PROGRAMME FOR THE CONJOINT MEETING OF THE

AMERICAN ACADEMY OF NEUROLOGICAL SURGERY President: ROBERT L. McLAURIN

WITH THE

SOCIETY OF BRITISH NEUROLOGICAL SURGEONS President: W. MARTIN NICHOLS

(BEING THE 84th MEETING OF THE SOCIETY) IN OXFORD, 4-7 SEPTEMBER, 1972

MONDAY, 4 SEPTEMBER 3.00 pm onwards Registration at the Old Bursary, New College (Holywell Street entrance. Cars should be parked in St. Catherine's College—see map) Tea 4.15 pm S.B.N.S. Business Meeting 6.15 pm University Reception by Pro-Vice-Chancellor in the Sheldonian Theatre (dress: informal) Suppers and Bars in New and Wadham Colleges TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER 9.30 am American Academy Business Meeting in New College		
(Holywell Street entrance. Cars should be parked in St. Catherine's College—see map) Tea 4.15 pm S.B.N.S. Business Meeting 6.15 pm University Reception by Pro-Vice-Chancellor in the Sheldonian Theatre (dress: informal) Suppers and Bars in New and Wadham Colleges TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		MONDAY, 4 SEPTEMBER
4.15 pm S.B.N.S. Business Meeting 6.15 pm University Reception by Pro-Vice-Chancellor in the Sheldonian Theatre (dress: informal) Suppers and Bars in New and Wadham Colleges TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	3.00 pm onwards	(Holywell Street entrance. Cars should be parked in St. Catherine's College—see map)
6.15 pm University Reception by Pro-Vice-Chancellor in the Sheldonian Theatre (dress: informal) Suppers and Bars in New and Wadham Colleges TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	4.45	200
Sheldonian Theatre (dress: informal) Suppers and Bars in New and Wadham Colleges TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	•	<u> </u>
TUESDAY, 5 SEPTEMBER 8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	6.15 pm	
8.45 am onwards Registration in St. Cross Building 9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		Suppers and Bars in New and Wadham Colleges
9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		TUESDAY, 5 SEPTEMBER
9.15 am Scientific Session (St. Cross Building) Lunch in New College 2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	8.45 am onwards	Registration in St. Cross Building
2.15 pm Scientific Session (St. Cross Building) 7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		-
7.15 pm Dinner in St. Edmund Hall (Black tie) WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		Lunch in New College
WEDNESDAY, 6 SEPTEMBER 9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	2.15 pm	Scientific Session (St. Cross Building)
9.15 am Scientific Session in St. Cross Building Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	7.15 pm	Dinner in St. Edmund Hall (Black tie)
Lunch in New College Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		WEDNESDAY, 6 SEPTEMBER
Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER	9.15 am	Scientific Session in St. Cross Building
Organ recital Free Afternoon 4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		Lunch in New College
4.15 pm Leave by buses for Stratford-upon-Avon: Hotel suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		——————————————————————————————————————
suppers and the Theatre (The Comedy of Errors) THURSDAY, 7 SEPTEMBER		Free Afternoon
·	4.15 pm	
9.30 am American Academy Business Meeting in New College		THURSDAY, 7 SEPTEMBER
	9.30 am	American Academy Business Meeting in New College

SCIENTIFIC PROGRAMME

TUESDAY, 5 SEPTEMBER

9.15 am J.M. POTTER (Oxford): Welcome

R.S. GYE (Oxford)

An Experimental and Clinical Study of Peripheral Nerve Homografts

Immuno-suppressive agents were used to prevent rejection of peripheral nerve homografts in Wistar rats and Rhesus monkeys. Azathioprine greatly enhanced regeneration. Following the successful animal experiments, freeze-dried and irradiated homografts were inserted into patients with extensive damage to peripheral nerve following trauma or lepromatous neuropathy. Regeneration occurred through grafts up to 23 cms. in length.

W.M. KIRSCH, D. SCHULZ and H. YOUNG (Denver, Colo.)

Combination Drug and Irradiation Therapy for Surgically Incurable Tumours of the Neuraxis

68 patients have been treated with a relatively standard combination of drugs and irradiation therapy for tumors which included glioblastomas, astrocytomas, grade ii and iii, as well as metastatic tumors. The most promising results appeared to be in the astrocytoma grade ii and iii series, with a few long term survivals in the glioblastoma series. Control patients were treated with irradiation therapy alone at the Colorado General Hospital.

J.S. GARFIELD (Southampton) Intracavity Glioma Chemotherapy

In an attempt to improve the current very poor results in the treatment of supratentorial astrocytoma of Kernohan grades 3 and 4 malignancy, methods of intracavitary chemotherapy have been considered. Using Methotrexate initially, a spigotted catheter was left in the tumour cavity for periods far beyond those previously accepted in neurosurgical practice. The use of a lipid-soluble agent is currently being assessed.

