

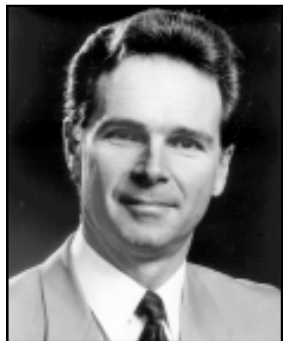


Cerebrovascular Surgery

Editors: Philip E. Stieg, PhD, MD, & Greg Thompson, MD

Issue 5 ♦ Volume 1

Chairman's Message: The Ferrari of Vascular Societies



Steven L. Giannotta, MD

In 1938, a poorly trained engineer, but moderately successful racecar driver and race team manager, quit the employ of Alfa Romeo. In 1947, he put his name on a racecar and within 5 years had set a standard that would made Ferrari synonymous with international auto racing. Enzo Ferrari's desire to be his own boss ultimately resulted in an organization that produced more of a cultural icon than simply a line of automobiles.

As with all successful endeavors, many contributed. Engines, the heart of the matter, were designed by such luminaries as Jano, Colombo, and Lampredi. Design houses and Carozzeria produced such enduring models as the 250 GT SWB, Testa Rossa, GTO, Dino, Daytona and Mondial. Another human component, the *piloti*, was as integral as any in establishing what became an unparalleled record of success.

Who gets to drive a Ferrari? Famous people like Ascari, Chinetti, Fangio, Hill, Gurney, Andretti, Lauda, Scheckter and Villeneuve. In the early years these men helped establish Ferrari, in the latter years, it was the other way around.

In 1975, the AANS and CNS encouraged the establishment of the Joint Section of Cerebrovascular Surgery for the purpose of advising the parent organizations on issues related to this burgeoning discipline and to provide organizational structure for neurosurgeons who professed similar interest. J. Garber Galbraith was our first chairman, establishing a lineage that would include such luminaries as Sundt, Patterson, Tew, Ojemann, Robertson, Rhoton, Peerless and others who set a benchmark for excellence.

Inevitably, setbacks such as the Bypass Study and the encroachment of endovascular techniques sapped morale. However, quality leadership prevailed revitalizing our membership and our mission. Even Ferrari, the winner of more Grand Prix than any other make, went almost two decades without a championship.

Streamlines, revved up, with a superstar pit crew, the Joint Section on Cerebrovascular Surgery takes on the following challenges:

- Establish curriculum guidelines for vascular training during residency
- Establish curriculum guidelines for vascular fellowships
- Establish curriculum guidelines for endovascular training without interventional colleagues

- Reengineer the neurosurgeon's role in the management of stroke
- Draft a position paper on the management of AVMs
- Facilitate endovascular training for neurosurgeons
- Advise NIH on future funding
- Provide premier scientific symposia for the expression and exchange of new ideas
- Encourage private funding for vascular research

Our current Executive Council reads like a "Who's Who" of vascular neurosurgery: Hopkins, Loftus, Awad, Harbaugh, Mayberg, Barrow, Selman, Stieg, Rosenwasser, Ogiliv, Solomon, Bederson, Bailes, Gross, Higashida and senior advisors Flamm, Samson, Piepgra and Spetzler. In April, I will turn over the wheel to Christopher Loftus, MD.

I leave with the distinct impression of having been called out of the grandstands to drive the new F50. To all our membership, thanks for letting me take her for a spin.

Respectfully,

Steven Giannotta, MD
Chairman, 1996-1998

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CV Section Holds First Joint Meeting with the American Society of Interventional and Therapeutic Neuroradiology

Robert E. Harbaugh, MD, FACS

The Joint Section on Cerebrovascular Surgery, in conjunction with the American Society of Interventional and Therapeutic Neuroradiology (ASITN), had a very successful Annual Meeting recently in Lake Buena Vista, Florida. More than 620 registrants attended the Meeting at the Hilton Hotel from February 1 through February 4, 1998.

Following an opening reception Sunday evening, I along with colleague Michel E. Mawad, MD, of ASTIN, was pleased to welcome attendees to the Scientific Program on Monday morning. The first scientific session on the basic science of cerebrovascular disease was chaired by Issam Awad, MD, and Alex Berenstein, MD. An excellent program covered recent developments in a number of areas. Angiogenesis and trans-catheter drug delivery were reviewed by James Berry, MD. Renu Vermani, MD, discussed the basic science of endothelial responses to implantable devices. Ajay Wakhloo, MD, made a fascinating presentation on hemodynamics after intra-arterial stent placement, and Murar Gunel, MD, discussed recent developments in the molecular genetics of cerebrovascular disease. The basic science of vascular control and signaling was discussed by Ralph Dacey, MD, and Mark Mayberg, MD, reviewed his work on radiation effects on cerebral arteries.

Following this basic science session, a panel discussion on the treatment of aneurysms was chaired by Fernando Vinuela, MD, and H. Hunt Batjer, MD. Drs. Jacques Moret, Arthur Day, Van Halbach, and Daniel Barrow discussed a number of interesting aneurysm cases from a micro-neurosurgical and endovascular standpoint.

Following this panel discussion, the Joint Section on Cerebrovascular Surgery Presidential Speaker, Albert L. Rhoton, Jr., MD, presented a review of some of his pioneering work on the microsurgical anatomy of the brain. His lecture, entitled "Small Arteries, Large Deficits: Strategically Situated Perforating Arteries," was a highlight of the meeting.

After the presidential speaker, ten luncheon seminars on numerous cerebrovascular disease topics were very well attended.

In the afternoon, excellent abstracts from the Cerebrovascular Section and the Interventional Neuroradiologists were presented.

A wine and cheese reception and formal poster viewing session were carried out on Monday evening. The posters were of very high quality, and the interaction with the poster presenters added to the scientific value of the meeting.

On Tuesday, the plenary session was devoted to innovations in the management of cerebrovascular disease. This session was chaired by Philip E. Stieg, MD, and Michel Mawad, MD. Charles Kerber, MD, discussed blood flow hemodynamics, and Hannes Seissel, MD, discussed models, a topic on which he has been a leading investigator. Robert Tarr, MD, lectured on innovations in surgical planning and intraoperative cerebral protection strategies, and Steven Giannotta,

MD, presented his extensive experience with innovative surgical approaches to cerebrovascular lesions.

