

PRELIMINARY PROGRAM



SEPTEMBER 24-29, 1988 WASHINGTON STATE CONVENTION AND TRADE CENTER SEATTLE, WASHINGTON

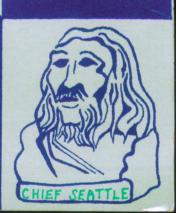




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Cover art and design by Sandra Goodkin. For description see page six.

Photography courtesy Seattle-King County Convention and Visitors Bureau.

Dear Colleague,

The 38th Annual Meeting of the Congress of Neurological Surgeons will take place at the Washington State Convention and Trade Center in Seattle, Washington, from September 24-29, 1988. This year's Honored Guest will be Professor Lindsay Symon from London, England, who is well known for his contributions to the understanding of cerebral circulation and metabolism. The major theme of the meeting is "Future Paths in Neurosurgery: Clinical and Socioeconomic" and will focus on socioeconomics issues, vascular and spinal disease, and brain tumors. The socioeconomics seminar will be a departure from previous formats as these issues have become a major priority in the minds of most neurosurgeons today.

This is the first time this meeting will be held in the Pacific Northwest, and should interest anyone who has not had the opportunity to visit that spectacular part of the country. Those who have been to that area will want to revisit the many attractions offered there. As home of the 1962 World's Fair, the skyline of Seattle is highlighted by the Space Needle. Magnificent Mount Rainier will beckon the naturalist at heart. Social events will stress the natural beauty of the region. An evening Salmon Bake will be held at Kiana Lodge which is an enjoyable boat ride from Seattle. Tours to the Everett Boeing Plant and a Washington Winery will also be offered.

For those of you who would like to prolong your trip, a 3 day added tour will be available to Victoria, Canada. The journey to Victoria will be via high speed catamaran. There the quaint characteristics of old England are still evident. This trip will appeal to everyone interested in picturesque scenery, bargains at the favorable Canadian exchange rate, or simply to extend the camaraderie of the Seattle meeting. In addition, an excellent scientific program is being planned for two mornings.

September is a splendid time of the year to visit Seattle. I encourage everyone to attend this meeting, both for the educational value and entertaining social program. This promises to be an outstanding meeting, and I look forward to seeing you there.

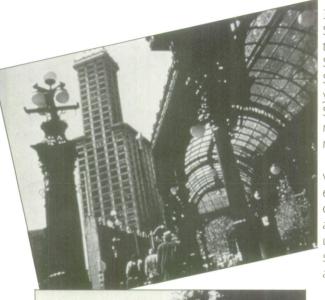
Sincerely,

Christopher B. Shields, M.D., F.R.C.S.(C)

President



WELCOME TO THE EMERALD CITY!







Seattle—jewel of the Pacific Northwest—is the site of the 38th Annual Meeting of the Congress of Neurological Surgeons. Aptly named The Emerald City, Seattle is far more than just sensational scenery. In 1986, Rand McNally ranked Seattle as the Number 1 vacation destination in the United States and the nation's Number 1 recreational city for the fifth year in a row. With our hotel headquarters at the Seattle Sheraton Hotel and our meetings being held at the brand new Washington State Convention and Trade Center, this meeting promises to be one of a kind.

Seattle is located on the eastern shore of the Puget Sound with mountain ranges on both sides — the Cascades to the east and the Olympics to the west. Mt. Rainier stands guard over the area, its snow topped peak being seen from miles in all directions. Built on seven hills, Seattle is a beautiful city with unmatched mountains and water views, with dozens of square miles of evergreen forest and hundreds of miles of salt and fresh water shoreline.

The area's natural beauty provides an excellent opportunity for you to extend your stay and explore the Northwest. One day trips or weekend vacations can be easily arranged since you are already in the heart of a natural playground. For those less inclined to the outdoors, Seattle's well-developed waterfront is a particularly interesting place to visit. Shops and restaurants line the piers. From the waterfront, one can easily go into the harbor and Puget Sound for sightseeing and a spectacular view of Seattle's impressive skyline.

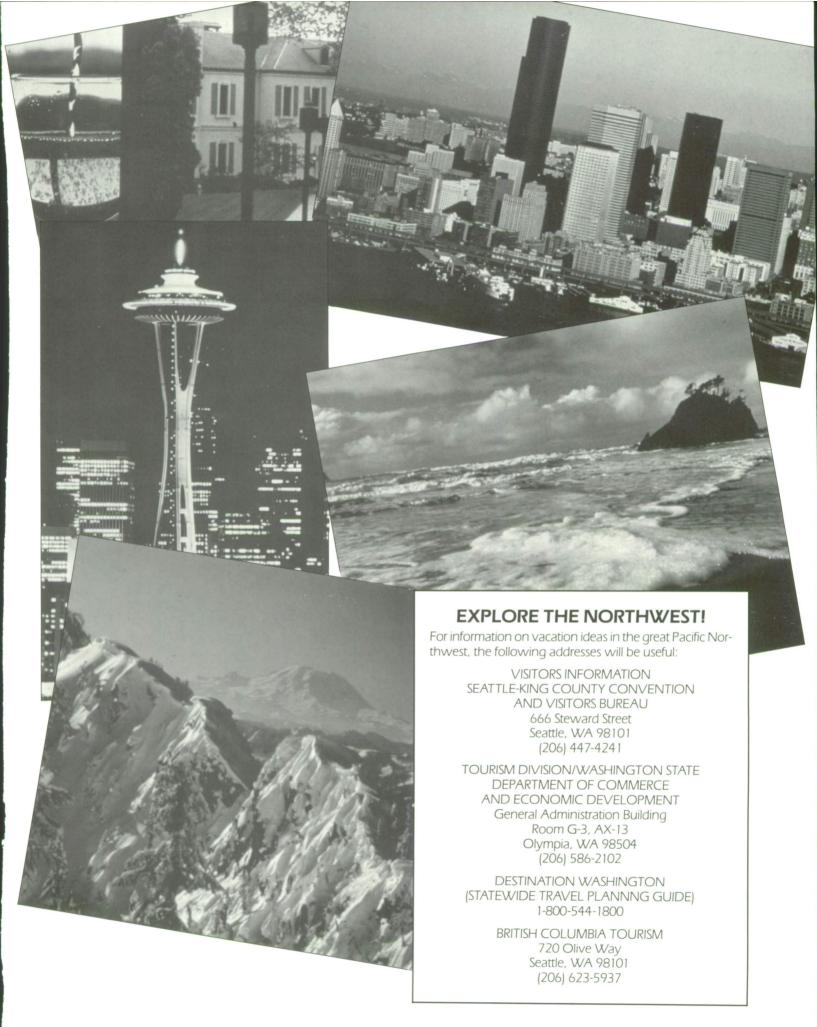
Pike Place Market, a genuine relic from a bygone era, is a series of roofed and open-air stalls where gardeners and shopkeepers sell their produce, flowers, seafood and imported delicacies. Included are antique shops, handicraft shops, art galleries and restaurants. The colorful and unique atmosphere makes for "people-watching" at its best.

All of these activities are easily accessible through Seattle's phenomenal transit system. Seattle's Metro has established the first ''free ride'' in the downtown. The Monorail will transport you quickly between downtown and the Seattle Center, home of the Space Needle and the Pacific Science Center.

Seattle has established a reputation for dining excellence, with fresh seafood as the specialty. Practically every ethnic origin and international cuisine are available, which will prove to be an excellent culinary experience.

This year, more than ever, the annual meeting has been developed to please all segments of our membership and their guests. The continued renovation of the format and content of the Scientific Program promises to satisfy a large cross-section of practicing neurosurgeons. The Social Program offers something for everyone with an emphasis on fun and enjoyment. This meeting is located in the highest ranked vacation and recreational place in the USA. This makes it ideal to extend your stay a few days or a week for a vacation you may otherwise never experience.

All of this adds up to one thing — SEE YOU IN SEATTLE!!



GENERAL INFORMATION

REGISTRATION INFORMATION

Enclosed with this preliminary program are the following materials:

- Registration form
- Housing form
- Post-Convention Tour Information

Please complete the registration form, returning it and the necessary fees in the small envelope provided.

PLEASE NOTE: The deadline for advance registration is August 24. Because course capacities are limited, early registration is recommended.

Registration will open at 2:00 p.m. on Saturday, September 24, at the Washington State Trade and Convention Center, and wil remain open until 7:00 p.m. From Sunday through Thursday, registration will open at 7:30 a.m., each morning.

HOTEL RESERVATIONS

To ensure room reservations at the discounted convention rate, rooms must be reserved through the CNS Housing Bureau, on an official CNS Housing Form. Please see page 27 of this brochure for complete hotel information. NOTE: The deadline for room reservations is August 24.

REFUND POLICY

Pre-Registration Fees: A letter requesting cancellation of pre-registration must be received by the CNS Annual Meeting Office, 22 South Washington, Park Ridge, Illinois 60068, by August 24 in order to receive a full refund. Cancellation requests received after August 24, and before September 20 will be refunded less a \$75.00 processing fee. No refunds will be made if received in the CNS Annual Meeting Office after September 20, 1988.