J.C. CHRISTENSEN (Buenos Aires) Third Ventricle Tumours: Direct Surgical Attack in 40 cases

Most of these tumours are benign and not very sensitive to radiation therapy. A subdivision into anterior, mesial, infundibular (approached transfrontally) and posterior (reached through the corpus callosum) tumours correlates fairly well with the clinical picture. Surgical results depend on the nature, location and extension of the tumours and on the patient's preoperative condition. A low postoperative mortality and long-lasting good results in many cases warrant a plea for direct surgical attack.

P. HARRIS, G.W. ASHCROFT, H.R.A. TOWNSEND, R. DOW and J. McQUEEN (Edinburgh)

Experimental Epilepsy

Cobalt-induced epileptogenic lesions in rats regularly produce a mirror focus in the contralateral cortex. Subsequently electrocorticographic recordings are made from the unrestrained conscious rats over a period of months. Studies of the pharmacological actions of various anticonvulsant drugs, others, especially regarding RNA, DNA and of protein metabolism, and of neurochemical transmitters, are being made. The effects of excision of the epileptogenic focus and of corpus callosum section are being investigated.

T.B. RASMUSSEN (Montreal)

Epilepsy due to 'Chronic Encephalitis'

Since 1950, 24 patients operated upon at the Montreal Neurological Institute for focal epilepsy have shown lesions in the surgical specimens histologically typical of active encephalitis, despite seizure histories of up to 25 years (median 4 years) and despite absence of other symptoms and signs, ordinarily associated with encephalitis. The evolution of the neurological signs and seizure symptomatology pre- and post-operatively is presented.

12.45 pm Photograph Lunch

2.15 pm W.M. NICHOLS, R.J.A. FRASER and A.R. CHOUDHURY (Aberdeen)

Investigation of Unilateral Proptosis

Dysthyroid disease is said to be the commonest cause of proptosis. The non-endocrine type, often unilateral, is of special interest to the neurosurgeon. A lesion may extend from orbit to cranial cavity or vice-versa, and its diagnosis may require special investigation, the value of which will be discussed.

S. MULLAN (Chicago, Ill.)
The Use of Dimethyl Sulfoxide in Experimental Head and
Spinal Injuries

In our search for a pharmaceutical which might stabilize cell and lysome membranes we came across dimethyl sulfoxide which belongs to both the radiation protection (free radical absorbing) and cold protection series. Its use in improving the mortality of experimental head injury and recovery from experimental spinal cord injury will be described. In both of these experimental situations it is clearly superior to the electrolyte dehydrators (urea) and the glucocorticoids.

D.S. GORDON and H.A. CROCKARD (Belfast)

Head Injuries in Civil Disturbances

Patients with bullet wounds of the head were admitted to a civilian accident centre within a few minutes of injury. In 11 patients the intracranial pressure and cerebral blood flow were monitored. Control of cerebral oedema by immediate hyperventilation yielded results which correlate well with experimental findings.

B.S. NASHOLD and H. FRIEDMAN (Durham, N.C.) Electronic Control of the Neurogenic Bladder

Failure of the micturition reflex in certain paraplegics is well known. An experimental spinal neuroprosthesis has been developed which has been implanted in the intact conus medullaris of 5 paraplegics. The detrusor muscle of the bladder can be self-activated by the patient from an external RF generator. Four patients are catheter free and empty their bladder at regular intervals by electrical stimulation of the spinal cord. The longest follow-up is 18 months.

J. ANDREW and N. RUDOLF (London)

Somatic Representation in the Human Thalamus

113 trajectories were explored by micro-electrode recording during 78 stereotactic thalamotomies for Parkinsonism and other dyskinesias. A detailed analysis of the distribution and nature of the evoked responses will be presented. A correlation will be made with the variability of the nuclear boundaries and with current views of somatic patterns in the thalamus.

Tea

D.G. McLONE (Chicago, Ill.)
Development of Brain Extracellular Space in Hydrocephalic
(Hy-3) Mice
(Academy Award Paper)

WEDNESDAY, 6 SEPTEMBER

9.15 am C.B.T. ADAMS (Oxford)

Movement and Myelopathy

Movement of the cervical extradural roots and dural sac during neck movement is measured in cadavers. The change of contour of the cervical spine is related to neck movements in patients with spondylotic myelopathy and controls. Suggestions are made for the pathogenesis and treatment as well as for the mechanism of late deterioration in some post-operative patients.

W.H. SWEET and J.G. WEPSIC (Boston, Mass.)

Controlled Thermocoagulation of Trigeminal Ganglion and Rootlets for Differential Destruction of Pain Fibres

A cannula electrode, whose tip is placed in the trigeminal rootlets, is used for short epochs of heating to produce a stepwise incremental destruction. Aided by the ultra short-acting anesthetic, methohexital, and by a thermister at the cannula's tip we have been able to produce analgesia without anesthesia confined to the desired trigeminal zones in the great majority of the 250 procedures to date. There has been no mortality and no extratrigeminal morbidity.

