embolization**  
*Michael P. Marks, M.L. Marcellus, H.M. Do, G.K. Steinberg*

3:12–3:21 PM

**708 Prophylactic Triple-H Therapy after Aneurysmal Subarachnoid Hemorrhage: A Clinical, Prospective, Randomized, Controlled Study**  
*Arild Egge, Knut Waterloo, Hans Sjøholm, Tore Solberg, Tor Ingebrigtsen, Bertil Romner*

3:21–3:30 PM

**709 Endovascular Stent Grafts for the Treatment of Traumatic Skull Base Vascular Lesions**  
*Gary J. Redekop, Thomas Marotta*

## Wednesday, October 3

### Section on Cerebrovascular Surgery II

2–2:09 PM

**811 Spinal Cord Stimulation Increases Cerebral Blood Flow and Reduces Stroke Volume in a Focal Cerebral Ischemia Model**  
*Oren Sagher, Dah-Luen Huang, Richard Keep*

2:09–2:18 PM

**812 Surgical and Endovascular Treatment of Complex Cervical and Petrous Carotid Lesions**  
*Brian L. Hoh, Christopher M. Putman, Christopher S. Ogilvy*

2:18–2:27 PM

**813 Outcomes Following Treatment of Carotid Artery Stenosis—Patient Reported Health Status Preoperatively and at Six Month Follow-up**  
*Hulda B. Magnadottir, Robert E. Harbaugh*

2:27–2:36 PM

**814 Genetics of Intracranial Aneurysms II: Alterations in the Regulatory Sequence of Collagenase Type IV**  
*Amin B. Kassam, David Peters, Mel Field, Atul Patel, Robert Ferrell*

2:36–2:45 PM

**815 Troponin Trend Can Differentiate “Stunned” Myocardium Associated with Aneurysmal SAH Vs. Myocardial Infarction**  
*Ketan R. Bulsara, Matt McGirt, Lawrence Liao, Alan T. Villavicencio, Cecil Borel, Michael Alexander, Allan H. Friedman*

2:45–2:54 PM

**816 Recurrent Hemorrhage of Unsecured Aneurysms during Hyperdynamic Therapy**  
*Patrick J. Connolly, Thomas J. Leipzig, Kathleen Redelman, Rajesh K. Bindal, Terry G. Horner*

2:54–3:03 PM

**817 Polyamine Inter-conversion Pathway in Transient Focal Cerebral Ischemia**  
*Robert J. Dempsey, Adibhatla M. Rao, James F. Hatcher, Nagesh Golla, Kurt Sailor*

3:03–3:12 PM

**818 Functional Outcome after Decompressive Hemicraniectomy for Massive Middle Cerebral Artery Infarction: Results of an Open Prospective Study**  
*Abbas Sour, Bechir Jarraya, Gerard Rancurel, Jacques Philippon, Philippe Cornu*

3:12–3:21 PM

**819 Endovascular Treatment of Aneurysms as a First Choice**  
*Jay U. Howington, Robert C. Dawson, III, Rand M. Voorhies, Edward S. Connolly, Frank Culicchia*

3:21–3:30 PM

**820 Multicenter Feasibility and Safety Study of the ‘Memotherm’ Carotid Stent for Extracranial Carotid Artery Stenosis**  
*Adnan I. Qureshi, M. Fareed K. Suri, Gishel New, Juan Doulin, Daniel C. Wadsworth, L. Nelson Hopkins*

## The Joint Section on Cerebrovascular Surgery Announces

### Fellowships in Neuroendovascular Surgery

- Available July 1, 2002
- \$40,000 stipend
- Residents in North America training programs
- Must have completed 1 year of training in basic radiology/neuroradiology including diagnostic angiography

APPLICATION DEADLINE: January 1, 2002

For application forms, contact:

Marc R. Mayberg, MD  
Department of Neurological Surgery  
Cleveland Clinic Foundation  
9500 Euclid Avenue; S80  
Cleveland, Ohio 44195  
Phone: (216) 445-4430  
Fax: (216) 445-6878

# Stem Cells and Stroke: Novel Treatment Strategies

By Anthony L. D'Ambrosio, MD, E. Sander Connolly Jr., MD, and Robert J. Dempsey, MD

Until recently, neuronal regeneration in the adult central nervous system (CNS) was believed to be impossible. Neuronal cell damage caused by devastating disease processes such as cerebral ischemia and trauma was thought to be permanent and irreversible. However, with the recent advances in stem cell research, novel therapeutic strategies are currently challenging this paradigm.

Long recognized to exist in the rodent and avian brain, neural stem cells have recently been found in several regions of the adult mammalian brain, including the dentate gyrus, the subventricular zone and the olfactory bulb.<sup>6,7,9,11,12,16</sup> In response to a variety of physiological and pathological stimuli, these cells have the potential to repopulate injured regions and differentiate into neuronal cell lines.<sup>1,3,10,12,13</sup> Furthermore, preliminary data suggests that this increase in neurogenesis possibly contributes to the functional recovery following stroke.<sup>1,10,12,16</sup> There is also increasing evidence that well-differentiated parenchymal cells may possess the capacity to revert back to an undifferentiated cell type and then redifferentiate into neural progenitor cells in the setting of CNS disease states.<sup>1,9</sup>

## Role of NTFs

The regeneration, proliferation and migration of stem cells is partially controlled by neurotrophic factors (NTFs).<sup>1</sup> NTFs work through juxtacrine, paracrine and autocrine mechanisms to regulate the balance between stem cell growth, maturation, migration and death.<sup>1</sup> In the setting of acute ischemia, the expression of NTFs is altered locally and temporally throughout the ischemic core and hypoperfused penumbra, tilting this delicate balance in favor of neuronal cell death.<sup>1</sup>

These regional and temporal changes in NTF expression and the subsequent effects on neuronal cell fates are critical in experimental injury outcomes. Recent experiments have demonstrated that exogenous administration of high concentrations of NTFs in the setting of cerebral ischemia is neuroprotective.<sup>1</sup> The mechanism for this effect is believed to be based on improved neural stem cell proliferation and differentiation within the ischemic parenchyma. Therefore, the combination of stem cell transplantation and neurotrophic factor administration may prove to be a powerful neuroprotective/regenerative strategy.<sup>1</sup>

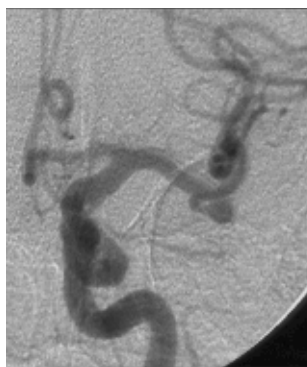
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## What Would You Do?