Course and Event Tickets: Course and Event tickets will be refunded in full until September 20, 1988. Because of facility guarantees, there can be no refund for tickets cancelled after September 20. There will be no on-site return or exchange of tickets for courses.

AIRLINE INFORMATION

The CNS has negotiated discount airfares with United and Delta Air Lines for persons attending the CNS Annual Meeting. The airlines may be called directly, or also by travel agents.

Programming has been planned to enable attendees to take advantage of the Saturday night stayover. Hertz Rental Cars at the convention rate can also be booked through the United Airlines reservation desk. Complete information is on page 28.

SOCIAL AND AUXILIARY ACTIVITIES

The green pages of this brochure contain complete details of all planned social and Auxiliary activities. It is recommended that this information be shared with your spouse in order to register for all of the week's extensive programming. Tours and activities have been selected to provide the opportunity to explore the Seattle area.

SCIENTIFIC MEETING

All scientific meetings and exhibits will take place at the brand-new Washington State Trade and Convention Center, located in downtown Seattle. This state-of-the-art facility also offers early morning, noontime, and late afternoon refreshments in the International Meeting Place. Over 200 exhibits featuring the latest neurosurgical products, will be on view beginning Sunday noon. The Wine and Cheese Party and Poster Viewing Session on Tuesday will be highlights in this area.

CONTINUING MEDICAL EDUCATION

This program has been certified for 40 hours of credit toward the Continuing Education Award in Neurosurgery by the Joint Committee on Education.

POST-CONVENTION MEETING

Join your colleagues in Victoria, B.C., at the Post-Convention Meeting. High-speed catamaran rides are planned through Puget Sound to reach The Empress — the dowager queen of Victoria, provincial capitol of British Columbia. The enclosed brochure offer complete information on this relaxing post-meeting.

WEATHER

Despite its perception as a wet city, September in Seattle should be very nice. Daytime temperatures average a high of 79, and a low of 48. Normally, less than one-fourth inch of rain falls during September. Jackets and sweaters are appropriate, particularly for evening events.

RESIDENT GREETING

On behalf of the Residents Committee of the Congress, I would like to welcome all Neurosurgery Residents to the Annual Meeting in Seattle. This year's meeting offers an outstanding educational opportunity, plus a chance to meet and question many of today's leaders in neurosurgery. The pros and cons of many controversial areas will be discussed and many new techniques in surgery and imaging will be presented. Seattle is beautiful in September and offers many exciting experiences for you and your spouses. A special luncheon will be available this year free to all residents during which you will have an opportunity to meet with our Guest of Honor, Lindsay Symon. We look forward to seeing you in Seattle.

William F. Chandler, M.D. Chairman, Residents Committee

RESIDENT REGISTRATION

Meeting Registration for residents and spouses is complimentary. All scientific course numbers followed by an "R", i.e., 202R, are complimentary or discounted courses to residents. Please indicate the appropriate resident course number on the registration form to register for these courses. Special resident activities scheduled include the Resident Luncheon on Wednesday noon with the Honored Guest, Professor Lindsay Symon, and the leadership of the Congress. Reduced room rates for residents have been obtained at the Hilton Hotel, which will serve as Resident Headquarters. The official resident housing form must be used to obtain these rooms. Because of limited availability of resident tickets for some courses, early registration is suggested. On-site availability of complimentary course tickets can be determined at the Resident Desk in the Registration Area.

Program Summary

	Saturday	Sun	day	Monday International		Tuesday	Wednesday Fun Run		Thursday
		Practical Courses	Special Course I	Brea Gen Scier	neral	General Scientific	Ger Sciei	neral ntific	General Scientific
<u>g</u>			Video	Session I:		Session II:	Session III:		Session IV:
Morning			Workshop	Future Pathways in Health Care Delivery		Future Pathways in Spinal Surgery	Future Pathways in Vascular Surgery		Major Management Problems in Neurosurgery
	Arrival			Honore		Presidential Address		d Guest	Honored Guest Presentation
				Presentation Luncheon Seminars		Luncheon Seminars	Presentation Luncheon . Seminars		Adjournment
Afternoon	Registration Open	Practical Courses	Video Workshop Section Workshop	II	Tumor Section Trauma	Poster Presentation Wine and Cheese Reception	Special Course III Video	Cerebro- vascular Section Spine	Depart for Post-Convention Meeting Victoria, B.C.,
D				Workshop	Section		Workshop	Section	Canada
Evening	Dining Options	Coc	ning ktail rty	Symphony		Kiana Lodge Salmon Bake	Banquet		

1-312-6929500



CONGRESS CONGRESS SEUROLOGICAL SURGRONS

Apples/grapes

In addition to being the world's apple capitol, Washington State wines are rapidly becoming internationally recognized. Situated on the same latitude as the famous French vineyards, Washington State wineries offer you an opportunity to experience new vintages of outstanding wine.

Fish

Seattle is famous for its fresh seafood, especially local clams, oysters and salmon. Seafood restaurants are in abundance, and many have

Sea/Sail

Among Seattle's natural assets are the multiple bodies of water that provide both beauty and recreation. Rated the number one vacation and recreational area in the U.S. by Rand McNally, Seattle provides numerous options for outdoor fun.

Pioneer Square

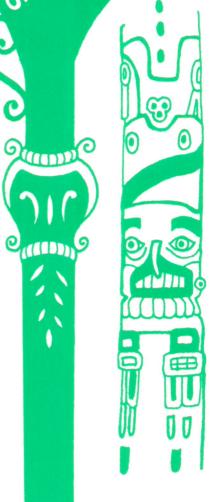
Pioneer Square is the city's preserved historic district. Characterized by fine old brick and sandstone buildings, a six square block area has been renovated and provides excellent shopping and dining with historical ambience.

Totem/Chief Seattle

Seattle is named after Chief Sealth, the leader of the Suguamish Indian tribe. The original settlers named the town Seattle, which was as close as they could come to the Indian pronounciation. Because of these historic roots, the area is known for Indian art and folklore.

Flower

Symbolic of the natural beauty of the Pacific Northwest, the Rhododendron is the state flower of Washington.



PRELIMINARY PROGRAM



SEATTLE FEATURES

The cover for this brochure is original art by Sandra Goodkin. Each item shown is representative of Seattle and the Northwest.



SUNDAY, SEPTEMBER 25

051/052 R

8:30 a.m.-12:00 p.m.
SPECIAL COURSE I:
HOW TO ATTACK A MALPRACTICE SUIT

Moderator: W. Ben Blackett, M.D., J.D. Introduction W. Ben Blackett, M.D., J.D.

The Malpractice Claim

"Plaintiff Attorney's Perspective"
Daniel F. Sullivan, Esq.

"Physician's Insurer — Claims Manager's Perspective"

Mr. Tom Kirchmeier

The Discovery Process — What to Expect — Defense Attorney's Perspective

Jack G. Rosenow, Esq.

Presentation of a Case

The Deposition — Demonstration — Video Recorded

- Plaintiff
- Defendent
- Review of Videotape and Criticisms

The Trial Panel Discussion

(Blackett, Sullivan, Rosenow, Kirchmeier)

PRACTICAL COURSES

Limited Registration

8:30 a.m-5:30 p.m.

001

Percutaneous Automated Discectomy (all-day course) Course Directors and Faculty: Joseph C. Maroon, M.D. and Gary Onik, M.D.

Morning

Anatomy and Physiology of Radicular Leg Pain, Radiographic Analysis of CT and MRI Scans, History of Percutaneous Discectomy, Clinical Results of Multidisciplinary Study.

Aternoor

Hands-on Training Using the Nucleotome System, Radiographic Evaluation of Instrument Placement and Use in the L3-4, L4-5, L5-S1 Disc Spaces.

8:30 a.m.-12:00 p.m.

Transportation for courses 006 and 008 will depart from the Convention Center at 8:00 a.m.

002

CT-Guided Stereotactic & Functional Neurosurgery

Course Director: William A. Friedman, M.D.

''BRW Frame''
''Pelorus Frame''

"Leksell Frame"

"Patil Frame"

William A. Friedman, M.D. Mark P. Carroll, M.D. Robert J. Coffey, M.D. A. Angelo Patil, M.D.

003

Operative Positioning for Success in Neurosurgery

Course Director: John M. Tew, Jr., M.D.

"Suboccipital Craniectomy—Lateral/Oblique (the Park Bench)
Position" John M. Tew, Jr., M.D.

"Pterional Approach—Supine Position"

Harry R. van Loveren, M.D., Geoffrey Thomas, M.D.

"Transcallosal Approach—Reclining Position"

William D. Tobler, M.D., Raymond Sawaya, M.D.

"Anatomy Lesson of Dr. Tulp" Jeffrey T. Keller, Ph.D.

"Lumbar Laminectomy—Lateral Approach" John Hess, M.D.,

Thomas S. Berger, M.D.

"Posterior Fossa Sitting Position" Theodore Kurze, M.D.

004

Cervical Spine Stabilization

Course Director: Volker K.H. Sonntag, M.D.

"Posterior Cervical Spine Stabilization"

Volker K.H. Sonntag, M.D.

"Anterior Cervical Stabilization Using Caspar Instrumentation" Fred H. Geisler, M.D.