J.E.A. O'CONNELL (London)

Hetronymous Hemianopia

The rarity of a binasal hemianopia in comparison with a bitemporal one suggests some intrinsic difference between the crossed and uncrossed fibres in the optic chiasma. Binasal hemianopia has been shown to result from vascular compression of the uncrossed fibres. Anatomical observations will be described and their bearing on a number of the characteristic features of bitemporal hemianopia considered.

E.B. HENDRICK, H.J. HOFFMAN and R. HUMPHREYS (Toronto)

Tethered Conus Medullaris in Children

Tethered conus in children has received some attention in literature but with no significant number of cases in any one paper. With the increase of fusions for scoliosis in children, more cases have come to light. Experience with tethering of the conus medullaris, as seen in patients presenting at the Hospital for Sick Children, Toronto, will be discussed.

W.J. WHATMORE (Edinburgh)

Sincipital Encephaloceles

Clinical and surgical observations of a personal series of 30 sincipital encephaloceles are made with particular reference to their frequency of occurrence, geographical and racial distribution, and to operative techniques. The literature is reviewed and the aetiology and pathogenesis discussed in detail.

J.P. EVANS (Chicago, Ill.)

The Dilemma presented by the Foreign Medical Graduates This dilemma is very difficult of resolution. In 1970-71 approximately 12,000 foreign trained physicians (one half on immigrant visas) were admitted to the USA. Probably half of the other 6,000 will seek to remain. In that same period U.S. Medical Schools graduated just under 9,000 physicians. The needs of sending and receiving countries will be contrasted, and the costs and gains documented.

12.45 pm Lunch

LADIES' PROGRAMME

TUESDAY, 5 SEPTEMBER

BY COACH INTO THE COTSWOLDS

am

Tour of Chastleton House-coffee

Lunch at Moreton-in-Marsh

pm

Tour of Compton Wynyates

WEDNESDAY, 6 SEPTEMBER

am .

Tours of Colleges

Shopping

THE AMERICAN ACADEMY OF NEUROLOGICAL SURGERY

HONORARY

Percival Bailey 731 Lincoln Street Evanston, Illinois 60201

Wilder Penfield Montreal Neurological Institute 3801 University Street Montreal 2, Quebec, Canada

R. Eustace Semmes 20 S. Dudley Street, Suite 101-B Memphis, Tennessee 38103

SENIOR MEMBERS

George S. Baker 200 First Street, S.W. Rochester, Minnesota 55901

E. Harry Botterell Faculty of Medicine Queen's University Kingston, Ontario, Canada

Howard A. Brown 2001 Union Street San Francisco, California 94123

Harvey Chenault 2134 Nicholasville Road Lexington, Kentucky 40503

Donald F. Coburn 6400 Prospect Avenue, Room 204 Kansas City, Missouri 64132

Francis A. Echlin 164 E. 74th Street New York, New York 10021

Arthur Elvidge Montreal Neurological Institute 3801 University Street Montreal 2, Quebec, Canada

- *Theodore C. Erickson University Hospitals 1300 University Avenue Madison, Wisconsin 53706
- *Joseph P. Evans University of Chicago Clinics 950 E. 59th Street Chicago, Illinois 60637
- Expected at this Meeting

*James Greenwood, Jr. 1117 Hermann Professional Building 6410 Fannin Street Houston, Texas 77025

Wesley A. Gustafson Rt. 1, Box 125 Sewall's Point Jensen Beach, Florida 33457

Wallace B. Hamby 3001 N.E. 47th Court Fort Lauderdale, Florida 33308

Jess D. Herrmann P.O. Box 135 Mountain Pine, Arkansas 71956

Henry L. Heyl
Dartmouth Medical School
Hanover, New Hampshire 03755

William S. Keith Toronto Western Medical Building Suite 207, 25 Leonard Avenue Toronto, Ontario, Canada

*George L. Maltby 31 Bramhall Street Portland, Maine 04102 Edmund J. Morrissey

450 Sutter Street, Suite 1504 San Francisco, California 94108

Francis Murphey 20 S. Dudley Street, Suite 101-B Memphis, Tennessee 38103

J. Lawrence Pool 710 W. 168th Street New York, New York 10032

*Stuart N. Rowe 302 Iroquois Building 3600 Forbes Street Pittsburg, Pennsylvania 15123

Samuel R. Snodgrass John Sealy Hospital University of Texas Medical Branch Galveston, Texas 77550

A. Earl Walker Johns Hopkins Hospital, Division of Neurological Surgery 601 N. Broadway Baltimore, Maryland 21205

- *Exum Walker 490 Peachtree Street, N.E. Atlanta, Georgia 30308
- *Barnes Woodhall
 Duke University Medical Center
 Durham, North Carolina 27006

CORRESPONDING MEMBERS

Fernando Cabieses Instituto Peruano De Fomento Educativo Av. Arenales 371, Of. 501 Apartado 5254, Lima, Peru

Juan Cardenas y C. Av. Insurgentes Sur 594 Mexico, D.F.