Following this session, a panel discussion on AVM's was moderated by Luc Picard, MD, and Duke Samson, MD. Drs. Philip Purdy, Roberto Heros, In Sup Choi, and Gary Steinberg reviewed a number of interesting vascular malformation cases and expressed their opinion regarding the appropriate treatment approach. A vigorous and enlightening discussion ensued.

Following the AVM panel discussion, the presidential speaker for the American Society of Interventional and Therapeutic Neuroradiology, Charles L. Bosk, PhD, made a very interesting presentation on how physicians deal with the often difficult psychological demands of their profession. This was a thought-provoking and very well received presentation.

Ten different luncheon seminars on various cerebrovascular disease topics were well attended. The luncheon seminars, once again, were one of the most popular aspects of the meeting. Following the luncheon seminars, scientific abstracts from both the Cerebrovascular Section and ASITN were again presented. These abstracts covered every aspect of cerebrovascular disease diagnosis and treatment.

On the third day of the meeting, the plenary session dealt with outcomes analysis of cerebrovascular disease. I was the chair for the Cerebrovascular Section, and Van Halbach, MD, represented ASITN. Karel Terbrugge, MD, presented a risk analysis of cerebral arteriovenous malformations. David Wiebers, MD, presented his work on the natural history of unruptured intracranial aneurysms. Randall Higashida, MD, then discussed a risk analysis of atherosclerotic disease and early results of angioplasty and stenting for carotid. Joseph Zabramski, MD, presented a very nice analysis of factors needed for adequate outcomes assessment of vascular malformations of the brain. Christopher Ogilvy, MD, then discussed outcomes analysis of aneurysm treatment by presenting his data on a grading scale for ruptured and unruptured aneurysms. Harold Pikus, MD, discussed a multivariate analysis of risk factors in patients undergoing carotid endarterectomy and compared the results of endarterectomy with the early reports of patients undergoing angioplasty and stenting for carotid artery disease.

Following this session, the honored guest of the Cerebrovascular Section, Professor Hiroshi Abe, gave a special lecture on the surgical treatment of Moyamoya disease. This was an excellent presentation, highlighting Professor Abe's considerable experience in the treatment of this entity. We were very honored to have Professor Abe there as our guest.

Continued on page 3

First Luessenhop Lectureship Given at Section Meeting

Robert H. Rosenwasser, MD, FACS

Several years ago the concept was developed to sponsor a lectureship in endovascular therapy. The idea was explored and the lectureship was later endowed and funded by Boston Scientific and Target Therapeutics.

After extensive research, investigation and meetings, the decision was made to name this project the Alfred J. Luessenhop, MD, Lectureship in Endovascular Therapy. Dr. Luessenhop was the first individual to embolize a cerebral arteriovenous malformation in 1960, which was reported in the *Journal of the American Medical Association*. As a neurosurgeon, he made many contributions to vascular neurosurgery, along with the understanding of hemodynamics of intracranial hemorrhage as they relate to cerebral AVM's.

The Selection Committee was comprised of Robert H. Rosenwasser, MD, and Randall Higashida, MD. The first named lecturer was Alex

Berenstein, MD, of Beth Israel Medical Center, in New York City. Dr. Berenstein gave an exciting and extensive review of the development of vascular surgery. The forum provided both an excellent tribute to Dr. Luessenhop's efforts in the past and also stimulated interest for continued growth and communication between neurosurgery and interventional radiologists.

This lectureship will hopefully continue in perpetuity. In addition, a resident award in endovascular therapy will be added to this endowment. The lectureship will be given annually at the Joint Section Annual Meeting.

The Joint Section would like to take this opportunity to thank both Boston Scientific and Target Therapeutics for their generous contribution to the growth of this field.

First Joint Meeting *(continued from page 2)*

After Professor Abe's presentation, Randall Higashida, MD, and Christopher Loftus, MD, chaired a panel discussion on the cerebral ischemia. Drs. Stanley Barnwell, Julian Bailes, Fong Tsai, and Fredric Meyer discussed numerous cases of patients with ischemic cerebrovascular disease, and gave a very nice overview of the range of treatment modalities available for patients with these problems.

Following the panel discussion on ischemia, the Bayer award recipients for 1997, E. Sander Connelly, MD, and N. Nicole Moayeri, MD, reviewed their research activities, which have been sponsored by the Bayer Award.

This Meeting also featured the first Luessenhop Lecture. The Luessenhop Lecture is funded by an award from Boston Scientific and Target Therapeutics. Robert Rosenwasser, MD, outlined the development of this lectureship, and also briefly reviewed the considerable accomplishments of Dr. Luessenhop, who was in attendance. The first Luessenhop lecturer, Alex Berenstein, MD, delivered a fascinating talk on "Endovascular Neurosurgery: The Birth of a New Specialty." This was certainly a highlight of the meeting.

Two plenary abstract sessions were held in the afternoon, and the Meeting was concluded with closing remarks by myself and Dr. Mawad.

This proved to be an extremely successful Meeting from every standpoint. It was well attended, and the attendees seemed very enthusiastic about the content. The scientific program was an up-to-date review of basic and clinical sciences involved in patients with cerebrovascular disease. Numerous scientific abstracts and posters were presented. The Meeting also served as a landmark for the Joint Section

on Cerebrovascular Surgery and the American Society of Interventional and Therapeutic Neuroradiology. This was an opportunity for cerebrovascular neurosurgeons and interventional neuroradiologists to share similar interests, clinical problems, and patients. The scientific exchange allowed by a joint meeting was advantageous for all.

The next joint meeting will be held in February, 1999, at the Opryland Hotel in Nashville. This will be chaired by Philip Stieg, MD, for the Cerebrovascular Section, and Randall Higashida, MD, for ASITN.

Mark Your Calendar!!

The 1999 Annual Meeting of the Joint Section on Cerebrovascular Meeting will be January 31–February 3 at the Opryland Hotel in Nashville, Tennessee. This will be a joint meeting with the American Society of Interventional and Therapeutic Neuroradiologists, and will immediately follow the American Heart Association's Stroke Council's Annual Meeting. Hope to see y'all there!

Secretary's Corner

Highlights of Minutes of Executive Council Meeting

Tuesday, February 3, 1998, Orlando, Florida



Issam A. Awad, MD, Msc, FACS
Secretary-Treasurer

The meeting of the CV Section Executive Council was called to order by Section Chairman Dr. Giannotta, in the presence of Drs. R. Harbaugh, C. Loftus, W. Selman, P. Stieg, R. Rossenwasser, N. Hopkins, C. Gross, P. Brott, J. Zabramski, M. Mayberg, C. Ogilvy, D. Samson, I. Awad, J. Bederson, R. Higashida, and D. Piepgras. The minutes from the New Orleans meeting dated September 29, 1997 were approved.