We are adding this new section on a clinical care dilemma to *Cerebrovascular News*. We intend to highlight cases presenting a therapeutic dilemma. We hope you respond with your opinion either by e-mail or via fax to (617) 734-8342. If you are a registered member of the CV Section you should receive this article also via e-mail. If you do not receive the e-mail, please let us know and you will be added to the list.

If you have cases that you wish to contribute please forward them to my attention. In the following issue results will be tabulated and expert opinions highlighted.

I hope you participate and enjoy this section.  
—Robert M. Friedlander, MD, MA, Editor, *Cerebrovascular News*  
rfriedlander@rics.bwh.harvard.edu



Left carotid angiogram



Right carotid angiogram

You are seeing a woman in your office with bilateral incidental middle cerebral artery aneurysms. The one on the right is broad necked, bilobed and measures 4-5 mm. The left one is narrow necked and measures 3-4 mm. She is in good general health other than mild asthma.

What would you do if she were 20, 40, 60 or 80 years old?

Age	20	40	60	80
No follow up needed				
MRIs at set intervals				
Treat only the right aneurysm				
Clip				
Coil				
Treat both aneurysms				
Clip				
Coil				
Other comments:				

Fax to (617) 734-8342

Recently, Roy and others<sup>15</sup> demonstrated the ability to identify and isolate primitive human progenitor cells from the dentate gyrus of the adult hippocampus. By transfecting progenitor cells with humanized green fluorescent protein (hGFP) driven by the nestin enhancer, they were able to isolate and culture these cells to near purity. These cells matured antigenically and physiologically as neurons.

Uchida and others<sup>17</sup> directly isolated human central nervous system stem cells (hCNS SC) from fetal brain tissue using cell surface antibodies and fluorescence-activated cell sorting (FACS) techniques. These isolates demonstrated the ability to differentiate into both neurons and glial cells, and upon transplantation into the brains of immunodeficient mice, these cells showed engraftment, proliferation, migration and neural differentiation.

### Using Bone Marrow Cells

As neural stem cells are few in number and only a few groups<sup>15,17</sup> have successfully harvested them, some investigators have turned to bone marrow stem cells as an alternative source of progenitor tissue.<sup>14</sup> Bone marrow cells offer several advantages including easy isolation with marrow aspiration, rapid proliferation in cell culture and good survival and integration into host tissue.<sup>10</sup>

Researchers have studied recently whether or not bone marrow stem cells possess the potential to differentiate into neural cell types. Kopen and others<sup>8</sup> injected marrow stromal cells (MSC) into the lateral ventricle of neonatal mice and demonstrated cell differentiation into mature astrocytes and possibly even neurons. Subsequent investigations have demonstrated the capability of bone marrow stem cells to differentiate into neuronal phenotypes in adult mouse brain as well.<sup>4,3,14</sup> When injected intravascularly, marrow stromal cells have demonstrated the potential to successfully engraft and migrate within the brain parenchyma.<sup>2,5,10</sup> In the setting of murine cerebral ischemia, several groups have demonstrated the capability of bone marrow stem cells to survive, migrate and differentiate into parenchymal cell phenotypes.<sup>9,10,12</sup>

Li and others<sup>10</sup> transplanted adult bone marrow nonhematopoietic cells into the striatum after embolic middle cerebral artery occlusion in mice. These transplanted cells survived in the ischemic brain and actually improved functional outcomes. Most recently, Chen and others<sup>5</sup> demonstrated a functional improvement in rats when MSCs were injected intravenously after stroke. However, there is no direct evidence that stem cell transplants integrate functionally as neurons.

### More Studies Needed

There are three potential strategies for the use of stem cells in the treatment of human stroke. One way is to activate intrinsic neural stem cells via local administration of NTFs.<sup>1</sup> Another approach would be to harvest autologous stem cells at the time of neurologic injury, and then transplant these stem cells, either directly or intravascularly, back into the injured patient. Finally, immunologically modified human stem cells might be expanded from stored pools and used allogeneically with or without immunosuppression.

To develop future therapeutic stroke therapies, further experimental studies, especially in primates, is essential. The prospect of successful research in the future will most likely result in re-evaluation of the current concepts of neural regeneration in the adult central nervous system.

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# Minutes of the Executive Council Meeting

By Warren R. Selman, MD

**D**r. Awad called the meeting to order on April 23, 2001. Members present included Drs. Awad, Batjer, Harbaugh, Stieg, Mayberg, Selman, Dempsey, Heros, Friedlander, Morcos, Loftus, Rosenwasser, Hopkins, Culicchia, Bailes, Ratcheson, Piepgras, Dacey and Giannotta.

Guests present were Dr. Qureshi; Dr. Ramos-Zuniga of the Mexican Neurosurgical Society; Ms. Barbara Morrison, AANS liaison; Mr. Ron Engelbreit, Deputy Executive Director of the AANS; and Ms. Behncke, Executive Director of the CNS.

The minutes of the Executive Council Meeting of February 10, 2001, were reviewed and approved with the revision that Dr. Morcos was not a member of the scientific program committee for the 2001 CV Section meeting in Hawaii.

## Long-range Planning Committee

Dr. Batjer summarized the report of the Strategic Planning Committee. The council expressed its appreciation to Dr. Batjer for his organized and thoughtful presentation of the outstanding plan for CV Section. Dr. Awad suggested that this strategic plan be disseminated to the members of the society through the newsletter. (See story on page 9.)

## Treasurer's Report

Dr. Mayberg and Mr. Engelbreit summarized the current financial status of the Section. Drs. Awad and Mayberg stressed the need to separate the meeting expenses and revenues so that the obligation to the American Association of Interventional and Therapeutic Neuroradiology (ASITN) can be determined. The net revenue from the 2001 Annual meeting was approximately \$42,000. The Council appointed a committee consisting of the Chair, the Chair Elect, the Treasurer, and Mr. Engelbreit to review the finances and fund allocation of the CV Section.

## Committee/Project Updates

### ACGME Guidelines

The Council agreed with the suggestion that in order to submit an application for funding fellowships must be in compliance with the ACGME guidelines and the fellowship must have completed or be in the process of obtaining accreditation.