*Juan C. Christensen Alvear 1399 Buenos Aires, Argentina

Giuseppe Dalle Ore Reparto Neurochirurgico Ospedale Maggiore 37100 Verona, Italy

- *Hans E. Diemath Prim. Univ. Doz. Neurochir. Abt. d. Landersnervenklink Salzburg. 5020. Austria
- *John Gillingham Boraston House, Ravelson Edinburgh 4, Scotland
- *Kenneth G. Jamieson 131 Wickham Terrace Brisbane, Queensland, Australia 4000

Katsutoshi Kitamura University Kyushu Hospital Faculty of Medicine Fukuoka, Japan

*Kristian Kristiansen Oslo Kommune Ullval Sykehus Oslo, Norway

B. Ramamurthi 2nd Main Road, C.I.T. Colony Madras 4, India

Kjeld Vaernet Rigshospitalets neurokirurgiske afdeling Tagensvej 18, 2200 Copenhagen, N., Denmark Karl August Bushe Chirurgie Universitat Gosler-Strasse 10 34 Goettingen, W. Germany Lauri Laitinen

Lauri Laitinen Neurokirurgiska Kliniken Toolo Sjukhus Helsinki, Finland

ACTIVE MEMBERS

Eben Alexander, Jr. Bowman-Gray School of Medicine Winston-Salem, North Carolina 27103

James R. Atkinson 302 W. Thomas Road Phoenix, Arizona 85013

- *H. Thomas Ballantine, Jr. Massachusetts General Hospital Boston, Massachusetts 02114
- *Gilles Bertrand Montreal Neurological Institute 3901 University Street Montreal, Quebec, Canada

Edwin B. Boldrey University of California Hospital 3rd Avenue & Parnassus San Francisco, California 94122

- *Barton A. Brown
 2001 Union Street
 San Francisco, California 94123
- *Gale G. Clark, Capt. USN MC 12621 Brookpark Road Oakland, California 94619
- *W. Kemp Clark 5323 Harry Hines Blvd. Dallas, Texas 75235

William F. Collins, Jr.
Yale Univ. School of Medicine
333 Cedar Street
New Haven. Connecticut 06510

James W. Correll Neurological Institute 710 W. 168th Street New York, New York 10032

Courtland H. Davis, Jr.
Bowman-Gray School of Medicine
Winston-Salem, North Carolina 27103

Edward W. Davis Providence Medical Office Bldg. 545 N.E. 47th Avenue Portland, Oregon 97213

*Richard L. DeSaussure 20 S. Dudley Street, Suite 101-B Memphis, Tennessee 38103

*Donald F. Dohn 2020 E. 93rd Street Cleveland, Ohio 44106

R.M. Peardon Donaghy Mary Fletcher Hospital Burlington, Vermont 05401

Charles G. Drake 111 Waterloo Street, Suite 211 London, Ontario, Canada

Dean H. Echols Ochsner Clinic 1514 Jefferson Highway New Orleans, Louisiana 70121

George Ehni 1531 Hermann Professional Bldg. 6410 Fannin Street Houston, Texas 77025

"William H. Feindel
Montreal Neurological Institute
3801 University Street
Montreal, Quebec, Canada

Robert G. Fisher 800 N.E. 13th Street Oklahoma City, Oklahoma 73104

Eldon L. Foltz Chairman, Division of Neurosurgery Univ. of California, School of Medicine Irvine, California 92664

John D. French The Center for the Health Sciences University of California Los Angeles, California 90024

*Lyle A. French University of Minn. Medical School Minneapolis, Minnesota 55455

James G. Galbraith University of Alabama Medical Center 1919 Seventh Avenue, South Birmingham, Alabama 35233 *John T. Garner 744 Fairmount Avenue Pasadena, California 91105

Sidney Goldring Barnes Hospital Plaza Division of Neurosurgery St. Louis, Missouri 63110

Philip D. Gordy 1025 Walnut Street Philadelphia, Pennsylvania 19107

Everett G. Grantham 234 E. Gray Street Louisville, Kentucky 40202

*John R. Green Barrow Neurological Institute 302 W. Thomas Road Phoenix, Arizona 85013

*Hannibal Hamlin 270 Benefit Street Providence, Rhode Island 02903

*John W. Hanbery Division of Neurosurgery Stanford Medical Center Palo Alto, California 94304

*George J. Hayes, Director of Staff Office, Deputy Ass't. Secty. of Defense, Washington, D.C. 20301

*E. Bruce Hendrick Hospital for Sick Children 555 University Avenue Toronto, Ontario, Canada