"Posterior Cervical Spine Stabilization using

Methyl-Methacrylate'' J. Michael McWhorter, M.D.

"Anterior Cervical Stabilization" George W. Sypert, M.D.

005

Techniques in Aneurysm Surgery

Course Director: Arthur L. Day, M.D.

"Management of Carotid Aneurysms: Scalp Incisions and Skull Flaps" Arthur L. Day, M.D.

"Intracranial Vascular Anatomy" Albert L. Rhoton, Jr., M.D.

"Management of Vertebrobasilar Aneurysms and Operative Adjuncts for Exposure" Robert F. Spetzler, M.D.

"Management of MCA Aneurysms and Selection of

Proper Clips'' Roberto C. Heros, M.D.

"Management of Anterior Cerebral Aneurysms"

John R. Little, M.D.

006

Stabilization of the Lumbar Spine

Course Director: Sanford J. Larson, M.D., Ph.D.

"Luque Rods" Sanford J. Larson, M.D., Ph.D.

"Segmental Fixation with Cotrel-Doubusset Rods"

James G. Egnatchik, M.D.

"Steffee Plates" Gregory J. Bennett, M.D.

"Knodt Rods" Frances K. Conley, M.D.

007

Instrumentation for Pain Control

Course Director: Nicholas M. Barbaro, M.D.

"Radiofrequency Lesions: Spinal and Trigeminal"

Nicholas M. Barbaro, M.D.

"Epidural Spinal Stimulation" Richard B. North, M.D.

"Intrathecal Drug Pumps" Richard D. Penn, M.D.

"Deep Brain Stimulation" Ronald F. Young, M.D.

008

Dissection of the Brachial Plexus

Course Directors: David G. Kline, M.D. and Alan R. Hudson, M.D.

Faculty: David G. Kline, M.D.

Alan R. Hudson, M.D.

Suzie C. Tindall, M.D.

John E. McGillicuddy, M.D.

055/056 R 8:30 a.m.-12:00 p.m. VIDEO WORKSHOP Yasarqil 3-D Films 10:00 a.m.-10:30 a.m. COFFEE BREAK

12:15 p.m.-1:00 p.m.

ANNUAL BUSINESS MEETING

V

PRACTICAL COURSES

2:00 p.m.-5:30 p.m.

Transportation for Courses 012 and 014 will depart from the Convention Center at 1:30 p.m.

009

Operative Positioning for Success in Neurosurgery (same as Course 003)

010

Cervical Spine Stabilization (same as Course 004)

011

Techniques in Aneurysm Surgery (same as Course 005)

012

Stabilization of the Lumbar Spine (same as Course 006)

013

Instrumentation for Pain Control (same as Course 007)

014

Dissection of the Brachial Plexus (same as Course 008)

015

Professional Slide-Making for the Neurosurgeon

Course Director and Faculty (Bauer Audio Video)

James P. Holt

2:00 p.m.-3:30 p.m.

SECTION WORKSHOP

Workshop on Functional and Stereotactic Surgery

Moderator: Dennis E. Bullard, M.D.

Open Scientific Session Papers

"The United States Gamma Knife Experience:

A Report of 150 Cases"

L. Dade Lunsford, M.D.

"The Linac Scalpel—Intersecting Arc Radiosurgery"

William A. Friedman, M.D.

"Present Status of Functional Neurosurgery"

Philip L. Gildenberg, M.D., Ph.D.

3:30 p.m.-4:00 p.m. COFFEE BREAK

4:00 p.m.-5:30 p.m.

SECTION WORKSHOP

Workshop on Pediatric Neurosurgery

Moderator: R. Michael Scott, M.D.

Open Scientific Session Papers

"Head Injuries in Children — Results of Combined Studies"

Thomas G. Luerssen, M.D.

"Anomalies and Injuries at the Craniocervical Junction"

Arnold H. Menezes, M.D.

"Spine and Spinal Cord Injuries in Children" Yoon S. Hahn, M.D.

4:00 p.m.-5:30 p.m.

WORKSHOP

Workshop on the Management of CSF Leaks

Moderator: Michael Pollay, M.D.

"CSF Physiology" Michael Pollay, M.D.

"Management of Intracranial CSF Leaks" Peter W. Carmel, M.D.

"New Perspectives in Management of CSF Fistulas"

Mark N. Hadley, M.D.

"Management of Cranial CSF Fistulas"

Warren Selman, M.D.

057/058 R 2:00 p.m.-5:30 p.m. VIDEO WORKSHOP Yasarqil 3-D Films

MONDAY, SEPTEMBER 26

6:30 a.m.-7:45 a.m. INTERNATIONAL BREAKFAST



100

"Neurosurgery in the Middle East — Life Under Fire"
Fuad S. Haddad, M.D.

8:00 a.m.-12:00 p.m. GENERAL SCIENTIFIC SESSION I: FUTURE PATHWAYS IN HEALTH CARE DELIVERY

Presiding Officer: Christopher B. Shields, M.D. Moderators: Paul D. Croissant, M.D., and Nick Hopkins, M.D.

Neurosurgery: Maintaining Quality and Affordability in the Next Decade David Jones, CEO, Humana Corporation

Medical Practice: Establishing Your Own Future Irwin Wolkstein, Health Policy Alternatives,

Regent of the American College of Trial Lawyers

Law and Medicine: When Will the Hostage-Taking Cease? Fulton Haight

10:00 a.m.-10:30 a.m. COFFEE BREAK

HONORED GUEST PRESENTATION
The Future of Neurosurgery: A Neurosurgeon's Perspective
Lindsay Symon, TD, FRCS, FRCSE

The Forgotten Man of Socialized Medicine: The Doctor Leonard Peikoff, Ph.D.

12:15 p.m.-2:15 p.m. LUNCHEON SEMINARS

101/102 R

Cervical Spine Instability— Definition and Management

Leader: Ronald I. Apfelbaum, M.D.

Speakers: David L. Kelly, Jr., M.D., Joseph C. Maroon, M.D., Volker K.H. Sonntag, M.D.

103/104 R Syringomyelia

Leader: Albert L. Rhoton, Jr., M.D.

Speakers: Elaine Joy Arpin, M.D., Nicholas M. Barbaro, M.D.,

W. Jerry Oakes, M.D.

105/106 R

Access to Difficult Regions of the Spine

Leader: Kalmon D. Post, M.D.

Speakers: Barth A. Green, M.D., Fred Epstein, M.D., Arnold H. Menezes, M.D.

107/108 R

The Multidisciplinary Approach and Economics of Low Back Pain

Leader: Robert S. Hood, M.D.

Speakers: Edward Tarlov, M.D., Paul R. Cooper, M.D., Keith H. Langford, M.D.





109/110 R

Spinal Imaging with CT, MR, and 3-D — Is Myelography Obsolete?

Leader: Kenneth R. Maravilla, M.D.

Speakers: Joseph M. Eskridge, M.D., Julian T. Hoff, M.D.,

Mark N. Hadley, M.D.

111/112 R

Various Approaches to Third Ventricular Tumors

Leader: A. John Popp, M.D.

Speakers: Raymond Sawaya, M.D., Daniel L. Barrow, M.D.,

Leonard J. Cerullo, M.D.

113/114 R

Interstitial Brachytherapy

Leader: Michael Salcman, M.D.

Speakers: Dennis E. Bullard, M.D., Andrew Shetter, M.D.,

Debbie O. Heros, M.D.

115/116 R

Management of Craniopharyngioma

Leader: John Shillito, Jr., M.D.

Speakers: R. Michael Scott, M.D., Bruce E. Mickey, M.D., Charles

H. Tator, M.D., Ph.D.

117/118 R

Stereotactic Brain Tumor Biopsy

Leader: M. Peter Heilbrun, M.D.

Speakers: William A. Friedman, M.D., Mark Bernstein, M.D., Terry

W. Hood, M.D.

119/120 R

Treatment of Acute, Unstable Cerebrovascular Disease

Leader: Roberto C. Heros, M.D.

Speakers: Richard M. Hodosh, M.D., Fernando G. Diaz, M.D., Ph.D.,

Eugene S. Flamm, M.D.

121/122 R

Anomalies of the Spine

Leader: Peter W. Carmel, M.D.

Speakers: James T. Goodrich, M.D., John C. Van Gilder, M.D.

123/124 R

Brain Tumors — Adjunctive Therapy (Phototherapy, Hyperthermia, Interferon, and Immunotherapy)

Leader: M. Stephen Mahaley, Jr., M.D., Ph.D.

Speakers: Mark L. Rosenblum, M.D., Stephen K. Powers, M.D.,

Robert G. Selker, M.D.

125/126 R

Anterior Circulation Aneurysm Surgery — Managing Intraoperative Problems

Leader: L. Philip Carter, M.D.

Speakers: Ralph G. Dacey, M.D., Fred Gentili, M.D., Marc R.

Mayberg, M.D.

127/128 R

Transplantation of Neural Tissue

Leader: James T. Robertson, M.D.

Speakers: Sean Grady, M.D., Roy A.E. Bakay, M.D., David W.

Cahill, M.D.

129/130 R

Special Andragogical Seminar Management of the Failed Back

Leader: Donlin M. Long, M.D.