ASITN Joint Meeting/Business

The first item of business included discussions with representatives from the American Society of Interventional and Therapeutic Neuroradiology (ASITN) Executive Committee, including Drs. Mawad, Tomsick, and Bernstein. They were thanked for their collaboration in putting together this joint meeting in Orlando, and were commended for the tremendous success of the meeting.

Dr. Harbaugh and Dr. Mawad reviewed figures of attendance at the meeting, and a resolution was passed formally congratulating them on their diligent efforts at organizing and executing this most successful meeting of the two societies. It was agreed that the January 1999 meeting, which will be held in Nashville, Tennessee, should also include joint scientific sponsorship by both organizations.

The ASITN was invited to designate a meeting Scientific Co-Chairman to work with Dr. P. Stieg on organizing and executing that Meeting. Dr. W. Selman was formally designated Associate Meeting Chairman, in charge of continuing medical education activities, and would proceed as Annual Meeting Chairman for the Fifth Annual Meeting in the year 2000. Dr. Selman was asked to start investigating meeting venues. For the foreseeable future, the JSCVS Annual Meeting would continue to be held at the same venue and in the same week as the American Heart Association Stroke Meeting.

The ASITN Executive Council representatives were also invited to nominate an Ex-Officio Liaison to the JSCVS Executive Council, noting that Dr. Higashida has served in this role for many years, contributing greatly to improved communications between the two societies and to enhanced professional and scientific collaborations. The ASITN Executive Council also indicated that they will invite the JSCVS to nominate a similar liaison to serve as Ex-Officio Member on the ASITN Executive Council. The ASITN colleagues were thanked for their contributions, and the remainder of the meeting was conducted with a JSCVS quorum as listed above.

Secretary/Treasurer's Report

Dr. Awad presented the Secretary/Treasurer's report with current statement of Section assets, along with latest figures of growth in Section membership. Dr. Ogilvy was thanked for his excellent efforts in the past three years at enhancing Section membership. The JSCVS has more than doubled its membership in the past four years, and has experienced the greatest relative growth in membership of any other Joint Section of the AANS/CNS.

The treasury is now much more complex than it was a few years ago, involving more substantial assets, and Annual Meeting enterprise involving much financial administration and fund raising, as well as an increasing number of special funds, fellowships, etc., administered through the Section. As such, the Long Range Planning Committee recommendations to separate the office of Secretary and Treasurer were discussed in detail and were unanimously accepted. It was therefore resolved to introduce a new Rule and Regulation change reflecting the new office of Treasurer. It was further resolved that the officers of Secretary and Treasurer would each serve two-year terms, which are staggered. It was also felt that the creation of the new office and the shortened terms (from three years to two years) would allow a greater and more dynamic involvement of Section members in officer positions. These motions were duly seconded and approved unanimously. The newsletter editor, Dr. Stieg, was instructed to circulate the change of Rules and Regulations in the newsletter, in preparation for full membership vote at the general business meeting in April, 1998, in Philadelphia.

Task Force Reports

Dr. Awad also presented a summary of the Long Range Planning Committee. Discussion was then undertaken of the various task force reports. Dr. Selman would review the proposed SMART public relations program on stroke, and will present it to the JSCVS Executive Council for approval in April, 1998.

Endovascular Fellowship Program

The Section has been asked to develop and administer the Endovascular Fellowship Program sponsored by the Joint Officers of the AANS/CNS. A working committee headed by Dr. Mayberg, and including Drs. Rosenwasser and Higashida, was asked to proceed with implementing plans to fund the first two fellowships in July, 1998. In addition to \$90,000/year allocated by the AANS/CNS Joint Officers, extramural funds would be sought to supplement each fellowship award. Dr. Mayberg was asked to present a specific plan and timetable of implementation in April 1998.

The role of the Joint Section in articulating residency program educational curriculum in cerebrovascular disease was discussed, and also the new charge of articulating requirements and objectives of subspecialty fellowships. Pending formal invitation by the AANS/CNS Joint Officers, along with a defined charge, Dr. Giannotta indicated that the Section is prepared to appoint special committees to carry out these tasks.

Continued on page 5

Secretary's Corner (continued from page 4)

Section Sessions at AANS/CNS Annual Meetings

Dr. Bederson presented a report on preparations for the Section session in conjunction with the AANS Annual Meeting in Philadelphia in April, 1998. Dr. Robert Ojemann will be the Donaghy Lecturer. Dr. Rosenwasser presented plans for the two Section sessions in conjunction with the CNS Annual Meeting in Seattle in October, 1998. Outstanding panel presentations have been organized addressing topics of Results and Outcomes in one session, and Management of Aneurysmal Subarachnoid Hemorrhage in the second session. There will be General Business Meetings of the Section in conjunction with both the Philadelphia and Seattle meetings.

Outcomes and Guidelines Committee

Dr. Harbaugh presented an update report on activities of the Outcomes and Guidelines Committee. Prospective data entry will begin in February, 1998 for the Aneurysm Outcome Project, and Dr. Harbaugh was congratulated on bringing this extremely complex project to constructive fruition. In response to a request by the American Heart Association Stroke Council Executive Committee, multidisciplinary management guidelines for vascular malformations of the brain are currently being compiled. Dr. Ogilvy was asked to head a committee including Drs. Rosenwasser, Stieg, and Awad to interface with the AHA writing group in the preparation of this document.

Scientific Committee

Dr. Gross presented a report of the scientific ad-hoc committee, underlining the anticipated significant increase in funding by NINDS in upcoming years. Neurosurgeons were encouraged to get more involved in applying for such NIH grants. Continued efforts are being made to prioritize funding of multidisciplinary stroke initiatives and regional consortia.

AHA Stroke Council

Dr. Mayberg presented the report of the AHA Stroke Council Executive Committee. He will be the Scientific Program Chairman for the upcoming Stroke Meeting. Dr. Mayberg was congratulated on his efforts in this area, and it was requested that Dr. Stieg and his committee work closely with him on coordinating scientific program for the JSCVS and AHA meetings in Nashville. Dr. Awad will begin serving on the AHA Stroke Council Executive Committee in October, 1998. Dr. Nick Hopkins is the second surgical representative on that committee at the present time.