*William E. Hunt 410 W. 10th Avenue Columbus, Ohio 43210

*Robert B. King University Hospital Upstate Medical Center 750 E. Adams Street Syracuse, New York, 13210

*Wolff M. Kirsch University of Colorado Medical Center, Denver, Colorado 80220

*Robert S. Knighton Henry Ford Hospital 2799 W. Grand Boulevard Detroit, Michigan 48202 *Theodore Kurze
U.S.C. Medical School
Division of Neurosurgery
2025 Zonal Avenue
Los Angeles, California 90033

Thomas W. Langfitt Hospital of the University of Pennsylvania, 34th and Spruce Streets Philadelphia, Pennsylvania 19104

*Raeburn C. Llewellyn Tulane University 1430 Tulane Avenue New Orleans, Louisiana 70112

William M. Lougheed Medical Arts Building, Suite 430 170 St. George Street Toronto 5, Ontario, Canada

*Herbert Lourie 713 E. Genesee Street Syracuse, New York 13210

John J. Lowrey Straub Clinic 888 S. King Street Honolulu, Hawaii 96813

- *Ernest W. Mack 505 S. Arlington Avenue, Suite 212 Reno, Nevada 89502
- *Frank Mayfield 506 Oak Street Cincinnati, Ohio 45219
- *Augustus McCravey 1010 E. Third Street Chattanooga, Tennessee 37403
- *Robert L. McLaurin Division of Neurosurgery Cincinnati General Hospital Cincinnati, Ohio 45229

William F. Meacham Vanderbilt University Hospital Division of Neurological Surgery Nashville, Tennessee 37203

*John F. Mullan
University of Chicago Clinics
Department of Neurosurgery
950 E. 59th Street
Chicago, Illinois 60637

- *Blaine S. Nashold, Jr.
 Duke University Medical Center
 Durham, North Carolina 27706
- *Frank E. Nulsen Division of Neurosurgery University Hospital 2065 Adelbert Road Cleveland, Ohio 44106

Guy L. Odom
Duke University Medical Center
Durham, North Carolina 27706

Robert G. Ojemann Massachusetts General Hospital Division of Neurological Surgery Boston, Massachusetts 02114

- *Russel H. Patterson, Jr. 525 East 68th Street New York, New York 10021
- *Phanor L. Perot, Jr.
 Medical University of South Carolina
 80 Barre Street
 Charleston, South Carolina 29401
- *Byron C. Pevehouse 2001 Union Street San Francisco, California 94213

Robert W. Porter 5901 E. 7th Street Long Beach, California 90804

Robert H. Pudenz 734 Fairmount Avenue Pasadena, California 91105

*John Raaf 833 S.W. 11th Avenue Portland, Oregon 97205

Alden A. Raney 2010 Wilshire Boulevard, Suite 203 Los Angeles, California 90057

- *Joseph Ransohoff II New York Univ. Medical Center 550 First Avenue New York, New York 10016
- *Theodore B. Rasmussen Montreal Neurological Institute 3801 University Street Montreal 2, Quebec, Canada

David H. Reynolds 1150 N.W. 14th Street, Suite 209 Miami, Florida 33136

- *James T. Robertson 20 S. Dudley Memphis, Tennessee 38103
- *R.C.L. Robertson Shamrock Professional Building 2210 Maroneal Boulevard, Suite 404 Houston, Texas 77025
- *Richard C. Schneider C5135, Out-Pt. Building University Hospital Ann Arbor, Michigan 48104

Henry G. Schwartz Barnes Hospital Plaza Division of Neurological Surgery St. Louis, Missouri 63110

*William B. Scoville 85 Jefferson Street Hartford, Connecticut 06106

C. Hunter Shelden 744 Fairmount Avenue Pasadena, California 91105

*Bennett M. Stein Dept. of Neurosurgery 171 Harrison Avenue Boston, Massachusetts 02111

Thoralf M. Sundt, Jr. 200 First Street, S.W. Rochester, Minnesota 55901

- *Anthony F. Susen 3600 Forbes Avenue Pittsburg, Pennsylvania 15213
- *Homer S. Swanson 1938 Peachtree Road, N.W. Atlanta, Georgia 30309
- *William H. Sweet Massachusetts General Hospital Division of Neurological Surgery Boston, Massachusetts 02114
- *Ronald R. Tasker Toronto General Hospital Room 121, U.W. Toronto, Ontario, Canada

George T. Tindall University of Texas Medical Branch John Sealy Hospital Galveston, Texas 77550

John Tytus Mason Clinic 1118 Ninth Avenue Seattle, Washington 98101

Alfred Uihlein 200 First Street, S.W. Rochester, Minnesota 55901

*Arthur A. Ward, Jr.
Department of Neurological Surgery
University of Washington Hospital
Seattle, Washington 98105