Speakers: Walter Grand, M.D., James G. Egnatchik, M.D.,

George W. Sypert, M.D.

Advanced reading material will be mailed to participants.

131/132 R

Video Luncheon Seminar

Surgery of the Skull Base and Cavernous Sinus

Leader: David G. Piepgras, M.D.

Speakers: Robert F. Spetzler, M.D., Vinko V. Dolenc, M.D., Ph.D.,

Takanori Fukushima, M.D., D.M.Sc.

2:30 p.m.-5:30 p.m.

JOINT SECTION ON TUMORS PROGRAM AND MEETING

Moderator: Mark L. Rosenblum, M.D.

Open Scientific Session Papers

Preuss Resident Research Award: Mutant Diphtheria Toxin-Monoclonal Antibody Conjugate Extends Survival in Nude Rats Bearing Intracranial Medulloblastoma Charles J. Wrobel, M.D.

Sectional Symposium:

Brain Tumor Growth and Development: Tumor Growth Controls "The Tumor Milieu"

"Tumor Angiogenesis"

"Cytokines (Cell-Produced Factors)"

"The Extracellular Matrix"

Mark L. Rosenblum, M.D. Henry Brem, M.D. Paul L. Kornblith, M.D. Michael E. Berens, Ph.D. 2:30 p.m.-5:30 p.m.

JOINT SECTION ON TRAUMA PROGRAM AND MEETING

Moderator: Donald Soloniuk, M.D.

Open Scientific Session Papers

Neurotrauma Award

Sectional Symposium:

"Protecting the Neurosurgeon and His Interests in

Trauma Regionalization" Lawrence H. Pitts, M.D.

"Medicolegal Implications of Neurosurgical Trauma Care"

E.Fletcher Eyster, M.D.

"Incursions into Neurotrauma Care by Non-neurosurgeons"

Thomas A. Gennarelli, M.D.

3:30 p.m.-4:00 p.m. **COFFEE BREAK**

151/152 R

2:30 p.m.-5:30 p.m.

SPECIAL COURSE II:

THE CRANIAL NERVES: IMAGING ANATOMY AND SURGICAL CONSIDERATIONS

Part I: CN II, III, IV, VI

Part II: CN V, VII, VIII

Part III: CN IX through XII

"Anatomy and Imaging"

"Relevant Operative Pathology"

H. Ric Harnsberger, M.D. Ronald I Apfelbaum, M.D.

155/156 R

2:30 p.m.-5:30 p.m.

VIDEO WORKSHOP

Yasargil 3-D Films

TUESDAY, SEPTEMBER 27

8:00 a.m.-12:00 p.m.

GENERAL SCIENTIFIC SESSION II: FUTURE PATHWAYS IN SPINAL SURGERY

Presiding Officer: Steven L. Giannotta, M.D.

Moderators: Volker K.H. Sonntag, M.D. and Hal L. Hankinson, M.D.

Biomechanics of the Lumbosacral Spine

Joseph C. Maroon, M.D.

Biology of Bone Fusion

Donald J. Prolo, M.D.

Lumbar Spine Stabilization: Indications

Stewart B. Dunsker, M.D.

Lumbar Spine Stabilization: Technique

James G. Egnatchik, M.D.

Approaches to the Thoracolumbar Spine

Volker K.H. Sonntag, M.D.

Thoracolumbar Fusion Techniques

George W. Sypert, M.D.

10:00 a.m.-10:30 a.m.

COFFEE BREAK

RESIDENT AWARD PAPER

Hyponatremia in Intracranial Disease: A Syndrome of Inappropriate Secretion of Either Antidiuretic Hormone or Atrial Natriuretic Peptide

Martin E. Weinand, M.D.

SPECIAL PRESENTATION — Auxiliary Invited

National Head and Spinal Cord Injury Prevention Program

E. Fletcher Eyster, M.D.,

Clark Watts, M.D.

PRESIDENTIAL ADDRESS

Christopher B. Shields, M.D., F.R.C.S.(C)

12:15 p.m.-2:15 p.m. **LUNCHEON SEMINARS**

201/202 R

Cervical Spondylosis — Operative Indications and Technique

Leader: Richard A. Roski, M.D.

Speakers: Julian T. Hoff, M.D., Robert E. Decker, M.D., Larry D.

Tice, M.D.

The Management of Disc Space Infections

Leader: Mark N. Hadley, M.D.

Speakers: Thomas B. Ducker, M.D., Russel H. Patterson, Jr., M.D.,

H. Evan Zieger, Jr., M.D.

205/206 R

New Approaches to Lumbar Disc Disease: Percutaneus Automated Discectomy — Gimmick or Godsend?

Leader: Gary Onik, M.D.

Speakers: Joseph C. Maroon, M.D., Clark Watts, M.D., Burton Onofrio, M.D.

207/208 R

Intramedullary Spinal Cord Tumors

Leader: Richard M. Hodosh, M.D.

Speakers: Paul R. Cooper, M.D., Fred J. Epstein, M.D.,

Charles H. Tator, M.D., Ph.D.

209/210 R

Pathophysiology of Cerebral Concussion

Leader: Dwight Parkinson, M.D.

Speakers: Donald S. Soloniuk, M.D., Howard M. Eisenberg, M.D.,

Lawrence H. Pitts, M.D.

211/212 R

Surgical Approaches to the Orbit

Leader: Linda L. Sternau, M.D.

Speakers: W. Richard Marsh, M.D., H. Richard Winn, M.D., Edgar

M. Housepian, M.D.

213/214 R

Recurrent Gliomas — Operative Management

Leader: Edward R. Laws, Jr., M.D.

Speakers: Michael Salcman, M.D., Raymond Sawaya, M.D.,

Glenn W. Kindt, M.D.

215/216 R

Cushing's Disease — Cause and Effect

Leader: George T. Tindall, M.D.

Speakers: William F. Chandler, M.D., William A. Kelly, M.D.,

Harley A. Smythe, M.D.

217/218 R

Radiation Biology of the Brain

Leader: Edward A. Neuwelt, M.D.

Speakers: Ivan Ciric, M.D., Mark L. Rosenblum, M.D.,

Edward Ganz, M.D.

219/220 R

Optimizing the Results of Carotid Endarterectomy

Leader: Donald O. Quest, M.D.

Speakers: Christopher Loftus, M.D., Richard B. Morawetz, M.D., Michael B. Pritz, M.D., Ph.D.

221/222 R

Intravascular Neurosurgery

Leader: Robert F. Spetzler, M.D.

Speakers: Grant B. Hieshima, M.D., Hunt Batjer, M.D.,

Neil Martin, M.D.

223/224 R

The Treatment of Incidental Vascular Anomalies

Leader: Daniel L. Barrow, M.D.

Speakers: Fremont P. Wirth, M.D., Marc R. Mayberg, M.D., Ralph

G. Dacey, M.D.

225/226 R

Craniosynostosis and Craniofacial Reconstruction

Leader: Peter McL. Black M.D.

Speakers: J. Parker Mickle, M.D., Arnold H. Menezes, M.D.,

Derek Bruce, M.D.

227/228 R V

Imaging in Cerebrovascular Disease

Leader: Joseph Zabramski, M.D.

Speaker: Joseph M. Eskridge, M.D., Kenneth R. Maravilla, M.D.

229/230 R

Surgical Approaches to the Clivus

Leader: Robert G. Ojemann, M.D.

Speakers: Laligam N. Sekhar, M.D., John M. Tew, Jr. M.D.,

Masashi Fukui, M.D.

231/232 R

Video Luncheon Seminar

Surgery of Intracranial Aneurysms

Leader: Eugene S. Flamm, M.D.

Speakers: Robert A. Solomon, M.D., Arthur L. Day, M.D.,

Vinko V. Dolenc, M.D., Ph.D.

2:30 p.m.-3:30 p.m.

POSTER SESSION PRESENTATIONS

Authors will be present for discussion.

2:30 p.m.-4:30 p.m.

WINE AND CHEESE RECEPTION

WEDNESDAY, SEPTEMBER 28

6:00 a.m.

505

FUN RUN

8:00 a.m.-12:00 p.m.
GENERAL SCIENTIFIC SESSION III:
FUTURE PATHWAYS IN VASCULAR SURGERY

Presiding Officer: Arthur L. Day, M.D. Moderators: Ralph Dacey, M.D., and John R. Little, M.D.

Surgical Anatomy of the Cavernous Sinus Dwight Parkinson, M.D.

Vascular Reconstruction for Skull Base Lesions Vinko V. Dolenc, M.D., Ph.D.

Clinico-Anatomic Features of Supraclinoid Aneurysms Arthur L. Day, M.D.

Management of Intraoperative Aneurysm Rupture Duke S. Samson, M.D.

Early Surgery in Poor Grade Aneurysm Patients H. Richard Winn, M.D.

Hemodynamics of Arteriovenous Malformations John R. Little, M.D.

10:00 a.m.-10:30 a.m. COFFEE BREAK

Grading and Staged Resection of Arteriovenous Malformations Robert F. Spetzler, M.D.

SPECIAL LECTURE

Intravascular Treatment of Aneurysms and AVM's Grant B. Hieshima, M.D.