### CV Surgery Fellowship Guidelines

These guidelines are complete and were presented at the Summit Meeting by Dr. Winn. They will be discussed at the upcoming Senior Society Meeting in May 2001.

### AANS 2001

The Council expressed its appreciation to Dr. Morcos for organizing an outstanding program for the AANS Annual Meeting.

### CNS 2001

The CNS 2001 Annual Meeting will incorporate new elements designed to implement strategic initiatives of the Section. There will be two symposia. The first will focus on skull base strategies in cerebrovascular surgery and will feature Dr. John Tew, this year's Drake Lecturer. The second symposium will focus on critical care in cerebrovascular surgery.

## CV Section 2002 Annual Meeting

Dr. Rosenwasser's proposals were reviewed and the program will be finalized in the near future. There will be an attempt to integrate neurologists, critical care specialists and anesthesiologists.

## Membership Committee

Dr. Culicchia presented those who have completed the application process. Fifteen applicants were reviewed and accepted for final vote at the CV Section business meeting.

The Society of Neuroanesthesia and Critical Care will be notified of the opportunity to become corresponding members of the CV Section. Nomination of new members:

1. Alleyne, Cargill; Rochester, N.Y.; Active; (Barrow, Spetzler)
2. Clatterbuck, Richard; Baltimore, Md.; Candidate; (Rigamonti, Tamargo)
3. Dion, Jacques; Atlanta, Ga.; Adjunct Associate; (Barrow, Bederson)
4. Gleason, Patrick; Santa Fe, N.M.; Active; (Steig, Bederson)
5. Rinne, Jaakko; Kuopio, Finland; International; (Awad, Bederson)
6. Ross, Ian; Jackson, Miss.; Active; (Wallace, Findlay)
7. Russell, Stephen; New York, N.Y.; Candidate; (Jafar, LeRoux)
8. Salkind, Gene; Huntingdon Valley, Pa.; Active; (Flamm, Bederson)
9. Singh, Ran; Norfolk, Va.; Active; (Heros, Bederson)
10. Spetzler, Uwe; Freiburg, Germany; International; (Spetzler, Ausman)
11. Srinivasan, Jayashree; Chicago, Ill.; Active; (Bederson, Batjer)
12. Tacconi, Leonello; Liverpool, England; International; (Loftus, Spetzler)
13. Takaoka, Yashiro; Cleveland, Ohio; Active; (Selman, Bederson)
14. Veznedaroglu, Erol; Philadelphia, Pa.; Candidate; (Rosenwasser, Bederson)
15. Walters, Carrie; Phoenix, Ariz.; Active; (Carter, McDougall)

## Newsletter

Dr. Thompson was congratulated for his outstanding efforts in improving the newsletter.

## Aneurysm Guidelines

The CV Section supported the distribution of Unruptured Intracranial Aneurysm Guidelines to neurologists, neurosurgeons and emergency physicians.

## AVM Guidelines

These guidelines are now complete and are in the review process by the American Heart Association and *Stroke*.

## Endovascular Treatment of Aneurysms

Dr. Rosenwasser is part of the writing group for these guidelines.

## Outcomes Committee

Dr. Harbaugh provided an update on the current status of the outcomes initiatives and stressed the importance of continued participation in the online submission of patients.

*continued on page 11*

## CV Section's Strategic Plan 2001

### I. Membership Goals

The Section has steadily grown to well over 600 members. Each year has seen incremental growth. It is the recommendation of the Long Range Planning Committee that the Membership Committee be continually charged with developing new strategies for increasing the numbers of members of the Section. Of particular importance is expanding access to resident membership and assuring easy transition to active membership status. It is noted that Chris Getch, MD, has developed a very good strategy via the CNS, and the Membership Committee is encouraged to solicit input from Dr. Getch in this regard.

The future thrust of membership drives will also include American Association of Interventional and Therapeutic Neuroradiology (ASITN), cerebrovascular neurologists, neuroanesthesiologists and critical care specialists. The incoming and outgoing Membership Chair will revisit the issue of our classification scheme for membership and report back to the Executive Council in April 2002. Specifically, the corresponding membership category for international neurosurgeons will be emphasized and prioritized as a potential growth strategy.

### II. Role of Subspecialty Identification

The Section should promote our subspecialty as a component of the "house of neurosurgery." We should avoid pushing for distinction of this subspecialty via the RRC or ACGME.

### III. Where Does Cranial Base Surgery Fit?

Cranial base surgery and relevant exposures are integral to the practice of cerebrovascular surgery. Jacques Morcos, MD, will be serving as a liaison to the cranial base practitioners and assure that appropriate teaching programs are included in all educational offerings by the Section.

### IV. Member Services

#### A. Education

The Section will provide educational opportunities jointly sponsored for CME by the AANS at the JSCVS Annual Meeting and the AANS Annual Meeting. Programs at the CNS Annual Meeting will have CME sponsored by the CNS. A newly designated Annual Meeting Committee will coordinate the scientific programs:

- 1) Annual Meeting Chairman
- 2) Scientific Program Chairman
- 3) AANS Annual Meeting Liaison
- 4) CNS Annual Meeting Liaison
- 5) Treasurer of the Section

The Executive Council will continue to study the issue of whether an alternative pathway should be developed for grandfathering in experienced cerebrovascular surgeons into the endovascular arena.

#### B. Coding and Reimbursement

The Section will remain active in assisting the national neurosurgical initiatives and liaison with the Washington Committee in this arena.

#### C. Publications

The primary educational publications by the Section will include the *Cerebrovascular News*, *Neurosurgery News*, the *AANS*

*Bulletin*, *Neurosurgical Focus*, and *Circle of Willis*. The Section will not consider developing a new journal at this time.

#### D. Washington Activities

The Section will continue to designate a person to the Washington Committee Chair and Katie Orrico. In addition, the Section will be available to serve the Washington Committee in any way needed to assist the overall initiatives of the Washington Committee.

### V. Specialty Services

The Section on Cerebrovascular Surgery will involve itself in the following services:

- Production of cerebrovascular guidelines
- Participation with the Society of Neurological Surgeons in the oversight of cerebrovascular fellowships
- Participation with the RRC as requested
- Continue to maintain an active presence in the leadership bodies of the AANS and CNS
- The Section will participate with the American Board of Neurological Surgery in the accrual of questions for the Primary examination.