Nominating Committee

Drs. Hopkins, Giannotta and Loftus presented the Nominating Committee recommendations as follows: Dr. G. Thompson for a three-year term as Newsletter Editor commencing in April 1998 (to work closely with Dr. Stieg for the first year of this term, including home page activities); Dr. J. Bederson as Membership Chairman for a three-year term commencing in April 1998 (to work closely with Dr. Ogilvy on transition of membership services and pending applications); Dr. C.

Ogilvy as Member-at-Large of the Executive Council for a three-year term commencing in April 1998; Dr. R. Harbaugh as nominee for the Office of Treasurer (pending approval of new Rules and Regulations) for a two-year term commencing in April 1998; Dr. I Awad as Chairman-Elect of the Section for a two-year term commencing in April 1998 (to be served concurrently with Dr. Awad's last year as Section Secretary ending in April 1999). This slate of nominees was seconded and approved unanimously by the Executive Council. It will be presented for full membership vote at the General Business Meeting of the Section in April 1998 in Philadelphia.

There being no additional old or new business raised, Dr. Giannotta thanked members of the Executive Council for their diligent efforts during another tremendously successful year of Section activities. The meeting was adjourned in a spirit of vigor and enthusiasm, and the recognition that the Cerebrovascular Section is more vibrant than ever facing unique opportunities and challenges in the years ahead.

Membership Report

Christopher S. Ogilvy, MD
Membership Chairman

Membership in the Joint Section on Cerebrovascular Surgery continued to grow over the past year. In 1994, there were approximately 250 members in the Section. By 1995 this number had grown to 291, and by the end of 1996 to 398. At present, there are 454 members in the Joint Section on Cerebrovascular Surgery. This increase in membership represents the largest percentage increase of any of the AANS/CNS Joint Sections. We anticipate continued growth of our Section by extending associate memberships to neurologists and interventional neuroradiologists. Efforts are also being made to extend membership to a larger number of foreign members. Any members who know of potential candidates for the Joint Section should use the application form attached to the newsletter to invite these colleagues to join the Joint Section. In April 1998, Dr. Joshua Bederson will assume leadership of the membership committee. Please contact him with your questions or concerns. Thank you again for your continued interest.



PROPOSED CHANGES IN SECTION RULES AND REGULATIONS*

Approved by Unanimous Resolution of the Executive Council
(more than ten signatories) on February 3, 1998

ARTICLE II

Membership Qualifications

Section 1

(b) Senior Member. Senior Membership may be extended to an active Member who, upon reaching the age of 65 years **and/or having retired from their practice**, requests in writing to the Secretary-Treasurer to become a Senior Member. This requires approval of the Council and approval by 75% of the Active Membership attending the next business meeting.

(c) Candidate Member. Candidate Membership may be extended to a resident **or fellow** in an approved neurological surgery residency program who is also a Resident Member of the AANS and/or Congress of Neurological Surgeons. When the candidate subsequently meets the appropriate criteria and upon receipt of the required application and references, Active Membership will be considered by the Membership Committee as outlined in Article VII —Section 1.c.

ARTICLE IV

Officers

Section 1

The Officers of the Section shall be a Chairman, Chairman-Elect, a **Secretary, and a Treasurer**. The Chairman and Chairman-Elect shall serve a term of two years. The Secretary **and Treasurer are** elected for **staggered two year terms**.

ARTICLE V

Duties of Officers

Section 3

~~Secretary-Treasurer.~~ It shall be the duty of the Secretary-Treasurer to keep a true record of the proceedings of the meetings, to preserve all books, papers and articles that belong to the Section, keep a registry of membership with the date of admission and place of residence of all members. The Secretary-Treasurer shall conduct all correspondence of the Section. The Secretary-Treasurer shall send notice of all meetings to each member at the appropriate time and notify all Members of Committees of appointments. The Secretary-Treasurer shall act as Secretary of the Executive Council. ~~Funds will be dispersed for the ordinary expenses of the Section as well as other expenses when ordered by the Executive Council. An accurate record of all expenses will be kept by the Secretary-Treasurer.~~

Section 4

Treasurer. It shall be the duty of Treasurer to maintain full and responsible accounting of Section revenues, expenses and assets. The Treasurer will serve as Financial Officer for the Section Annual Meeting, and for all fundraising activities of the Section. Funds will be dispersed for the ordinary expenses of the Section as well as other expenses when ordered by the Executive Council. An accurate record of all expenses will be kept by the Treasurer.

ARTICLE VI

Meetings

Section 1

(a) Meetings of the Executive Council and general membership shall be held in conjunction with the annual meetings of the American Association of Neurological Surgeons and the Congress of Neurological Surgeons. A meeting of the Executive Council shall also occur during **either** the meeting of the Stroke Council of the American Heart Association **or the annual meeting of the Joint Section on Cerebrovascular Surgery**.

ARTICLE VII

Committees

Section 1

(d) The Chairman with the approval of the Executive Council will appoint a separate Program Committee for Section Meetings at the Annual Meeting of the AANS and CNS **as well as any free-standing meeting of the Joint Section**. Each Program Committee for the Annual Meetings of the parent organizations will consist of three members. The Program Committee Chairperson shall serve as an ex-officio member of the Executive Council if he/she is not a member of the Council.

The Program Committee of the free-standing meetings shall consist of a Chairperson, and an Associate Chairperson who will assume the duties of Chairperson for the meeting of the following year. The number of members appointed to the Program Committee shall be appropriate to carry out duties such as continuing medical education, local arrangements, abstract review, working budget, and preliminary program.

Each of the Program Committees will collaborate with the Annual Meeting and Scientific Program Committees of the respective parent organizations including the AANS, CNS and Stroke Council.

*Highlighted text has been added to the Rules and Regulation, while crossed-out text was deleted.



Joint Section on Cerebrovascular Surgery of the AANS and CNS



Application for Membership

A. Biographical Material

Name: _____
 Birth Place: _____ Birth Date: _____
 Home Address: _____ Office Address: _____

 Fax: _____ Phone: _____ Fax: _____ Phone: _____

B. Memberships and Certificates

Date of Completion of Formal Neurosurgical Training _____/_____
 Date of American Board of Neurological Surgery Certification _____/_____
 Date of Fellowship in Royal College of Surgeons (Neurosurgery) of Canada _____/_____
 Are you a member of:
 The American Association of Neurological Surgeons? Yes ___ No ___
 Congress of Neurological Surgeons? Yes ___ No ___
 American Medical Association? Yes ___ No ___
 Stroke Council of the American Heart Association? Yes ___ No ___

C. References

Please provide letters of reference from two members of the Joint Section on Cerebrovascular Surgery highlighting your activity/involvement in cerebrovascular surgery. Indicate below (name and address) from those whom these references will be received:

1) _____
 2) _____

D. Curriculum Vitae

Please enclose a current Curriculum Vitae with your completed application.