HONORED GUEST PRESENTATION

Giant Aneurysms — Pathophysiology and Surgical Approaches Lindsay Symon, TD, FRCS, FRCSE

12:15 p.m.-2:15 p.m.

300 R

RESIDENT/HONORED GUEST LUNCHEON

12:15 p.m.-2:15 p.m. LUNCHEON SEMINARS

301

Spinal Arteriovenous Malformations

Leader: Robert F. Spetzler, M.D.

Speakers: Grant B. Hieshima, M.D., Roberto Heros, M.D., Edward H. Oldfield. M.D.

303

Complications of Lumbar Disc Surgery

Leader: Burton M. Onofrio, M.D.

Speakers: Linda L. Sternau, M.D., H. Evan Zieger, Jr., M.D., J. Michael McWhorter, M.D.

305

Thoracolumbar Trauma — Biomechanics, Pathophysiology, and Treatment

Leader: Barth A. Green, M.D.

Speakers: Volker K.H. Sonntag, M.D., Gregory J. Bennett, M.D., Sam Finn, M.D.

307

Lumbar Instability

Leader: Jack Wilberger, M.D.

Speakers: James G. Egnatchik, M.D., Edward S. Connolly, M.D.,

Nancy Epstein, M.D.

309

Central Nervous System AIDS and Lymphoma

Leader: Richard B. Morawetz, M.D.

Speakers: Edward A. Neuwelt, M.D., Dennis E. Bullard, M.D.,

Robert M. Levy, M.D., Ph.D.

311

Pituitary Tumors — Medical and Surgical Management

Leader: Daniel L. Barrow, M.D.

Speakers: William A. Kelly, M.D., Edward R. Laws, Jr., M.D.,

Vinko V. Dolenc, M.D., Ph.D.

313

Perioperative Management of SAH and the Use of Calcium Channel Blockers

Leader: John R. Little, M.D.

Speakers: Bryce K. Weir, M.D., Francis W. Gamache, Jr., M.D.,

David W. Newell, M.D.

315

Arteriovenous Malformations — Intra- and Extravascular Treatment

Leader: Henry D. Garretson, M.D., Ph.D.

Speakers: Duke S. Samson, M.D., Joseph M. Eskridge, M.D.,

Robert E. Decker, M.D.

317

Complications of Vascular Neurosurgery

Leader: Robert H. Wilkins, M.D.

Speakers: Robert G. Ojemann, M.D., David G. Piepgras, M.D.,

Daniel Rigamonte, M.D.

319

Pitfalls and Problems in Posterior Circulation Aneurysm Surgery

Leader: Michael Salcman, M.D.

Speakers: Richard M. Hodosh, M.D., Gerald D. Silverberg, M.D.,

Charles R. Neblett, M.D.

271

Cerebrospinal Fluid Shunts — Management Dilemmas

Leader: David M. Klein, M.D.

Speakers: R. Michael Scott, M.D., W. Jerry Oakes, M.D., Walker

L. Robinson, M.D.

323

Neurosurgical Hardware — Tools or Toys? (Drills, Ultrasound, and Laser)

Leader: Edward F. Downing, M.D.

Speakers: John M. Tew, Jr., M.D., Jon H. Robertson, M.D.,

George J. Dohrmann, III, M.D., Ph.D.

325

Cortical Mapping and Neuroleptanesthesia in Epilepsy and Tumor Surgery

Leader: George A. Ojemann, M.D.

Speakers: Richard Perrin, M.D., Mitchel Berger, M.D.

327

The Gamma Knife and Stereotactic Radiotherapy

Leader: Ken R. Winston, M.D.

Speakers: William A. Friedman, M.D., W. Robert Hudgins, M.D.,

Ladislau Steiner, M.D.

329

Benign Peripheral Pain — Management Dilemmas and Pearls

Leader: Andrew G. Shetter, M.D.

Speakers: Donlin M. Long, M.D., Nicholas M. Barbaro, M.D.,

Blaine S. Nashold, Jr., M.D.

331

Thoracic Outlet — Fact or Fancy?

Leader: Richard A. Roski, M.D.

Speakers: Charles L. Branch, M.D., Dachling Pang, M.D.,

Julian T. Hoff, M.D.

333

Video Luncheon Seminar

Surgery of Cerebellopontine Angle Tumors

Leader: Martin B. Camins, M.D.

Speakers: Kalmon D. Post, M.D., Albert L. Rhoton, Jr., M.D.,

Steven L. Giannotta, M.D.

2:30 p.m.-5:30 p.m.

JOINT SECTION ON CEREBROVASCULAR SURGERY PROGRAM AND MEETING

Moderator: John R. Little, M.D.

Galbraith Resident Award in Cerebrovascular Research: The Effect of Intrathecal Thrombolytic Therapy with Tissue-Type Plasminogen Activator on Subarachnoid Clot and Chronic Cerebral Vasospasm in a Primate Model of Subarachnoid Hemorrhage Jay M. Findlay, M.D.

Open Scientific Session Papers

Sectional Symposium: Vascular Lesions of the Cavernous Sinus Region

"Interventional Radiological Approaches"

Grant B. Hieshima, M.D.

"Surgical Approach" Vinko V. Dolenc, M.D., Ph.D.

Section Business Meeting

2:30 p.m.-5:30 p.m.

JOINT SECTION ON SPINE AND PERIPHERAL NERVE DISORDERS PROGRAM AND MEETING

Moderator: George W. Sypert, M.D.

Open Scientific Session Papers

Sectional Symposium: The Osteoporotic Spine

"The Problem of the Osteoporotic Spine"

George W. Sypert, M.D.

"The Orthopedic Approach to the Osteoporotic Spine"

Paul A. Anderson, M.D.

"The Pathology, Natural History, Radiology and Medical Management of the Osteoporotic Spine"

Charles H. Chesnut, III, M.D.

3:30 p.m.-4:00 p.m. COFFEE BREAK

351/352 R

2:30 p.m.-5:30 p.m.

SPECIAL COURSE III: STRATEGIES OF SUCCESSFUL

BRAIN TUMOR SURGERY
Moderator: H. Richard Winn, M.D.

Overview and Approach Michael L.J. Apuzzo, M.D.

Surgical Blueprint: Positions, Incisions, and Corridors

to the Tumor John M. Tew, Jr., M.D.

Surgical Tools and Technical Adjuvants M. Peter Heilbrun, M.D.

Functional Considerations: Strategies to Optimize

Clinical Results George A. Ojemann, M.D.

Managing Unanticipated Intraoperative Catastrophies

Kalmon D. Post, M.D.

Case Presentations and Firing Line

H. Richard Winn, M.D.

355/356 R

2:30 p.m.- 5:30 p.m.

VIDEO WORKSHOP

Yasargil 3-D Films

THURSDAY, SEPTEMBER 29

8:00 a.m.-11:00 a.m.
GENERAL SCIENTIFIC SESSION IV:
MAJOR MANAGEMENT PROBLEMS IN NEUROSURGERY

Presiding Officer: Hal L. Hankinson, M.D. Moderators: Richard A. Roski, M.D., and Thomas G. Saul, M.D.

Epidemiology and Patterns of Brain Tumor Management in the United States: Results of American College of Surgeons — Joint Tumor Section Survey
Stephen Mahaley, Jr., M.D., Ph.D.

HONORED GUEST PRESENTATION

Management of Difficult Skull Base Tumors

Lindsay Symon, TD, FRCS, FRCSE

Alternatives in Glioma Management

Moderator: Mark L. Rosenblum, M.D.

Aggressive Surgery for Low Grade Astrocytoma Michael Salcman, M.D.

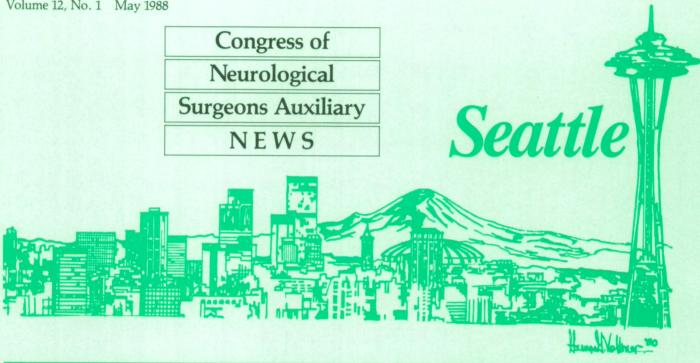
Conservative Treatment of Low Grade Astrocytoma Edward R. Laws, Jr., M.D.

Aggressive Surgery for Glioblastoma Ivan Ciric, M.D.

Conservative Surgery for Glioblastoma Edward A. Neuwelt, M.D.

Case Presentations to Panel Mark L. Rosenblum, M.D.

ADJOURNMENT



WELCOME TO SEATTLE!

Chris and Debbie Shields are looking forward to welcoming you to the Congress of Neurological Surgeons meeting which will take place in Seattle, Washington from September 24-29, 1988. The convention will be held in the brand new Washington State Convention and Trade Center, which is within easy walking distance from the hotels and waterfront.