### VI. Cerebrovascular Fellowships Offered by the Section

Industry has clearly stepped up to the plate in assuring continued access for neurosurgeons into the endovascular arena. Robert Rosenwasser, MD, has been tasked with developing relationships with companies such as Cordis for the potential development of cerebrovascular fellowships.

### VII. Strategic Financial Planning

Section leadership will develop a strategic financial plan in the immediate future to determine the following:

- How much cash reserves does the Section need?
- Are alternate accounting methodologies more appropriate for the conduct of our annual budget?

### VIII. Relationship to the AANS and CNS

The Section will remain allied and affiliated with both parent organizations as a Joint Section. Leadership of the Section will maintain pressure on the leadership of both parent organizations to assure high quality services at appropriate costs.

### IX. Relationship to ASITN

The Executive Council and Long Range Planning Committee will consider various models and options regarding the relationship and interaction between the SCVS and the ASITN.

### X. Alternative Pathways for Endovascular Training

The Executive Council will continue to study the issue of whether an alternative pathway should be developed for grandfathering in experienced cerebrovascular surgeons into the endovascular arena.

### XI. Neurovascular Critical Care

The Executive Council is committed to maintaining a leadership role for neurosurgeons in the critical care arena. A Task Force will be appointed, charged with exploring these opportunities with relevant societies. In addition, the incoming Chair will contact the leadership of the Society for Neuroanesthesia and Critical Care to explore joint meeting opportunities, as well as other professional collaboration.

and Joint Section Chair.

- e) Treasurer—The Section Treasurer acts as an ex-officio member of this Annual Meeting Committee.
- f) Chairman—The Section Chair also serves ex-officio with this committee.

Operationally, this committee structure results in a four-year transition from the CNS Meeting Liaison to Annual Meeting Chair. Each new appointment and reappointment to this committee structure would be at the discretion of the incoming Chair of the Section.

Strategic alliances also were extensively discussed by the strategic planning group. The relationship with the American Association of Interventional and Therapeutic Neuroradiology (ASITN) has been a huge success for the Section and has built appropriate trustful relationships, as well as scientific synergy for the benefit of our membership. However, the current Section leadership would like to maintain and grow the ASITN relationship while expanding the scientific horizons of the educational products of the Section. For example, our colleagues in Critical Care through the Society of Neuroanesthesia and Critical Care (SNACC), as well as our cerebrovascular neurologists, are critical components of any broad educational program, as well as key liaisons to move our subspecialty forward. In addition, we would like to selectively reach out to cerebrovascular colleagues in Mexico, Asia, Europe and South America. Desire for these relationships has influenced our planning for future sites and the membership can look forward to some very interesting combined meetings in the future.

### Aneurysm Trials

Without question, the most important issue before the Section at this time is the push to develop a comparative prospectively randomized trial of endovascular versus microsurgical treatment of intracranial aneurysm. At the present time, three trials are on the table, ISUIA, SEAL, and NATURE. As these proposals have unfolded over the past several months, I have been surprised and concerned that they share one major feature: *No requirement for long-term follow-up angiography.*

This common theme was particularly astounding to me in light of the current literature demonstrating that the initial clinical outcomes for both surgery and endovascular therapy are fairly comparable, but that the recurrence rate following endovascular treatment is alarmingly high. In addition, we have long recognized that surgical clipping of aneurysms, while durable, is certainly not permanent. We tend to detect symptomatic recurrences at seven to 10 years follow-up. I recently operated on a patient who had rebled from an aneurysm treated 25 years ago by Charles Drake, MD.

A trial without morphologic follow-up runs a major risk to the public health by failing to identify what could potentially be a large group of patients harboring persisting and potentially growing intracranial aneurysms that are not symptomatic at the time of the follow-up deadline. Under my watch, I can assure you that the Section will vigorously oppose any trial without attention to this critical matter. At the Section's Executive Council Meeting in Toronto, outgoing Chair Dr. Awad charged Chris Loftus, MD, with chairing a special writing group to develop specific guidelines regarding outcome parameters and

the characteristics of an effective trial of microsurgery versus endovascular techniques. At the time of this communication, final rough drafts of such a document are being circulated.

In my personal view, outcome parameters must include at a very minimum the following components:

- a) Clinical and Neuro-psychometric—How is the patient functioning and have any further aneurysm related events occurred?
- b) Morphology—Actual angiographic evidence of early results with percent aneurysm occlusion and presence of residual tags.
- c) Durability at a minimum of five years—This criteria requires follow-up angiography at five years at a minimum and 10 years being deemed desirable. This criteria will prevent missing aneurysms treated either endovascularly or surgically that have persisting remnants or are growing.

I must tell you that I have major concerns about any trial being developed. Some of the harsh rhetoric of the past years has damaged some of the potential synergy between the endovascular and surgical communities and adversely affected the ideal *stroke team approach* to the management of complicated cerebrovascular problems. I would articulate my major concerns with such a trial in the following way:

- a) In light of continued technological evolution, particularly the use of liquid acrylics and stenting on the endovascular side and cranial base exposures and new brain protective strategies on the surgical side, are we truly “ripe” for a clinical trial? The commitment of major resources will be required to perform such a trial and it would be a disaster if the results were simply cast aside as “we do not even do it that way anymore.”
- b) Are we comparing two strategies in a way that clearly asks a relevant clinical question that can potentially be answered? Endovascular therapy has been a component of aneurysm management for over a decade now and, at least in the practices in which I have participated, these strategies are being deployed strategically for synergy rather than an either/or approach. Specifically, an aneurysm may be found at surgery to have significantly higher risk than one would have predicted based on initial angiography and that risk can be avoided in selected patients by deploying an endovascular technique. Similarly, aneurysms that have poor morphology for endovascular treatment can be converted into favorable lesions by partial surgical reconstruction. In my view, it would be a disaster for the public interest if one of these strategies “proved” superiority in a trial and displaced the other.
- c) Will non-endovascular neurosurgeons actually comply with an unruptured prospective trial arm? In many centers, most unruptured aneurysms are being managed surgically and major revenue loss would occur if such lesions were simply randomized to endovascular or surgical treatment. This situation would create an analogy to the ECIC trial when patients were simply operated outside the trial taking ideal surgical patients out of the analysis. The results of such trial would likely strongly favor endovascular therapy.
- d) Can an unruptured arm be legitimately created? I seriously question the ability of the study planners to create a rational means of randomizing unruptured asymptomatic patients. If one thinks about practice issues, a major question that needs to be addressed in every initial patient encounter is whether they should be treated or not. Certain lesions are selected for conservative follow-up and others for invasive therapy based on subtle issues.