E. Describe your current interest and activities in cerebrovascular surgery (unless clearly evident in your Curriculum Vitae).

F. Please enclose a check in the amount of \$50.00, made payable to The Joint Section on Cerebrovascular Surgery of the AANS/CNS.

G. As soon as all required materials are received, your application will be reviewed by the Membership Committee, and submitted to the Executive Committee for consideration and approval before final voting/approval by members of the Joint Section.

H. Completed application, Curriculum Vitae, letters of reference, and application fee should be mailed directly to:

Joint Section on Cerebrovascular Surgery
 Dept 77-2418
 Chicago, Illinois 60678-2418

 Signature of Applicant

Cerebrovascular Highlights of the AANS Annual Meeting

Sunday, April 26

Practical Clinics

015 Lateral Approaches of the Transcondylar, Far Lateral and Extreme Lateral Approaches

Director: *Jeffrey Keller, Harry R. Van Loveren*

Faculty: *Mario Zuccarello, Michael Chiocone, Khaled Aziz, Maurali Guthikonda, Troy Paymer, Michael Link*

018 Carotid Endarterectomy: An Interactive Video Clinic

Director: *Robert E. Harbaugh*

Faculty: *Issam Awad, Julian Bailes, Christopher Loftus, Harold Pikus, Philip Stieg*

023 Anterior and Anterolateral Approaches to Tumors and Aneurysms

Director: *Laligam Sekhar*

Faculty: *Donald Wright, Akio Morita, Ann Marie Yost, Ghassan Bejjani, Zachary Levine, Russell Buchanan*

024 Surgical Techniques in Intracranial Aneurysms

Director: *Arthur Day*

Faculty: TBD

Monday, April 27

Breakfast Seminars

101 Aneurysm Clipping: Advanced Techniques

Moderator: *Ralph G. Dacey, Jr.*

Panelists: *Warren Selman, Robert Solomon, Robert Spetzler, H. Hunt Batjer*

118 Cranial Base Approaches to the Posterior Fossa

Moderator: *Steven Giannotta*

Panelists: *Johnny B. Delashaw, Donald Wright, Jack Rock, Chandranath Sen*

119 Establishing Stroke Centers and Stroke Teams

Moderator: *Marc R. Mayberg*

Panelists: *Issam Awad, Julian Bailes, Lee Guterman*

121 Consultants Corner: Cerebrovascular

Moderator: *David George Piepgras*

Panelists: *Roberto Heros, Duke Samson, Daniel Barrou, Robert Rosenwasser*

Plenary Session I

9:45–11:39 AM

701 Failure of Partial Therapy to Reduce the Risk of Hemorrhage from Brain Arteriovenous Malformations. *Philip Porter, Christopher Wallace, Karel terBrugge, Walter Montanera, Robert Kerr, Marcos A. Stefani, Robert A. Willinsky, Discussant: Robert Spetzler*

702 Gamma Knife Radiosurgery for Cerebral Arteriovenous Malformations: A Multi-Institutional Study in Japan. *Masaki Yamamoto, Tatsuya Kobayashi, Hidefumi Jokura, Seiji Fukuoka, Hiromichi Hosoda, Discussant: William Friedman*

Scientific Session I

2:45–5:15 PM

707 Management of Cerebral Vasospasm: Timing of Endovascular Options. *Robert H. Rosenwasser, Jeffrey E. Thomas, Patricia Gannon, Rodney Bell, Dara Jamieson, Discussant: L.N. Hopkins*

Scientific Session II

2:45–5:15 PM

722 Endovascular Cervical Carotid Revascularization.

Lee R. Guterman, Ajay K. Wakhloo, Leo N. Hopkins. Discussant: Robert Harbaugh

724 Factors Associated with Surgical Complications for Basilar Bifurcation Aneurysms: An Analysis of 101 Patients. *Peter LeRoux, Rajiv Sethi, J. Paul Elliott, Gerald Grant, H. Richard Winn, Discussant: John Tew*

Scientific Session IV

2:45–5:15 PM

738 Late Angiographic Follow-up of Surgically Treated Aneurysms: Recurrence, De Novo Formation, and the Fate of Residuals. *Carlos David, A. Giancarlo Vishteh, Michael Lemole, Michael Lawton, Shahnam Partovi, Robert Spetzler, Discussant: Michael Horowitz*

740 The Long-Term Prospective Natural History of Venous Malformations. *Mark McLaughlin, Douglas Kondziolka, Stephanie Lunsford, L. Dade Lunsford. Discussant: Daniel Borrow*

741 Outcome Following Hemorrhage From Brain Arteriovenous Malformations At Presentation And During Follow-Up: Is It Worse Than We Think? *Phillip J. Porter, Christopher M. Wallace, Karel G. ter Brugge, Walter Montanera, Robert A. Willinsky. Discussant: Issam Awad*

746 Ventricular Blood is an Admission CT Variable Which Predicts Poor Clinical Outcome After Aneurysmal Subarachnoid Hemorrhage. *James Conway, Eric Oshiro, Rafael Tamargo. Discussant: H. Hunt Batjer*

Tuesday, April 28

Breakfast Seminars

201 Point: Counterpoint: Basilar Tip Aneurysms - Coil Versus Clip
Moderator: *L.N. Hopkins*

Panelists: *Alex Berenstein, Robert Spetzler*

202 Current Management of Vasospasm

Moderator: *Neal Kassell*

Panelists: *Marc Mayberg, Jay Max Findlay, Michael Levy, Robert Hurst*

213 Correlative Microvascular Anatomy as a Guide to Better Surgery

Moderator: *Arthur Day*

Panelists: *Harry Van Loveren, Evandro DeOliveira, Gazi Yasargil, Walter Grand*

Plenary Session II

9:45–11:20 AM

748 Increased Oxygen Extraction Fraction (OEF) in Symptomatic Patients with Complete Carotid Artery Occlusion Predicts A Subsequent Increased Incidence of Ipsilateral Ischemic Stroke. *Robert Grubb, Williams Power, Collin Derdeyn, Kent Yundt, David Carpenter, Thomas O. Viden, Susanne M. Fritsch. Discussant: Marc Mayberg*