Chris graduated from the University of Toronto in 1966 and entered the neurosurgical training program in Winnipeg, Manitoba, under Dr. Dwight

Parkinson. There he met his future wife Debbie Dickson at the Winnipeg General Hospital where she was a nursing student. They were married in 1970. After leaving Winnipeg, Chris completed a Fellowship in microvascular neurosurgery in Burlington, Vermont. Chris and Debbie settled in Louisville, Ken-

tucky in 1974 where he is currently a Professor in the Division of Neurosurgery at the University of Louisville.

They have two daughters, Lisa 15 and Karen 13, and two poodles. Both girls are accomplished pianists. Lisa has been the winner of the Kentucky Junior High School State Competition for the past three years. Karen has been a soloist with the Louisville Orchestra on five occasions.

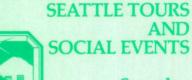
The Shields family hopes to see you at the CNS 38th Annual Meeting in Seattle and at the Post-Convention Meeting in Victoria, British Columbia.

SEATTLE

Seattle, the "Emerald City" of the Pacific Northwest is a multi-faceted place of natural beauty, and a fascinating

combination of past and present. The city, built on seven hills and surrounded by mountains and water, enjoys year-round outdoor sports, acres of parks, a colorful waterfront and fine restaurants and shops. Seattle was the home of the 1962 World's Fair, and one can still ride up the Space Needle for an unforgettable view of the city. Visitors

and locals alike enjoy the famous Pike Place Market and historic Pioneer Square. The Seattle area was selected as "the #1 Vacation Place in America" by Rand McNally in 1986.



Saturday September 24

451

SPACE NEEDLE DINNER 4:45 p.m.-7:45 p.m.

You will enjoy viewing the sunset and an early dinner at Seattle's landmark Space Needle. This revolving restaurant has been a major highlight of the area since the 1962 World's Fair and affords an unforgettable panorama of the city.

452

ENOTECA WINE BAR DINNER 6:00 p.m. Seating

Located within walking distance of the hotels, this cozy underground wine shop/restaurant offers an inventive and eclectic menu with the added attraction of first rate wines by the glass.

453

CHINESE BANQUET 6:15 p.m.-9:15 p.m.

A visit to Seattle's International District is a unique and interesting experience. Many Asian cultures co-exist in this area, making it the third largest "Chinatown" in the United States. You will dine at the House of Hong. En route, your guide will talk about the history and modern daily life in this fascinating part of town. Then you will enjoy a private Chinese banquet in a casual setting, giving you a real flavor for the area.

454

DINNER CRUISE 6:30 p.m.-9:30 p.m.

Spend your first evening in Seattle on the water enjoying a delicious dinner buffet of fresh Northwest seafood. This cruise will take you through Elliot Bay and along the shores of Puget Sound to view the beautiful sunset and the Seattle skyline.

455

ENOTECA WINE BAR DINNER 8:00 p.m. Seating

See description for Tour 452.

"Seattle Tidbits"

THE WEATHER

September is an excellent time to explore Seattle. With daytime temperatures averaging a high of 79 and a low of 48, the area normally receives less than one-fourth inch of rain during the month. Bring a sweater and raincoat for evenings or unexpected cool weather.

Sunday September 25

525

MOUNT RAINIER TOUR 8:00 a.m.-5:00 p.m.

Spend a day outside Seattle at lovely Mt. Rainier. At a height of 14,410 feet, this National Park offers hiking trails, fields of wildflowers, an informative Visitors Center and a beautiful inn, Paradise Lodge. The day will begin with a continental breakfast of freshly baked, homemade sweet rolls, fresh fruit and coffee served on the 21/2 hour scenic bus ride to the park. On the return trip to Seattle a snack of cheese and crackers, fruit, wine and soft drinks will be served. Sturdy walking shoes are recommended for this enjoyable day out of doors. 526

SEATTLE CITY TOUR 9:00 a.m.-12:30 p.m.

The city tour begins with a drive through downtown Seattle as your friendly and informative guide points out interesting landmarks and special shopping areas. Proceeding on to historic Pioneer Square, you will learn about the days of old Seattle while discovering the current location of many fine galleries and restaurants. You will be driven through Seattle's International District before moving on to the beautiful campus of the University of Washington. A visit to the Hiram M. Chittenden Locks is a must for any Seattle visitor. The accompanying fish ladders also allow for underwater viewing of salmon as they make their way to fresh water. As a special treat, the group will visit Port Chatham Cannery to get a first hand look at the local seafood industry and sample some freshly smoked salmon. The final tour stop is the Pike Place Market, an exciting array of color, smell and sounds. There will be ample time to shop and explore.

527

SEATTLE CITY TOUR 1:00 p.m.-4:30 p.m.

See description for Tour 526.

528

BRUNCH AT SHERATON 9:30 a.m.

Enjoy the view from the top of the Sheraton while having Sunday morning brunch. A wide view of the city and the waters surrounding it makes a very special experience.

529

BRUNCH AT SHERATON 1:00 p.m.

See description for Tour 528.

NORTHWEST WINERY TOUR

1:30 p.m.-4:30 p.m.

Situated on the same latitude as the French wine country, Washington State has a growing wine industry that is winning prestigious awards throughout the world. This tour will visit two popular local wineries. One stop will be the Haviland Winery to sample their premium wines in the new tasting room. The highlight of the trip is the visit to Chateau Ste. Michelle, Washington's oldest and most famous winery. Located on 87 acres of arboretum-like grounds, this lovely chateau offers an ideal setting for enjoying the fine art of winemaking.

After a cellar tour, guests will enjoy a wine tasting along with a sampling of cheese and fresh breadsticks in the Manor House. There will be time to stroll the grounds and visit the wine and accessory shop before returning to Seattle.

"Seattle Tidbits"

ADVANCED REGISTRATION

REMEMBER — The registration for the Auxiliary Activities is included on the Advance Registration Form for the meeting. Let him/her know what activities you would like to attend *NOW!* You can always register on site in Seattle but advanced notice assists availability.

531

NORTHWEST COOKING DEMONSTRATION

2:00 p.m.-4:00 p.m.

Come and learn how to prepare several Northwest specialties. Caprial Pence, the head chef of the award winning Fuller's Restaurant in the Sheraton Hotel, will show us the technique of making Tapas (appetizers). Chef Pence was recently featured in a *Time* article on Northwestern regional cooking. Samples of all foods will be available at the completion of the class.

"THE WEEK AT A GLANCE"

	Saturday Sept. 24th	Sunday Sept. 25th	Monday Sept. 26th	Tuesday Sept. 27th	Wednesday Sept. 28th	Thursday Sept. 29th	DAILY
MORNING		Mt. Rainer Tour 8:00am-5:00pm City Tour 9:00am-12:30pm Brunch 9:30am-1:00pm	Residents' Spouses Breakfast 8:00am-9:00am Northwest Art Tour 9:30am-12:30pm Snoqualmie Falls and Gilman Village Tour 9:00am-12:30pm	Pilchuck Glass School Tour 8:00-12:00noon Emeralds and Glass Art Tour 9:30am-11:00am HSCIPP Session 10:45am-11:15am Presidential Address 11:15-12:00noon	Fun Run 6:00am-7:30am Auxiliary Speaker Jim Whittaker 10:30am-11:30am		Hospitality Suite Sheraton Hotel Metropolitan Ballroom Sunday 7:30am-4:00pm Cirrus Room Monday, Tuesday, Wednesday 7:30am-4:00pm Thursday
AFTERNOON		City Tour 1:00pm-4:30pm Winery Tour 1:30pm-4:30pm Cooking Demo 2:00pm-4:00pm	Northwest Home Tour 1:30pm-4:30pm Boeing Tour 2:00pm-5:00pm Japanese Tea Garden 2:00pm-5:00pm	Boeing Tour 2:00pm-5:00pm Winery Tour 2:00pm-5:00pm	Auxiliary Luncheon and Style Show 12:00noon-3:00pm	To Victoria	7:30am-12:00noon
EVENING	Space Needle 4:45pm-7:45pm Enoteca Wine Bar 6:00pm & 8:00pm Seating Chinese Banquet 6:15pm-9:15pm Dinner Cruise 6:30pm-9:30pm	New Members' Reception 6:00pm-7:00pm Welcoming Cocktail Party 7:00pm-9:30pm	Seattle Symphony 7:30pm-10:30pm	Salmon Bake At Kiana Lodge 5:00pm-10:30pm	Annual Banquet Featuring "Up With People" 6:30pm-12:30am		



WELCOMING COCKTAIL PARTY 7:00 p.m.-9:30 p.m.

The Pacific Northwest is the theme for this spectacular party at the Sheraton Hotel. Imagine the Sheraton ballrooms and foyer transformed into forests, mountains, waterfalls, and a trout pond! Enjoy this outdoor atmosphere while visiting with friends. The menu will feature "Northwest" delicacies of all sorts. Washington State wines will be featured, and representatives from various wineries will be present to discuss their selection. What an excellent

way to officially open the meeting

and plan the rest of your week!

Monday September 26

RESIDENTS' SPOUSES BREAKFAST 8:00 a.m.-9:00 a.m.