*continued on next page*

## Chariman's Message (continued from page 10)

For example, if the patient complains of headaches, could they feasibly relate to the discovered aneurysm? If the headaches are a bit worse over the past six months, does this imply instability?

Obviously, morphologic features such as irregularity or daughter sacs impact decision making independent of size. What about specific location? I personally am much more aggressive in recommending treatment for patients with very straightforward and safe lesions than those whose lesions carry a significantly higher risk. What about age? All of these issues and many more make me considerably uncomfortable about a randomization process for this group. At my current state of thinking, I would strongly favor inclusion of all patients treated at participating centers in a *registry for unruptured lesions*. Thus at all participating centers, *all* patients with intact aneurysms would be followed for a minimum of five years with angiographic follow-up whether treated or not.

As this dialogue goes forward, our Section has an enormous opportunity (and onerous responsibility) to ensure that any trial

undertaken is scientifically and methodologically sound and free of bias and that the public health interest is well served.

### Upcoming Events

Frank Culicchia, MD, will serve as liaison to the CNS Annual Meeting in San Diego. John Tew, MD, has been selected as the Drake Lecturer. The first symposium will focus on skull base strategies in cerebrovascular surgery. The second symposium will be dedicated to critical care issues in cerebrovascular surgery.

The upcoming Section meeting in 2002 will be held in early February in Dallas, Texas. Robert Rosenwasser, MD, is serving as Annual Meeting Chairman and has developed a terrific program (See page 12 for more details). The Dallas venue was selected because the size of the meeting has grown to an extent that we simply were unable to coordinate geographically with the American Stroke Association meeting in San Antonio. We have selected Dallas so that people could very easily transit between those two cities and attend both meetings.

Once again, I would like to thank you, the membership, for allowing me to serve as Chair of the Section. I hope to represent your values well.

## Minutes (continued from page 8)

### CPT Coding

Drs. Harbaugh and Hassenbusch reviewed recent changes in the codes.

### Task Force on Communications and Technology

Dr. Harbaugh will ensure that the recommendations are incorporated into the permanent committee structure of the Section.

### Pharmacia/Upjohn CV Fellowship

There are 12 new applications under review. Dr. Dempsey is in discussions with the company to continue funding. He noted that this is the only fellowship directed toward residents and he stressed the importance of this initiative.

### Bayer Fellowship Award

Dr. Giannotta noted that Marc van Unen is leaving Bayer, and he will endeavor to secure continued funding for these fellowships.

### New Business

#### Mexican NS Invitation

The Executive Council approved the Mexican Society's initiative and will extend an invitation to members of the CV Section of the Mexican Neurosurgical Society to become Corresponding Members of the AANS/CNS CV Section under the new Rules and Regulations of the Section. The Mexican Society will work with our Membership Chairman, Dr. Culicchia, to facilitate the application process. The Executive Council also extended an invitation to the Mexican CV Section to join the AANS/CNS CV Section in co-sponsoring the CV Section Annual meeting in Phoenix in February 2003. The Mexican Society will designate a representative to work with our Annual Meeting Committee, which is to be headed by Dr. Thompson. A similar invitation will be issued to the German Cerebrovascular Society to join the Phoenix meeting. The contact for this society is Peter Schmiedek, MD.

#### Intracranial Aneurysm Trials for Endovascular and Microsurgery

The ISUIA, SEAL, and NATURE trials were discussed. The members of the Council expressed their concerns about the design of the various trials, including the adequacy of follow-up imaging and

length of follow-up. The Chair empowered Dr. Loftus to assemble a committee to include Drs. Grubb, Harbaugh, Bederson, Rosenwasser and two ASITN designees to draft a position statement that would define the criteria felt to be necessary for an optimal study of these techniques for the treatment of aneurysms. Drs. Hopkins and Qureshi discussed their proposal for studying both unruptured and ruptured aneurysms, NATURE. A resolution was passed to empower Dr. Batjer to appoint Drs. Stieg, Harbaugh and Rosenwasser to serve on the executive committee of the NATURE trial and to authorize the release of the aneurysm outcome database.

### HCFA Decision

The Council approved a resolution stating that it appreciates and accepts the HCFA guidelines to cover PTA of the carotid artery concurrent with stent placement in clinical trials that receive a Category B IDE designation from the FDA and reaffirms its belief that there should not be indiscriminant use of this technique outside strict guidelines.

### NREF Request for Funds

The Council determined that at the present time it would not be able to fund meritorious grant proposals. The Council will investigate mechanisms to develop the ability to support such projects in the future.

### Guidelines for Outcome Reporting

Dr. Batjer will spearhead an initiative to mandate literature-based, relevant outcome parameters for publications dealing with the treatment of aneurysms, arteriovenous malformations and carotid occlusive disease.

Dr. Awad thanked the members of the Council for the honor of serving as Chair. The Council in turn expressed its appreciation to Dr. Awad for his outstanding leadership. The meeting was adjourned.

*Warren R. Selman, MD, is Secretary of the AANS/CNS Section on Cerebrovascular Surgery.*

# Program for CV Section Meeting in Dallas

The fifth joint annual meeting of the CV Section and ASTIN will be held from Feb. 3-6 in Dallas. The meeting is co-sponsored by the American Society of Interventional and Therapeutic Neuroradiology. Following is the program as of August 22.

## Sunday, February 3, 2002

### Special Course I 8 AM-5 PM

#### Extracranial and Intracranial Vascular Reconstruction—Surgical and Endovascular Options

Co-directors: *Robert E. Harbaugh, Jacques E. Dion*

### Special Course II 8 AM-5 PM

#### Critical Care Management of Neurovascular Patients—Endovascular and Surgical Considerations

Co-directors: *Joshua B. Bederson, Thomas A. Tomsick*

### Special Course III 8 AM-NOON

#### Technical and Pharmacologic Considerations in Thrombolysis and Intracranial Angioplasty

Co-directors: *John J. Connors III, Lee R. Guterman*

### Special Course IV 1-5 PM

#### Technical and Clinical Considerations in the Endovascular Management of Intracranial Aneurysms

Co-directors: *Robert H. Rosenwasser, Fernando Vinuela*

### Opening Reception 6-8:30 PM

Enjoy a wonderful assortment of foods as you visit with old friends and new colleagues. The reception will be held at the Hotel InterContinental. All registered attendees will receive one complimentary ticket to the reception.