Thomas A. Weaver, Jr. 146 Wyoming Street Dayton, Ohio 45409

- *W. Keasley Welch Children's Hospital Medical Center 300 Longwood Avenue Boston, Massachusetts 02115
- *Benjamin B. Whitcomb 85 Jefferson Street Hartford, Connecticut 06106

Lowell E. White, Jr.
Professor, Neurological Surgery
University of Florida School of
Medicine, Gainesville, Florida 32601

Charles B. Wilson
Department of Neurological Surgery
University of California Medical Center
Third and Parnassus
San Francisco, California 94122

GUESTS

- *Edward J. Bishop (Donald Dohn) 17884 Beach Road Lakewood, Ohio 44107
- *James B. Campbell (J. Ransohoff) New York University Medical Center Dept. of Neurosurgery 550 First Avenue New York, New York 10016
- *Bland W. Cannon (J.T. Robertson) 910 Madison Ave., No. 609 Memphis, Tennessee 38103

- *Thomas Craigmile (Wolff Kirsch) 2045 Franklin Denver, Colorado 80205
- *M.N. Estridge (Aidan Raney) 365 E. 21st Street San Bernardino, California 92404
- *E. Fletcher Eyster (B.C. Pevehouse)
 44 Woodlands Avenue
 Worcester Park, Surrey
- *Julian Hoff (Charles Wilson)
 Dept. of Neurosurgery
 University of California Medical Center
 San Francisco, California 94122
- *E.B. Kenner (Phanor Perot) 365 Winn Way Decatur, Georgia
- *David G. Kline (R. Llewellyn)
 Louisiana State University Medical
 Center
- *Keith Langford (Philip Gordy)
 Dept. of Neurosurgery
 Prince Henry's Hospital
 St. Kilda Road
 Melbourne, Victoria, Australia
- *Vincenzo Lombardi (Francis Echlin) Via Abate Gimma 73 70121 Bari, Italy
- *Emanuele Mannarino (W.B. Scoville)
 Hoffman—La Roche
 Basle, Switzerland
- *Lyman Maass (Edwin Boldrey) 5301F Street, Suite 206 Sacramento California 95819
- *David G. McLone (Academy Award Winner)
 277 Winston Drive, Hoffman Estates, Illinois 60172
- *Ernest J. Penka (Joseph Evans) 450 N. Bedford Drive Beverley Hills, California
- *Hugo Rizzoli (B. Whitcomb) George Washington Univ. Medical Center, 2150 Pennsylvania Ave., N.W. Washington, D.C. 20037

- *Joseph W. Robertson (R.C.L. Robertson), 2210 Maroneal Blvd. Houston, Texas 77025
- *James Simmons (R. DeSaussure) 20 S. Dudley Street Memphis, Tennessee 38103
- *Richard Small (T. Kurze) Resident in Neurosurgery LAC-USC Medical Center 1200 N. State Street Los Angeles, California
- *Jim L. Story (Barton A. Brown) 7703 Floyd Curl Drive San Antonio, Texas 78229
- *William Trowbridge (W. Collins) 1130 Hanna Building Cleveland, Ohio 44155
- *Professor P.D. Wall (Frank E. Nulsen), Dept. of Anatomy and Embryology, University College Gower St., WC1E 6BT, London.
- *Frank Wrenn (W. Kemp Clark) 123 Mallard Street Greenville, So. Carolina
- *N.T. Zervas (Hannibal Hamlin) 330 Brookline Avenue Boston, Massachusetts

SOCIETY OF BRITISH NEUROLOGICAL SURGEONS

M = Full Member A = Associate Member

E = Emeritus Member

- E The Rt. Hon. Lord Adrian, OM, FRS Trinity College, Cambridge
- H Dr. S. Obrador Alcalde, Eduardo Dato 23, Madrid 10, Spain
- *M J. Andrew Esq., FRCS
 Department of Neurosurgery,
 Middlesex Hospital, London, W.1.
 - C G. Arthurs Esq., FRCS 149 Macquarie Street Sydney, N.S.W., Australia
 - M W.J. Atkinson Esq., MS, FRCS Hurstwood Park Hospital Haywards Heath, Sussex
 - H K. Lewer Allen Esq., FRCS, ChM Princess Nursing Home 69 Essenlen Street Johannesburg, S. Africa
 - H Dr Roman Arana Inigues Cremona 6751 Montevideo, Uruguay, S. America
 - H Dr. A. Asenjo
 Instituo Central de Neurosirugia y
 Neuropatologia, Gabellow Cushing
 Hospital del Salvador
 Santiago, Chile
 - C Professor N. Ameli 15 Khiaban Jami Teheran, Persia
 - C Dr. Bashir Ahmad FRCS 14-A Bahawalpur House Lahore, W. Pakistan
 - A Roger Armour Esq., FRCS Calgarth, Crossdale Road Plymyard Avenue, Bromborough, Cheshire
 - A Mrs. J. Ahluwalia
 Department of Neurosurgery
 Safdarjang Hospital
 New Delhi—16, India