Calling all residents' spouses! Please join the Congress Auxiliary Board at the special tables set up in the Hospitality Suite in the Cirrus Room of the Sheraton Hotel. We would like to give you a warm welcome to Seattle and the opportunity to meet and make some new friends.

532

SNOQUALMIE FALLS AND GILMAN VILLAGE

9:00 a.m.-12:30 p.m.

A scenic drive through the Cascade Mountains brings the group to Sno-qualmie Falls to view this spectacular waterfall as it cascades 268 feet to the canyon below. Then it's off to Gilman Village, a potpourri of more than 30 older homes that have been renovated into small house shops. Locals and visitors alike enjoy the interesting variety of shopping offered at Gilman Village. There will be ample time to browse through the many boutiques before our return to Seattle.



NORTHWEST ART TOUR 9:30 a.m.-12:30 p.m.

Seattle is proud of its many wonderful art galleries, and this tour will visit several of them in which local art is strongly represented. In each location a gallery owner or docent will give an informal talk to give more insight into the pieces on display. One stop will be The Legacy, which specializes in Indian and Eskimo art and will give visitors an idea of the native culture of the area. To view more contemporary art, the group will visit Seattle's well known Foster-White Gallery where paintings of Northwest visionary Carl Morris and the organic form sculptures of his wife, Hilda Morris, will be on display. The Northwest is also well known for its glass art movement and the group will have the special treat of viewing works at the Traver Sutton Gallery.





Snoqualmie Falls

"Seattle Tidbits" BABYSITTING

This service is available through the Hotel Concierge. Advanced notice of 1 week is preferable but not required. A 4 hour minimum of sitting time is understood. The fee ranges from \$7-8.50 per hour depending on the number of children.



NORTHWEST HOME TOUR 1:30 p.m.-4:30 p.m.

You will surely enjoy this tour of magnificent Northwest homes in exclusive Seattle neighborhoods. One of the stops on this tour will be a "floating home" — an architecturally unique house located on Lake Union. The group will enjoy refreshments served in one of the homes.



Floating Home

535

EVERETT BOEING PLANT 2:00 p.m.-5:00 p.m.

A trip to Boeing's Everett 747 facility offers an indepth view of the construction and assembly of this aircraft. This is a fascinating tour which gives insight into the many facets of the airplane industry. En route to the plant the informative guide will also give visitors the opportunity to learn about life in the Pacific Northwest and the area's relationship to Boeing, one of its largest employers. (No children under twelve years of age are permitted on this tour. Attendance is limited to 90 people.)

536

JAPANESE TEA CEREMONY 2:00 p.m.-5:00 p.m.

Take part in this classic Japanese ritual in all its exacting splendor while visiting the beautiful Japanese Garden located in the University of Washington Arboretum. After a tour of the garden, you will participate in a traditional Japanese tea ceremony. The tea gathering, or chakai, is designed to bring host and guest together in one single moment free from mundane concerns. The traditional tea and sweets of chakai will be served as the age old ceremony is followed by host and guests alike. Afterwards, the group will get a glimpse of contemporary Japanese-American life by visiting Uwajimaya, a modern day Japanese supermarket.

515

SEATTLE SYMPHONY 7:30 p.m.-10:30 p.m.

As part of its Master Concert Series, the Seattle Symphony with Gerard Schwartz conducting, will present an evening of music by Richard Strauss and Robert Schumann, highlighted by Piano Concerto #1 by Shostakovich. Joseph Kalichstein will be the guest pianist.

DON'T FORGET

Deadline for Housing and Registration is August 24.



Tea House/Tea Garden

Tuesday September 27

537

PILCHUCK GLASS SCHOOL TOUR 8:00 a.m.-12:00 p.m.

The Northwest has become well known in the art world for its glass art. The famous Pilchuck Schools located approximately one hour north of Seattle. The only art school in the United States devoted exclusively to glass art, Pilchuck is situated on 40 acres of woodland and meadows, commanding a kaleidoscopic view of the Olympic Mountain Range, the Straits of Juan de Fuca and the Skagit Plain.

Guests will take a guided tour of the facility, view part of the school's art collection and watch the artist in residence at work. A morning break will also include coffee and cookies. 538

EMERALDS AND GLASS ART TOUR

9:30 a.m.-11:00 a.m.

We begin this morning sipping champagne at one of Seattle's most exclusive jewelry stores, Fox's Gem Shop. Expert jewelers will be on hand to answer any questions, encouraging women to try on their favorite pieces. From there the group will move on to the specialty shop called Toppers, which specializes in English Floral arrangements and small glass items. An artist will be on hand to talk with the group and tell more about his work.

THE HEAD AND SPINAL CORD INJURY PREVENTION PROGRAM (HSCIPP)

10:45 a.m.-11:15 a.m.

One of the most worthwhile projects of the CNS and the AANS has been the development of the HSCIPP. This program was organized following pilot programs at the University of Missouri and Pensacola, Florida. The presentation will discuss the history of this program, current implementation, as well as including a film produced by the major neurosurgical organizations which has been awarded several film awards over the past year. Auxiliary members are encouraged to attend.

"Seattle Tidbits"

Badges must be worn for entry into the Hospitality Suite. Additionally, they are required for admission into the Exhibits Area, where you can view the latest neurosurgical products or enjoy lunch under an umbrella table with your spouse. To help others get to know you, please register and wear your badge at all times.

PRESIDENTIAL ADDRESS 11:15 a.m.-12:00 noon

All members of the Auxiliary of the Congress of Neurological Surgeons are invited to hear the Presidential Address.

539

BOEING TOUR

2:00 p.m.-5:00 p.m. See description for Tour 535.

For those going to Kiana Lodge, the bus will stop at the dock.

540

WINERY TOUR

2:00 p.m.-5:00 p.m. See description for Tour 530.

For those going to Kiana Lodge, the bus will stop at the dock.

516

KIANA LODGE SALMON BAKE 5:00 p.m.-10:30 p.m.

For a true Northwest experience, plan to take this cruise through Puget Sound followed by a delicious salmon bake. Kiana Lodge is a rustic ten acre retreat located 11/4 hours from downtown Seattle by boat. During the cruise, guests will be entertained by music and light snacks while enjoying the beautiful view past the islands and inlets of Puget Sound. Upon arrival at Kiana Lodge, guests will be greeted and invited to explore the grounds. Steamed clams and clam nectar are offered as a warming appetizer. Then a sumptuous and authentic salmon barbeque is served in an enclosed replica of a Northwest Indian Longhouse. To crown an evening of beautiful Northwestern scenery and delicious food, guests are treated to a grand finale of the glittering Seattle skyline as they return by boat, enjoying warm drinks and chocolates.

"Seattle Tidbits" BUSES

Buses will be available from the Convention Center for all the tours, and will make one stop at the Sheraton Hotel.

Wednesday September 28

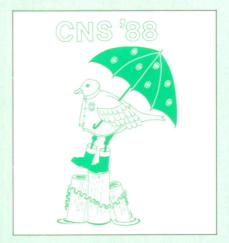
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FUN RUN 6:00 a.m.-7:30 a.m.

Enjoy a run through beautiful Myrtle Edwards Park overlooking Puget Sound and the Seattle harbor. The Fun Run course is 5K.

FUN RUN T-SHIRTS

The official Fun Run T-Shirt for Seattle is available in both adult and children's sizes. Whether or not you participate in this year's Fun Run, you will want this souvenir of the meeting.



541

AUXILIARY EDUCATIONAL SESSION – JIM WHITTAKER

Our guest speaker was the first American to reach the Everest summit. This is only one of this man's multiple accomplishments. An international alpine team with members from the Soviet Union, the United States and China, led by Jim Whittaker of Port Townsend, hopes to be the first to hit the summit of Mount Everest under the unblinking eye of live TV coverage in the spring of 1990.

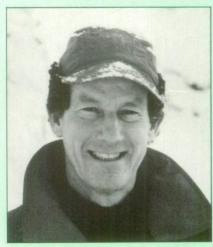
And all for the cause of world peace, in the year of the Goodwill Games in Seattle.

If the tri-national expedition is successful in May 1990, after three months on Everest, its summit broadcast would usher in the Goodwill Games, scheduled to start in Seattle that July.

Mr. Whittaker has been hiking, skiing and climbing mountains since his days as a Boy Scout. Later, he operated the Mt. Rainier Guide Service with his twin brother, Lou. He taught mountaineering in the U.S. Army Mountain and Cold Weather Command, and is an honorary member of the Tenth Mountain Division.

He is also marketing a new line of outerwear that can be worn in the highest mountains of the Himalaya, or the deepest canyons of New York City.

Jim Whittaker reached the highest point on earth as one of a team of dedicated people. Now he is reaching out. Through lectures, multi-image presentations and outdoor challenge seminars, he shares his knowledge. His extraordinary collection of photographs, his communicative skills, his energy and physical fitness inspire others to reach for their own highest goals. For everyone there is an Everest.



Iim Whittaker

542/543R

AUXILIARY LUNCHEON AND STYLE SHOW 12:00 p.m.-3:00 p.m.

This year's luncheon and style show is being held in the magnificent Spanish Ballroom of the Four Seasons Olympic Hotel. A delicious light lunch will be served. Then, a sensational runway-style fashion show with fifteen models and featuring approximately 80-90 outfits will be presented by Frederick and Nelson, one of Seattle's finest stores.