Final Results of North American Symptomatic Carotid Endarterectomy Trial (NASCET)

11:05–11:20 AM

Gary G. Ferguson

Cerebrovascular Section Scientific Session

2:45–5:30 PM

Special Lecture

2:45–3:15 PM

Donaghy Lecture. Evolution in the Understanding and Management of Cavernous Malformations. *Robert Ojemann.*

Scientific Session

3:15–4:45 PM

801 Surgical Approaches to Brain Stem Cavernous Malformations. *Randall Porter, Paul Detwiler, Michael Lawton, Patrick Derksen, Jonathon Baskin.*

802 Multi-Modality Management of High Flow AVMs in Pediatric Patients. *Kevin M. Cockroft, Mary L. Marcellus, Michael P. Marks, Stephen L. Huhn, Gary K. Steinberg*

803 The Endothelin-A Receptor Antagonist TBC 11251 Attenuates Cerebral Vasospasm After Experimental Subarachnoid Hemorrhage: Dose Study. *John Wanebo, Hunter R. Louis, Adam S. Arthur, Neal F. Kassell, Gregory A. Helm*

804 Endovascular Thrombolysis Using Mechanical Snare Fragmentation And Infusion Of Fibrinolytic Agents For Symptomatic And Progressive Combined Dural Sinus And Deep Cerebral Vein Thrombosis. *Matthew F. Philips, Hurst Robert, Linda Bagley, Eric Raps, Grant Sinson.*

805 Mechanism of Radiation-Induced Endothelial Injury. *Marc Mayberg, Keisuke Onoda, Susan London, Mark Johnson, Corinne Gajdusek.*

806 Transfemoral Cerebral Angiography in the Rat. *D. Roxanne Todor, John Perl, Martin Porras-Jimenez, Gerry Bruno, Douglas Chyatte.*

Special Symposium

4:45–5:30 PM

Complications of Intracranial Aneurysm Treatment

Moderator: *Joshua B. Bederson*

Panelists: *David Piepgras, Neil Martin, Robert Ojemann*

Wednesday, April 29

Breakfast Seminars

301 Anterior Circulation Aneurysms

Moderator: *Steven Giannotta*

Panelists: *H. Hunt Batjer, Arthur Day, Jacques J. Morcos, Takanori Fukushima*

302 How I Do It: High Risk Carotid Patients

Moderator: *Donald Q. Quest*

Panelists: *Christopher Loftus, L.N. Hopkins, Robert Spetzler*

303 Perioperative Management of Subarachnoid Hemorrhage

Moderator: *Ralph G. Dacey, Jr.*

Panelists: *Neil Martin, Neal Kassell, Christopher Ogilvy, Philip Stieg*

306 Pediatric Vascular Disorders

Moderator: *Michael Edwards*

Panelists: *Michael Levy, R. Michael Scott, Charles Teo*

308 Management of Vascular Malformations

Moderator: *Edward H. Oldfield*

Panelists: *Daniel Barrow, Werner Hassler, Alex Berenstein, Joshua Bederson*

Scientific Session VI

9:45–11:15 AM

762 Clinical Outcome of Patients with Subarachnoid Hemorrhage (SAH) with Vasospasm is the Same as Patients without Vasospasm Using Aggressive ICU Management. *Christopher Ogilvy, Oscar Szentirmai, Deidre Buckley, Nicholas Zervas. Discussant: Neil Kassell*

Scientific Session VII

9:45–11:15 AM

768 Endovascular Coil Obliteration of Posterior Circulation Cerebral Aneurysms. *Jeffrey E. Thomas, Patricia M. Gannon, Robert H. Rosenwasser. Discussant: Duke Samson*

Thursday, April 30

401 Posterior Circulation Aneurysms

Moderator: *Neal Kassell*

Panelists: *Duke Samson, Michael Horowitz, Jacques J. Marcos*

402 Techniques for Cerebral Revascularization

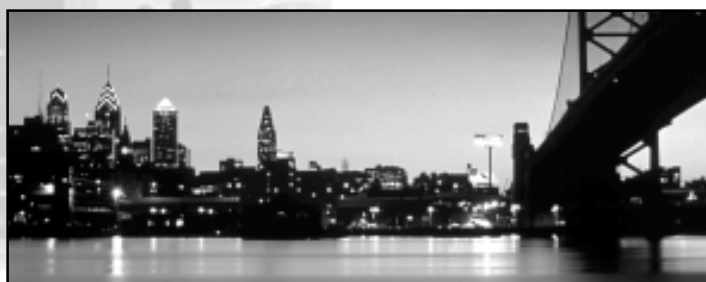
Moderator: *Laligam Sekhar*

Panelists: *Fernando G. Diaz, R. Michael Scott, Takanori Fukushima*

403 Management of AVMs

Moderator: *H. Hunt Batjer*

Panelists: *John Tew, L.N. Hopkins, Neil Martin, L. Dade Lunsford*



Photos courtesy of the Philadelphia Convention and Visitors Bureau.

A Proposed Study:

A Prospective, Randomized Comparison of Stereotactic Radiosurgery and Medical Management for Patients with High-risk, Hemorrhagic Cavernous Malformations

Sponsor: The Cavernous Malformation Study Group

Principal Investigator: Douglas Kondziolka, MD, University of Pittsburgh

Principal Methodologist: John R. Kestle, MD, University of British Columbia

The aim of this study is to evaluate outcomes after stereotactic radiosurgery or medical management in the care of patients with high-risk cerebral cavernous malformations who have sustained at least two documented symptomatic hemorrhages (neurologic events). The hypothesis to be tested states that treatment with stereotactic radiosurgery will decrease the rate of hemorrhage and neurologic events in comparison to medical management; will have a satisfactory safety profile; and will lead to improved clinical outcomes.