- H = Honorary Member C = Corresponding Member
- A R.L. Atkinson Esq., FRCSE Alexandra, Wickham Tce 4,000 Brisbane, Queensland, Australia
- A Dr. D. Anagnostopolous Regional Neurosurgical Centre Oldchurch Hospital Romford, Essex
- *A C.B.T. Adams Esq., FRCS Dept. of Neurological Surgery The Radcliffe Infirmary Oxford
- H Dr. J. Beattie Queen's College, Cambridge
- C Professor J. le Beau 107 Rue de l'Université Paris VIIe, France
- H Dr. E.H. Botterell
 Dean of the Faculty of Medicine
 Queen's University
 Kingston, Ontario, Canada
- H Professor Eduard Busch Righospitalets neurokururgiske afdeling, Tagensvej 18 Copenhagen, Denmark
- A A.H.M. Bennett Esq., FRCS Elinlegh Court, Stone Street Stellis Minnis, Canterbury, Kent
- *M J. Block Esq., FRCS
 Department of Surgical Neurology
 Royal Infirmary
 Dundee, Angus, Scotland
 - C H.J. Bagnall Esq., FRCS 803 Waterloo Avenue Ottawa, Ontario, Canada
 - M J. Brice Esq., FRCS
 The Wessex Region Neurological
 Centre, Southampton General
 Hospital, Shirley
 Southampton, Hants

- E Professor Percival Bailey 1601 W. Taylor Street Chicago, Illinois, U.S.A.
- C Dr. B. Broager
 Bispebjerb Hospital
 Copenhagen, Denmark
- C Professor S.M. Boctor Department of Neurosurgery Alexandria Faculty of Medicine Alexandria, U.A.R.
- H Dr. Paul Bucy 251 East Chicago Avenue Chicago 11, Illinois, U.S.A.
- M Michael Betty Esq., FRCS Newcastle General Hospital Newcastle.
- A Ian C. Bailey Esq., FRCS P.O. Box 6095 Kampala, Uganda, E. Africa
- C Dr. V. Benes
 Neurosurgical Clinic
 Charles University,
 Praha-Stresovice, Czechoslovakia
- *A G. Brocklehurst Esq., MChir, FRCS Division of Neurosurgery, Medical Center, University of Kentucky Lexington, Kentucky 40506
- *M T.F. Buckley Esq., FRCS 16 Newenham Drive Maryborough
- Douglas, Cork, Ireland

 A A.E. Booth, Esq., FRCS34 Cressida Road

London N.19

- A Miss Carys Bannister, FRCSE Department of Neurological Surgery, General Infirmary Great George Street, Leeds 1
- A J. Bartlett Esq., FRCS Brook General Hospital Shooter's Hill Road London S.E.18
- A Dr. Y.S. Bhandhari The Neurosurgical Unit, Salford Royal Hospital, Chapel Street Salford 3, Lancs

- C Professor J.W.F. Beks Groningen Oostersingel 59, Holland
- H Dr. Claude Bertrand 1392 Sherbrooke Street East Montreal, Canada
- *A M.R. Bond Esq., FRCS Neurosurgery Department Southern General Hospital 1345 Govan Road, Glasgow SW1
- A D.P. Byrnes Esq., FRCS
 Department of Neurological
 Surgery, Royal Victoria Hospital
 Grosvenor Road
 Belfast, BT12 6BA
- A G. Barantham Esq., FRCS Department of Surgical Neurology, Royal Infirmary Lauriston Place Edinburgh EHS 9YW
- C Dr. R.A. Bailey 11315-46th Avenue Edmonton, Alberta, Canada
- *E G. Clark-Maxwell Esq., FRCS Mackworth House, Derby
- *M R.C. Connolly Esq., FRCS St. Bartholomew's Hospital London, E.C.1
- *M P.R.R. Clarke Esq., FRCS
 Department of Neurosurgery
 Ward 17, Middlesbrough
 General Hospital, Ayrsome
 Green Lane
 Middlesbrough, Yorks
- A Dr. H.J. Crow Burden Neurological Institute Stoke Lane, Frenchay, Bristol
- M P.C.J. Carey Esq 27 Fitzwilliam Square

Dublin 2, Eire

- A T.J. Connelley Esq., FRCS St. Vincent's Hospital Victoria Street Darlinghurst, N.S.W., Australia
- H Professor Jerzy Chorobski Czerwonego, Krzyza 11N 28 Warsaw, Poland