"Seattle Tidbits" AEROBICS

Aerobics will not be offered this year because there are multiple meeting hotels. However, full health facilities are available at the Sheraton, Westin and Four Seasons Olympic Hotels.



"Beat of The Future"

517

ANNUAL BANQUET 6:30 p.m.-12:30 a.m.

Come join us at our "Emerald City" Banquet featuring "Up with People" a young international musical group. After a champagne reception and delicious gourmet dinner, "Up With People" will entertain us with an exciting and highly energized show. Dancing will follow with music by Theresa Carnovale and "City Life," one of the most popular contemporary groups in the Northwest.



Theresa Carnovale and "City Life"

DON'T FORGET VICTORIA!



Barbara and Brian Hunt Victoria, B.C. Local Arrangements

POST-CONVENTION MEETING AUXILIARY NEWS

After a week of many scheduled activities in Seattle, the postconvention meeting in Victoria, British Columbia has been planned to allow you free time to spend with your spouse to explore and enjoy shopping, museums, restaurants and many attractions - all within walking distance of the Empress Hotel. The Empress Hotel is located on the Inner Harbour in Victoria and you will be offered accommodation and dining in one of Canada's grand old hotels. The weather will be similar to Seattle, and we will hopefully enjoy warm sunshine on the scheduled tour to the worldfamous Butchart Gardens. We have also been invited to enjoy the hospitality of the Lieutenant-Governor of British Columbia, at Government House for a reception Friday evening. The Tour Package for the Seattle meeting includes a special sailing of the Victoria Clipper - a water-propelled jet catamaran which allows you to enjoy the beauty of the San Juan Islands on the 21/2 hour trip between Seattle and Victoria.

We hope you will be able to extend your "holiday" to enable you to visit and enjoy Victoria.

IN CHARGE OF EVENTS:



Lynn Saul, Debbie Shields, Kim Burchiel

LYNN SAUL MEETING CHAIRPERSON

As meeting chairperson, Lynn and her husband Tom have been hard at work with Debbie and Chris Shields to prepare and coordinate the scheduled activities. They have enjoyed doing things as couples, planning for both the Neurosurgical Meeting and the Auxiliary events.

Lynn is also actively involved in volunteer work for various organizations. Her main committment is at the Ronald McDonald House at the Children's Hospital Medical Center in Cincinnati, where she is on the Board of Directors. She and her husband, Tom have two children.

KIM BURCHIEL LOCAL ARRANGEMENTS COMMITTEE CHAIRPERSON

Originally from New England, Kim moved to California as a young man. He attended U.C. Davis and U.C. San Diego then moved to Seattle where he did his residency in Neurosurgery. He is presently on staff at the University of Washington. He is a "committed Northwesterner" and is anxious for all of us to visit this beautiful part of the country. He says there is much to see and do out in Seattle. His outside interests include sailing and squash. He also enjoys the Symphony and Theater.

BONNIE HOPKINS SCIENTIFIC AND EDUCATIONAL

EDUCATIONAL COMMITTEE CHAIRPERSON



Bonnie Hopkins

Bonnie, a free lance travel agent interested in Skiing and Tennis, is also dedicated to community service. She has been active in the United Way Campaign, running a division of that program. She is also on the Board of Trustees at Children's Hospital of Buffalo. She and her husband Nick are natives of Buffalo, where they live with their three children.

HOSPITALITY SUITE

Metropolitan Ballroom (Sheraton Hotel) Sunday 7:30 a.m.-4:00 p.m.

Cirrus Room (Sheraton Hotel) Monday, Tuesday, Wednesday 7:30 a.m.-4:00 p.m. Thursday 7:30 a.m.-12:00 noon

The hospitality suite is located in the beautiful Cirrus Room on the top floor of the Sheraton Hotel. You can enjoy a healthy breakfast of fresh fruit and juice, yogurt, muffins, and tasty breads each morning between 7:30 a.m. and 9:30 a.m. Light refreshments will be served all day until 4:00 p.m. Local Seattle merchants will be displaying items from their shops and spouses of Seattle neurosurgeons will be on hand to answer any questions. Buses for the tours will leave from the Convention Center but will stop and pick up passengers at the Sheraton Hotel. Plan to meet your friends or make new ones in our hospitality suite which offers a spectacular view of the Seattle area.

NEXT YEAR: ATLANTA



Mike and Barbara McWhorter

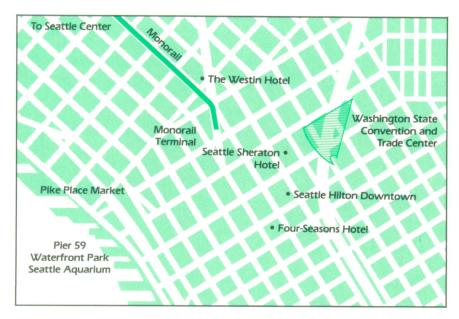
Exciting plans are underway for an unforgettable 1989 Congress of Neurological Surgeons Annual Meeting October 29th to November 2, 1989 in Atlanta, Georgia. Combining a gracious Southern heritage with the upbeat ambition of a modern metropolis, Atlanta is a city on the move.

The Auxiliary's special activities will include aerobic classes, superb shopping tours of historic interest, wonderful art galleries, and a "Day at a Spa".

Make your plans now to participate in a truly wonderful experience.

The Auxiliary Board would like to take this opportunity to thank all the dedicated people who have worked so hard to make this meeting an interesting and informative event.

HOTEL RESERVATIONS



Official CNS Hotels	Single	Rates Double	Suite	Health Facilities
Sheraton Hotel	\$100-127	\$110-137	\$225	Pool; Workout Room
Sheraton Towers	\$160-175	\$175-195 \$20	\$400 and up	
Westin Hotel	\$100	\$125	\$275 and up	Pool; Workout Room
Four Seasons Olympic	\$110	\$110	\$350- 1 Bedroom \$450- 2 Bedroom	Pool; Workout Room
Seattle Hilton	\$65	\$75		

- To receive the special CNS convention rate, use the enclosed form to make your hotel reservations.
- All room charges are subject to 13.1% state and local taxes.
- Reservations are processed on a first-come, first-served basis until August 24th. If the room rate or hotel requested is unavailable, one at the nearest rate will be assigned. After August 24, convention rates may not apply and the Housing Bureau will be working on an availability basis.
- All hotels are within walking distance of the Convention Center. However, shuttle buses will run throughout the meeting from the Westin and Four Seasons Olympic to the Convention Center and key evening events for your convenience.

- After receipt of your housing request, confirmation will be mailed directly from the hotel. Please allow four weeks for processing.
- Changes in arrival/departure or cancellations are to be made in writing with the CNS Housing Bureau until August 24th. After that date, please contact the hotel directly.
- Because of limited numbers of rooms available in each hotel, it is imperative that you indicate your second and third choice. Early reservations are strongly suggested.
- Reservations are held until 6:00 p.m. It is necessary to guarantee the reservation via credit card number on the housing reservation form for late arrival.

IMPORTANT AIR TRAVEL NEWS

FOR CONGRESS OF NEUROLOGICAL SURGEONS ANNUAL MEETING

SEATTLE SEPTEMBER 24-29, 1988

The Congress of Neurological Surgeons has negotiated special rates with Delta and United to offer you savings on air travel to Seattle, September 24-29, 1988.

A special 5 % BONUS off most Delta and United published round trip fares* within the United States and San Juan will be available (this ranges from first class to discounted maxsaver fares), providing all rules and conditions of the airfare are met. Hertz rental cars at the convention rate can also be booked through the United Airlines reservation desk.

AS AN ADDED BONUS, if you are unable to meet the restrictions of the many discounted airfares available from Delta and United, a special 40% discount off normal Coach fares will be offered. This special rate provides for greater flexibility in your travel plans with less restrictions.

Call Delta or United toll free 8:00 AM — 8:00 PM Eastern Time Daily.

DELTA AIR LINES 800-241-6760Mention the Special File Number PO344

UNITED AIRLINES 800-521-4041 Mention the Special File Number 8224J

SPECIAL NOTE: If you prefer the services of a travel agent, have them call Delta or United toll free at the numbers above to obtain these special conventions rates.

These discounts are available only through Delta's or United's toll free number, so call today! We look forward to welcoming you to Seattle!

*Some promotional fares discounted greater than 75% off the normal round trip coach fares may not be included in this offer.

POST-CONVENTION MEETING: Victoria, British Columbia

Carefully planned to combine both scientific information and an enjoyable excursion to the provincial capital, full program information is detailed in the enclosed brochure. Two half-day programs are planned, and highlights of the trip will include a reception at Government House and a tour of world-famed Butchart Gardens. Planned transportation is via comfortable high speed catamaran through the Puget Sound. The four-day tour will cost \$399 per person. For more information, contact:

Pacific Northwest Tours 4534 11th Avenue, N.E. Seattle, WA 98105 206/296-3080

CONGRESS OF NEUROLOGICAL SURGEONS
Annual Meeting Office
22 South Washington
Park Ridge, Illinois 60068
312/692-9500