## Monday, February 4, 2002

### Welcome 7:45-8 AM

*Robert H. Rosenwasser, Randall T. Higashida*

### Scientific Symposium I 8-10 AM

#### Cerebral Revascularization

Moderators: *Christopher M. Loftus, Thomas A. Tomsick*

Anatomic and Physiologic Imaging of Cerebral Ischemia, *Richard E. Latchaw*

Defining Candidates for Cerebral Revascularization, *Howard Yonas*  
Surgical Option—Ischemic and Reconstructive, *Neil A. Martin*  
Endovascular Options—Ischemic and Reconstructive, *Randall T. Higashida*

Rationale for a New Study to Define the Role of EC-IC Bypass  
Current Status, *TBD*  
Case Presentations and Questions

### Beverage Break and Poster Viewing 10-10:30 AM

### Oral Presentations 10:30-NOON

### Luncheon Seminars NOON-2 PM

*(Advanced registration is required for all Luncheon Seminars.)*

#### Luncheon Seminar 01: Management of Cortical AVMs

Moderator: *Philip E. Stieg*

Panelists: *Christopher C. Getch, Robert H. Rosenwasser*

#### Luncheon Seminar 02: The INR Suite as a Critical Care Area: Anesthesia Monitoring

Moderators: *William L. Young, Wade Smith*

Panelists: *Rocco A. Armonda, Michael B. Horowitz, Lawrence R. Wechsler*

#### Luncheon Seminar 03: Management of Giant Intracranial Aneurysms

Moderators: *Duke S. Samson, Fernando Vinuela*

Panelists: *Christopher S. Ogilvy, H. Hunt Batjer*

#### Luncheon Seminar 04: Cavernous Malformations

Moderators: *John C. Chaloupka, Robert Carter*

Panelists: *Gary K. Steinberg, Cameron G. McDougall*

#### Luncheon Seminar 05: Management of Anterior Circulation Aneurysms

Moderators: *Robert A. Solomon, John Pile Spellman*

Panelists: *Phillip D. Purdy, B. Gregory Thompson, Jr.*

#### Luncheon Seminar 06: Management of Acute Cerebral Ischemia

Moderators: *Warren R. Selman, Daryl R. Gress*

Panelists: *Jeffery Sunshine, Robert W. Tarr, Robert L. Macdonald*

*continued on page 13*



*Bell Tower. Photo courtesy of the Dallas Convention & Visitor Bureau.*

**Luncheon Seminar 07: Surgical and Endovascular Coding for Neurovascular Procedures and Critical Care**

Moderators: *Issam A. Awad, John J. Connors III*  
Panelists: *John D. Barr, Paul Joseph Camarata*

**Luncheon Seminar 08: Intracerebral Hemorrhage**

Moderators: *Joseph M. Zabramski, Michael P. Marks*  
Panelists: *Ralph G. Dacey Jr., S. Claiborne Johnston*

**Luncheon Seminar 09: Practical Considerations in Unruptured Intracranial Aneurysms**

Moderators: *Joshua B. Bederson, Robert D Brown Jr.*  
Panelists: *Charles W. Kerber, Joseph A. Horton, Fredric B. Meyer*

**Luncheon Seminar 10: Management Options in Occlusive Cervical Carotid Disease**

Moderators: *Robert E. Harbaugh, George P. Teitelbaum*  
Panelists: *Ronald P. Benitez, Avery J. Evans, Joshua B. Bederson*

**Presidential Address 2-2:30 PM**

Jacques E. Dion of ASITN

**Scientific Symposium II 2:30-4 PM**

**Current Controversies in the Management of Arteriovenous Malformations**

Moderators: *Duke S. Samson, Charles W. Kerber*  
Pathophysiology of Cerebral and Spinal Arteriovenous Malformations, *Philip E. Stieg*  
Current Status of Endovascular Management—New Embolic Agents, *Alex (Alejandro) Berenstein*  
Surgical Management of Cerebral AVMs, *H. Hunt Batjer*  
Strategies for the Management of Spinal AVMs, *Karel G. TerBrugge*  
Radiosurgical Innovations in the Management of Cerebral Arteriovenous Malformations, *David W. Andrews*  
Outcomes of Various Endovascular, Surgical, and Radiosurgical Management of Arteriovenous Malformations, *Robert E. Harbaugh*  
Case Presentations and Questions

**Beverage Break and Poster Viewing 4-4:30 PM**

**Oral Presentations 4:30-5:30 PM**

**Bayer Award Presentation 5:30-5:45 PM**

**Poster Award Presentation 5:45-6 PM**

**Wine and Cheese Reception and Poster Viewing 6-7 PM**

Plan to join attendees at the Wine and Cheese Reception in the Exhibit Hall. During this reception you will have the opportunity to view the latest advances in technology and view the scientific poster presentations that have been selected for display at the meeting. Visit with colleagues and enjoy a beverage and light hors d'oeuvres prior to heading out for the evening.

**Tuesday, February 5, 2002**

**Scientific Symposium III 8-10 AM**

**Considerations in Ischemic and Hemorrhagic Stroke**

Moderators: *Warren R. Selman, John J. Connors III*



*White Rock Lake. Photo courtesy of the Dallas Convention & Visitor Bureau.*

Biology and Molecular Basis of Artherosclerosis, *Adel M. Malek*  
Ischemic Stroke—Medical Therapy, *Anthony Furlan*  
Ischemic Stroke and Thrombolysis: Limitations, *Warren R. Selman*  
Hemicraniectomy: Current Status, *Christopher S. Ogilvy*  
Management of Hemorrhagic Stroke, *Joseph M. Zabramski*  
Future Treatment of Ischemic and Hemorrhagic Stroke: Where Are We Going? *L. N. Hopkins III*  
Case Presentations and Questions

**Beverage Break and Poster Viewing 10-10:30 AM**

**Oral Presentations 10:30-NOON**

**Luncheon Seminars NOON-2 PM**

*(Advanced registration is required for all Luncheon Seminars.)*

**Luncheon Seminar 11: Management of the Poor Grade Aneurysm Patient**

Moderators: *Jacques J. Morcos, Charles A. Jungreis*  
Panelists: *B. Gregory Thompson Jr., John Pile Spellman*