Cavernous malformations (CM) are identifiable by their magnetic resonance imaging (MRI) characteristics. They may present with bleeding, seizures, mass effect, neurologic deficit, or they may be incidental findings. The risk of bleeding or rebleeding is the usual argument for treating them. When they are located in a surgically accessible location, they are removed. Until recently, there have been no other treatment options; and when the lesions occur in locations that have a high surgical risk, they are simply observed. In a reported experience of patients selected for gamma knife radiosurgery, Kondziolka reported an annual rebleed rate of 32% before treatment, 8.8% in the first two years after radiosurgery, and 1.1% between two and six years after radiosurgery (4). Delayed morbidity occurred in 26%. Two patients (4%) had new permanent neurologic deficits. Therefore, radiosurgery may potentially be an efficacious treatment for patients who would otherwise not be treated, or treated with high surgical risks (6). Radiosurgery does have a low but real risk of morbidity and therefore it is important to assess its efficacy in a controlled study.

Radiosurgery is an effective treatment for arteriovenous malformations of the brain, and has been shown to decrease bleeding rates in cerebral cavernous malformations. With a true arteriovenous malformation that can be identified on a cerebral arteriogram, repeat arteriography after radiosurgery can confirm cure (when no abnormal vessels are identified). However, because a cavernous malformation is a slow flow vascular malformation, and not identified on angiography, and no imaging test is available to confirm cure. As a result, patient outcomes can only be identified by clinical status and frequency of rebleeding after treatment. It may be that in an individual patient the natural

history of the malformation may be to stop bleeding, and thus the potential benefit of radiosurgery may be no different from the natural history of the malformation itself.

Study Design

The study will be a randomized, multi-center prospective trial. Patients will be entered over a three-year period and the last patients followed for a minimum of three years. Centers will be invited to participate if they have experience with 50 cases of MRI targeted radiosurgery. They must also have experience with 20 cases of radiosurgery for vascular lesions. If stereotactic radiosurgery is not available at their center, arrangements will be made to have them treated at a participating center.

Diagnostic evaluations will consist of the following:

- Patients will be evaluated at six, 12, 18, 24 and 36 months post-treatment and then yearly. Results will be used to score the NIH stroke scale.
- Functional disability and quality of life assessments (2,10) will be done using a quality of life questionnaire developed and validated at Yale University.
- MRI scanning will be performed at the follow-up intervals noted above and as needed for patients with new neurologic problems.

Inclusion Criteria:

- Patients who have had two neurologic events in the preceding three years (neurologic event equals sudden onset of new neurologic symptom or sign lasting a minimum of three months directly attributed to a lesion on MRI).
- The patient must have a lesion typical of a cavernous malformation on MRI.
- The cavernous malformation must be less than 2.5 cm. in maximal diameter.
- The lesion must be located in a region of high surgical risk (this decision will be left up to the discretion of the participating center and adjudicated by an independent committee). In general, patients should be considered for entry into the study if more than half of the lesion is the brainstem, basal ganglia or thalamus.

Exclusion Criteria

- Age less than five years or greater than 70 years. Children have similar natural history data to adults in prior series, and similar morbidities from both hemorrhage and radiosurgery to adults. If the malformation is not resectable, then we believe children should have the same opportunity to be evaluable and potentially benefit from treatment as adults.
- Pregnancy.
- Patients presenting with seizures only.
- Patients with multiple lesions.
- Patients with a contraindication to stereotactic radiosurgery.
- Lesions previously treated surgically.

continued on page 13

Endovascular Surgery Status Report: Interview with John Pile-Spellman, MD

1) **What is the ideal relationship between an interventionalist and a neurosurgeon?**

Teamwork and fun. The five C's: Communication, Cooperation, Competence, Consideration and Commitment are all needed in abundance. Full band, high fidelity, relaxed communication fosters cooperation. Generous cooperation develops increasing scope and competence. This leads to respect and consideration, which nurtures commitment to the enterprise and the people. And that makes it fun.

2) **What aneurysms are ideal for coiling?**

Ideal? Small necked, medium sized, lateral wall, recently ruptured, where parent vessel occlusion is likely to be tolerated, in a patient who has unattractive surgical options and in whom a recurrence is likely to be inconsequential due to age, etc. Most PICAs, many basilar, periclinoid ICA, some PCoAs and AcoAs probably fit into this "ideal group."

3) **Which aneurysms should not be coiled?**

Massive-fusiform, clot-filled, aneurysms with perforators coming off all quadrants, in the attempt to spare the parent vessel in patients who are asymptomatic. Also in patients for whom the surgical or medical options are significantly and convincingly better in terms of expected quality-adjusted life expectancy than the endovascular option.

4) **What are the limitations in embolizing small deep feeders to an AVM?**

Size, anatomy, anastomosis, and aneurysms. The small size of the vessel with its characteristic dog-leg right angle course can make deep catheterization traumatic. The branching pattern of the deep white vessels, like branches of lombardy poplar, combined with the slow flow in the normal territory, makes confident exclusion of "vessels of passage" difficult. Distally, as the vessels approach the nidus, particularly in the area of the ventricle, the anastomotic pattern can become much more diffuse in this triple watershed area. The deep vessels can be very thin walled with associated aneurysms that can clearly be the site of bleeding prior to or associated with treatment.

5) **How do you decide how proximal the occlusion can extend when treating an AVM?**

Only dedicated vessels should be occluded, and no vessels of passage should be occluded. This is told by angiography and functional testing. Angiographically, this can usually be determined by identifying the first draining vein and the last clearly identifiable artery. Vessels of passage, fed by collaterals, that become apparent during occlusion of the high flow component, need to be identified or controlled. Functional testing has been, in our hands, very helpful in allowing us to

occlude unfavorable anatomical configurations using flow dynamics.

6) **Do you treat AVMs with associated aneurysms differently?**

Yes. Distal intranidal aneurysms that have bled need urgent and definitive treatment. This often requires parent vessel occlusion as the aneurysms are really pseudoaneurysms. Aneurysms on dedicated feeding vessels are treated by embolization of the AVM with trapping of the aneurysm. In very high flow AVMs with adequate collaterals, this method can also be used, but staging is needed to prevent the development of ischemia. Proximal aneurysms can be coiled if they have bled or represent a "navigational hazard" for endovascular treatment.

7) **Has embolization as an adjunct to radiosurgery been effective in your experience?**

Yes and no. Yes, it has helped in certain AVMs: those difficult to confidently localize without the radio dense glue in the nidus; abnormally shaped lesions by decreasing a long "tail" in an otherwise small AVM, such as those of the telechordia; rare situations in which significant reduction in the size of the AVM; and treating distal aneurysms that may rebleed while waiting for radiosurgery to work.

No, it has not helped in reducing 10 cm AVMs to 2.5 cm AVMs –or anything close. Lots of glue in massive AVMs can make targeting a real chore.

8) **Briefly describe your technical considerations when treating dural and spinal AVMs.**

We tend to start with c embolization with Acrylate embolization. Transvenous embolization is used, if needed. Spinal AVMs are all treated with Acrylate embolization. Motor/sensory and wake-up neurological examinations are used routinely. Perimedullary fistulae can occasionally be treated with coils – although they usually need glue. The intraparenchymal spinal AVM is by far the most challenging and staged meticulous embolization with Acrylate is probably the only real option.

9) **Are you satisfied with the efficacy of Papaverine and angioplasty in the treatment of vasospasm?**

Yes and no. For proximal early spasm it appears to be very beneficial. For diffuse or more persistent spasm the results are less impressive. The usefulness of Papaverine is less apparent in our hands. We always use IA calcium channel blockers.

10) **What changes do you predict in interventional therapy over the next ten years?**

There is going to be much more possible and much more done. Increasing effort and investment in methodology and materials

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1998 Calendar of Neurosurgical Events

1998 AANS/CNS Joint Pain Section Satellite Symposium

April 23–24, 1998
Philadelphia, Pennsylvania
(847) 692-9500

1998 Pallidotomy Accord

April 25, 1998
Princeton, New Jersey
Princeton University

1998 AANS Annual Meeting

April 25–30, 1998
Philadelphia, Pennsylvania
(847) 692-9500

1998 AANS/CNS Joint Section on Tumors Satellite Symposium

April 30–May 1, 1998
Philadelphia, Pennsylvania
(847) 692-9500

Texas Association of Neurological Surgeons

May, 1998
(817) 465-7764

Acute STROKE Management Workshop Basic Principles of Modern Management for Acute Stroke

May 9, 1998
New Orleans, LA or San Antonio, TX
1-888-876-2290

Society of Neurological Surgeons

May 10–12, 1998
St. Louis, Missouri
(617) 636-5858

Neurosurgical Society of America

May 13–17, 1998
Quebec, Canada
(210) 567-5625

Acute STROKE Management Workshop Basic Principles of Modern Management for Acute Stroke

May 16, 1998
Pittsburgh, PA
1-888-876-2290

Georgia State Neurosurgical Society

May 22–24, 1998
Sea Island, Georgia
(404) 876-7535

American Board of Neurological Surgery

May 25–28, 1998
Iowa City, Iowa
(713) 790-6015

Iowa-Midwest Neurosurgical Society

May 26–29, 1998
Iowa City, Iowa
(402) 559-4301

Acute STROKE Management Workshop Basic Principles of Modern Management for Acute Stroke

May 30, 1998
Kansas City, MO
1-888-876-2290

Southern Neurosurgical Society

June 3–7, 1998
Hot Springs, Virginia

American Medical Association Annual Meeting

June 14–18, 1998
Chicago, Illinois
(312) 464-5000

Rocky Mountain Neurosurgical Society

June 14 - 18, 1998
Vail, Colorado

Canadian Neurosurgical Society

June 16–20, 1998
Montreal, Quebec

Residency Review Committee for Neurological Surgery (ACGME)

June 26–27, 1998
Durango, Colorado

American Board of Medical Specialties

September 17, 1998
Chicago, Illinois
(847) 491-9091

Western Neurosurgical Society

September 12–15, 1998
Napa, California

American College of Surgeons Annual Meeting

October 25–30, 1998
Orlando, Florida
(312) 202-5000

American Academy of Neurological Surgery

November 3–8, 1998
Santa Barbara, California
(313) 936-5015

American Pain Society

November 3–9, 1998
San Diego, California
(847) 375-4715

American Heart Association Annual Meeting

November 8–11, 1998
Dallas, Texas
(214) 373-6300

Society for Neuro-Oncology

November 13–15, 1998
San Francisco, California

AANS/CNS Pediatric Section Meeting

December 1–4, 1998
Indianapolis, Indiana
(847) 692-9500

1998 CNS Annual Meeting



October 3–8, 1998
Seattle, Washington
Information: Annual Meetings
Service Department
(847) 692-9500

Endovascular Surgery (continued from page 11)

will attract competition and lead to a larger scope of practice. Quite possibly stenting of carotids and coiling/stenting of aneurysms will be refined and validated changing practice patterns. New areas such as endovascular transplantation, trans tumor embolization, retro perfusion, cold perfusion, and transvascular endothelial manipulation will offer avenues for novel and more successful treatments that will continue to attract the talented people. Other ways of imaging and new devices will continue to grow. I think in ten years the field will not be recognizable.

A Proposed Study (continued from page 10)

- g. Lesions with previous treatment of irradiation (whole brain or focused).
- h. Current neurologic status or a co-existing neurologic disorder that could obscure determination of new or changing deficits.
- i. Inability to return for follow-up over the next three years.
- j. Inability to obtain informed consent.

We will plan to accrue 180 patients.

For information on this study, please call Doug Kondziolka at 412-647-6782 (kondziol@neuronet.pitt.edu).

Don't forget to check **NEUROSURGERY://ON-CALL[®]**
(www.neurosurgery.org) for the latest on the CV Section!



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NEUROSURGICAL REVIEW BY CASE MANAGEMENT: ORAL BOARD PREPARATION

May 24–26 • Cedar Rapids, Iowa
November 8–10 • Houston, Texas

MINIMALLY INVASIVE NEUROSURGERY: NEUROENDOSCOPY – HANDS-ON

November 13–14 • Cleveland, Ohio
June 27–28 • San Francisco, California
November 21–22 • New Orleans, Louisiana

1998 REIMBURSEMENT UPDATE FOR NEUROSURGEONS

June 11–13 • Minneapolis, Minnesota (Foundations)
August 27–29 • Chicago, Illinois (Foundations)
May 29–31 • Orlando, Florida (Advanced)
November 13–15 • Cancun (Advanced)

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**Newsletter Mission
Statement**

The newsletter is distributed to all members of the Joint Section on Cerebrovascular Surgery of the AANS/CNS. The purposes of the newsletter are to :

1. Promote communication among Section members.
2. Promote communication among the Section's Executive Council and the members.
3. Promote coordinated activities and a common purpose within the Section.
4. Inform the membership of research, educational and employment opportunities.
5. Inform the membership of new technical developments in the treatment of cerebrovascular disease.
6. Promote research, patient care and educational activities of the Section.