*continued on page 14*

## Program for CV Section Meeting (continued from page 13)

### Luncheon Seminar 12: Management of Dural AVMs

Moderators: Daniel L. Barrow, Gary M. Nesbitt  
Panelists: Philip M. Meyers, Joel D. MacDonald, Pierre Gobin

### Luncheon Seminar 13: Spinal Neurointerventional Procedures: Indications and Techniques

Moderators: In Sup Choi, Mary E. Jensen  
Panelists: John M. Mathis, Robert A. Mericle

### Luncheon Seminar 14: Management of Deep and Brainstem AVMs

Moderators: Peter A. Rasmussen, Karel G. TerBrugge  
Panelists: H. Hunt Batjer, Michael P. Marks

### Luncheon Seminar 15: Cerebral Revascularization

Moderators: Michael T. Lawton, Christopher F. Dowd  
Panelists: Christopher M. Loftus, Brian L. Berger

### Luncheon Seminar 16: Intraoperative Adjuncts to Neurovascular Procedures

Moderators: Robert H. Rosenwasser, Joseph A. Horton  
Panelists: William O. Bank, E. Sander Connolly Jr., William L. Young

### Luncheon Seminar 17: Management of Paraclinoid Lesions

Moderators: Joshua B. Bederson, Charles M. Strother  
Panelists: John Deveikis, Thomas A. Kopitnik Jr.

### Luncheon Seminar 18: Management of Posterior Circulation Aneurysms

Moderators: Arthur L. Day, Alex (Alejandro) Berenstein  
Panelists: Allan J. Fox, Neil A. Martin

### Luncheon Seminar 19: Management of Intercranial Occlusive Disease: Surgical and Endovascular Options

Moderators: Lee R. Guterman, Randall T. Higashida  
Panelists: Donald W. Larsen, Adel M. Malek, David W. Newell

### Luncheon Seminar 20: Surgical and Endovascular Coding for Neurovascular Procedures and Critical Care

Moderators: Issam A. Awad, John J. Connors III  
Panelists: Cameron G. McDougall, Nick Chandler

### Presidential Address

2-2:30 PM

H. Hunt Batjer

### Hotel Reservation Deadline

The AANS/CNS Section on Cerebrovascular Surgery & ASITN have negotiated special rates at the Hotel InterContinental for attendees of the meeting in Dallas. Reservations must be made on or before Friday, December 28.



Dallas. Photo courtesy of the Dallas Convention & Visitor Bureau

### Scientific Symposium IV

2:30-4 PM

#### Aneurysmal Subarachnoid Hemorrhage 2002

Moderators: H. Hunt Batjer, Charles M. Strother  
Endovascular Advances in the Management of Aneurysmal SAH, Fernando Vinuela

Surgical Advances in the Management of SAH, Duke S. Samson, Intraoperative Adjuncts and Advances, Christopher M. Loftus, Vasoplast: Are We Winning the Battle? Robert H. Rosenwasser  
Future Directions in the Neurovascular ICU, Daryl R. Gress  
Case Presentations and Questions

### Beverage Break and Poster Viewing

4-4:30 PM

### Oral Presentations

4:30-6 PM

continued on page 15

## Early Bird Registration

Watch your mail in November for the preliminary program. The early bird registration deadline is Friday, December 28, 2001.

For meeting information visit [www.neurosurgery.org](http://www.neurosurgery.org).

# Hot Topics Presented in Toronto

By Murat Gunel, MD

The cerebrovascular component of the Scientific Session at the 2001 AANS Annual Meeting in Toronto was a great success. Organized by Jacques Morcos, MD, the cerebrovascular program included outstanding presentations on a variety of hot topics.

The first presentation was titled "Integration of Interventional Neurovascular Training into Neurosurgical Training" and was presented by Thomas Origitano, MD, and Harish Shownkeen, MD. Given the on-going discussions on this important topic, this talk was timed perfectly.

In another address reporting the results of a multicenter trial on efficacy of endovascular treatment in symptomatic vasospasm, Stanley Kim, MD, and others reported highly encouraging results combining endovascular treatment with maximal medical treatment to improve patient outcome. Trials like this are now setting the pace to prophylactic endovascular treatment options in angiographic vasospasm in patients prior to onset of symptoms. I am sure we will be hearing more on this topic in September at the CNS meeting in San Diego.

Other presentations included angiographic analysis of clip revision techniques from the Emory group and treatment options for intracranial vertebral artery dissecting aneurysms by the UCLA group.

The presentation by Antonio A.F. De Salles, MD, from the UCLA group on combined embolization and stereotactic radiosur-

gery for the treatment of large volume, high risk AVMs started a lively and constructive discussion over the treatment of this difficult group of patients. The discussion focused especially on the potential of delayed hemorrhage risk from the embolized portion of these AVMs. These lesions continue to challenge cerebrovascular surgeons and we will most likely see further discussions on this subject in future meetings.

Notwithstanding all these outstanding presentations, the highlight of the program was the spectacular Donaghy Lecture given by Roberto Heros, MD. In his talk titled "Changes in Cerebrovascular Practice: Evolution or Revolution," Dr. Heros discussed his own experience with many difficult cases: the good, the bad and the ugly. He presented the lessons he learned throughout his practice in a very systematic fashion and it was a pleasure to hear such an honest and straightforward presentation. His thoughtful and clear lecture was useful to the whole audience, from the most junior residents to the most senior surgeons.

A special symposium concluded the program. Three distinguished surgeons reflected on three major areas of cerebrovascular surgery: Hunt Batjer, MD, on intracranial aneurysms, Neil Martin, MD, on AVMs and Issam Awad, MD, on carotid occlusive disease.

As our scientific session meetings keep outdoing the previous ones, we look forward to the Section's scientific program in San Diego.

## Program for CV Section Meeting (continued from page 14)

### Wednesday, February 6, 2002

**Lussenhopp Lecture** 8-8:30 AM

*Gerard R. Debrun*

**Scientific Symposium V** 8:30-10 AM

#### The Incidental and Unruptured Aneurysm

Moderators: *Joshua B. Bederson, Michel E. Mawad*

Implications for Therapeutic Intervention, *David George Piegras*

Surgical Considerations, *Issam A. Awad*

Endovascular Considerations: Hemodynamic Considerations, *Ajay K. Wakhloo*

A Comparison of Surgical and Endovascular Therapy for Unruptured Aneurysms, *S. Claiborne Johnston*

Case Presentations and Questions

**Beverage Break and Poster Viewing** 10-10:30 AM

**Oral Presentations** 10:30-NOON

**Closing Remarks** NOON-12:15 PM

### Format Changed At Your Request

The Scientific Program Committee for the Joint Annual Meeting carefully reviewed the evaluations and your comments. The biggest request in the scientific symposiums was for more time for case presentations and time dedicated to questions and answers. We have made changes to the format to enhance this very important aspect of the meeting. We look forward to hearing your comments on the new format!



American Association of Neurological Surgeons

# Application for Membership

## AANS/CNS Section on Cerebrovascular Surgery

(Applications also may be submitted electronically in part, please see <http://www.neurosurgery.org>)



### I. Biographical Material

Name: \_\_\_\_\_

Home Address: \_\_\_\_\_

Office Address: \_\_\_\_\_

Business Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

### II. Category of Membership Requested

Active       Candidate       International       Adjunct/Corresponding

### III. Formal Neurosurgical Training

Name/location of training program: \_\_\_\_\_

Date of completion or expected date of completion: \_\_\_\_\_ / \_\_\_\_\_

Date of American Board of Neurological Surgery certification: \_\_\_\_\_ / \_\_\_\_\_

Date of fellowship in Royal College of Surgeons (Neurosurgery) of Canada: \_\_\_\_\_ / \_\_\_\_\_

Are you a member of:

American Association of Neurological Surgeons?       Yes       No

Congress of Neurological Surgeons?       Yes       No

### IV. References

Please provide letters of reference from two members of the AANS/CNS Section on Cerebrovascular Surgery highlighting your activity/involvement in cerebrovascular surgery. Indicate below (name and address) from those whom these references will be received: *\*International applicants should contact the AANS for further instructions at [info@aans.org](mailto:info@aans.org).*

1.) \_\_\_\_\_

2.) \_\_\_\_\_

### V. Curriculum Vitae

Please enclose a current Curriculum Vitae with your completed application. Describe your current interest and activities in cerebrovascular surgery (unless clearly evident in your Curriculum Vitae).

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### VI. Membership Fee(s)

Please enclose a check in the amount of \$50 made payable to the AANS/CNS Section on Cerebrovascular Surgery. If you are applying for International membership and you are not a member of the AANS or CNS, please submit a separate check in the amount of \$35 made payable to the CNS.

Once your required materials are received, your application will be reviewed by the Membership Committee and forwarded to the Executive Committee for consideration and approval before final voting/approval by members of the Section.

Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Please return the completed application with your membership fee of \$50 made payable to:  
 AANS/CNS Section on Cerebrovascular Surgery  
 c/o Frank Culicchia, MD  
 Culicchia Neurological Clinic  
 Suite S-750  
 1111 Medical Center Blvd.  
 Marrero, LA 70072

## Notes from the Editor

By Robert M. Friedlander, MD, MA

It is with great pleasure and honor that I take over the position of Editor of the *Cerebrovascular News* from Gregory Thompson, MD. During Dr. Thompson's tenure as Editor, the newsletter was strengthened in content and design. As membership of the CV Section continues to expand, it is increasingly important to maintain timely, effective information on issues impacting our subspecialty. Numerous changes and challenges continue to confront the present and future of our practices. The mission and mandate of the newsletter will be to provide the Section's membership with information regarding important events and issues having direct implications for the care of our patients.

The newsletter will include highlights of the cerebrovascular programs at the AANS, CNS and Joint Section meetings. An issue of primordial importance will continue to be our relationship with the American Society of Interventional and Therapeutic Neuroradiology (ASITN). Over the past several years, the Joint Section of Cerebrovascular Surgery has had combined annual meetings with the ASITN. These meetings have been incredibly successful and provide a direct venue for interaction and challenge.

One of the important challenges we presently face is the question of how to scientifically evaluate in an unbiased and effective manner the merits, advantages and disadvantages of open surgery versus catheter-based therapy for the treatment of neurovascular pathology. Decisions as to how to evaluate these two often-competing therapeutic options are at the forefront of neurosurgical controversy. Among issues to be addressed include: who should perform the trials, when should the trials be performed and what pathology to

subject to a trial. Other questions are: what should be the subject population evaluated in a clinical trial, should it be done on ruptured or unruptured aneurysms, if it is done on ruptured aneurysms, should it be done on good grade and/or poor grade patients, and how long should the patients be followed. All these factors clearly will have important implications for the results of the studies, which will have deep and long-lasting implications for the practice of neurovascular surgery. Therefore, it is of utmost importance that these trials be organized in an extremely thoughtful and unbiased manner, with the aim of providing the best possible information for our patients. Many of these questions are eloquently and authoritatively addressed in this issue's message from our Chairman, Hunt Batjer, MD.

Over the next year several new sections will be added to the newsletter. In the current issue, the "What Would You Do?" section presents a clinical case dilemma. Each Joint Section member will be asked for an opinion via e-mail. Your opinion can also be faxed directly to my attention in the form provided within the newsletter. Your participation in this survey will help us to gain insight into current practice modalities regarding controversial topics. The first case regarding the treatment of sub-centimeter multiple incidental aneurysms can be found in the current issue of the newsletter on page 6. A "Letter to the Editor" section will also be added to provide a forum for your feedback and comments.

I look forward to my tenure serving you as Editor. Please do not hesitate to contact me. Send your comments or suggestions for the Editor to: [rfriedlander@rics.bwh.harvard.edu](mailto:rfriedlander@rics.bwh.harvard.edu).



### RUNN 2001

### REVIEW AND UPDATE IN NEUROSCIENCE FOR NEUROSURGEONS

October 20-27, 2001

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## Bayer Research Grants Offered

**Description:** Two \$25,000 grants are available for original research in cerebral ischemia, cerebral protection, neuronal recovery or outcomes.

**Eligibility:** Limited to physicians in the U.S. and Canadian institutions who have completed formal neurosurgical training and have been in academic staff positions for no longer than four years by the time of fellowship activation (July of each year).

**Sponsor:** AANS/CNS Section on Cerebrovascular Surgery and Bayer Corporation, Pharmaceutical Division.

**Deadline:** May 1, 2002

**Contact:** Bayer Fellowship Coordinator  
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