- C Professor J. Chandy, MSc, FRCS Christian Medical College and Hospital, Vallore, S. India
- C Dr. F. Cabieses Talara 655, Lima, Peru
- *H Dr. J.C. Christensen Avenida Alvear 1399 Buenos Aires, Argentine
- M J.C. Currie Esq., FRCS Department of Neurological Surgery, St. Bartholomew's Hospital, London E.C.1
- C Dr. Binoy Chakravorty, FRCS 3 Allenby Road Calcutta-20, India
- A Bernard Crymble Esq., FRCS 30 The Martlet, The Upper Drive Hove, Sussex
- A Dr. J.C. Chawla Department of Neurological Surgery, Frenchay Hospital Bristol
- C J.B. Curtis Esq., FRCS, FRACS 376 Albert Street, East Melbourne Victoria 3002, Australia
- A A.G.L. Corkill, Esq., FRCS Royal Hobart Hospital Tasmania, Australia
- A 1. Cast Esq., FRCS Neurosurgical Unit, Morriston Hospital, Swansea SA6 6NL
- *A B.H. Cummins Esq., FRCS Department of Neurological Surgery, Frenchay Hospital Bristol, BS16 1LI
- A J.N. Cross Esq., FRCS
 West of Scotland Neurosurgical
 Centre, Killearn Hospital
 Killearn, Stirlingshire
- A J.T. Cummins Esq., FRCS Department of Neurosurgery The London Hospital Whitechapel, London, E.1
- A.R. Choudhury Esq., FRCS Aberdeen Royal Infirmary Foresterhill, Aberdeen, Scotland

- A A.B. Chaudhari Esq., FRCS Dept. of Neurological Surgery Frenchay Hospital, Bristol BS16 1LE
- *A U.M. Chowdhary Esq., FRCS Department of Neurological Surgery, St. Bartholomews Hospital, London, E.C.1
- *A H.A. Crockard Esq., FRCS
 Department of Neurological
 Surgery, Royal Victoria Hospital
 Grosvenor Road, Belfast BT12 6BA
- H Professor M. David 4 Rue Gallière Paris XVIe, France
- H Dr. Loyal Davis 700 North Michigan Avenue Chicago, Illinois, U.S.A.
- E Professor Norman Dott, CBE, FRCS 3 Chalmers Crescent Edinburgh 9
- C Stevens Dimant Esq., FRCS
 Pugent Sound Medical Building
 1106 South Fourth Street
 Tacoma, Washington, U.S.A.
- M R.A. Daws Esq., FRCS · 22 Egerton Road Ashton, Preston, Lancs
- *M J. Dutton Esq., FRCS
 University Department of Neurosurgery, Royal Infirmary
 Manchester 13
- *M B.H. Dawson Esq., FRCS Salford Royal Hospital Salford 3, Lancs
- A F. Donovan Esq., FRCS St. Vincent's Hospital Stephens Green East Dublin, Eire
- C Dr. José de Heras Avda Republica Argentina 23 Leon, Spain
- A Dr. José de Vera Reyes Alvarez de Luge 36— Santa Cruz de Tenerife Canary Islands

- M Graeme Duffy Esq., FRCS Midland Centre for Neurosurgery Holly Lane Smethwick, Warley, Worcs
- H Dr. Courtland Davis Jr. Bowman Gray School of Medicine Winston Salem, N.C. 27103, U.S.A.
- C Dr. J.C. de Villiers, FRCS Department of Surgery Medical School, Observatory Cape Town, South Africa
- C Dr. M.H. Dhruva Medical Arts Building, 740 St. Helens, Tacoma Washington 98402, U.S.A.
- C Dr. Harold Elliott Montreal General Hospital Montreal 25, Canada
- A Dr. El Sayed Awad El Gindi, FRCS 13 Abdel Kader Hamdy Street El-Hay El-Khamisi Heliopolis, U.A.R.
- M Bernard Fairburn Esq., FRCS 'Cranbrook', 34 Hogarth Avenue Brentwood, Essex
- *M Murray A. Falconer Esq., FRCS Guy's Maudsley Neurosurgical Unit, De Crespigny Park London, S.E.5
- M R.J.A. Fraser Esq., FRCS Royal Infirmary Foresterhill, Aberdeen
- C Dr. R. Frykholm Sodersjukhuset Stockholm, Sweden
- C Professor Piero Frugoni Instituto di Neurochirurgia Via Giustiniani 51, Padova, Italy
- A V. Farrell Esq., FRCS 6 Bompas Road, Dunkeld Johannesburg, S. Africa
- A Keith Frazer Esq., FRCS Regional Neurosurgical Centre Walton Hospital, Liverpool 9
- A D.M.C. Forster Esq., FRCS c/o Barclay's Bank Bank Plain, Norwich

- A T.F. Fannin Esq., FRCS
 Department of Neurological
 Surgery, Royal Victoria Hospital
 Grosvenor Road
 Belfast, BT12 6BA
- *M Professor F.J. Gillingham, FRCS Department of Surgical Neurology Royal Infirmary, Edinburgh 3
- M C.A. Gleadhill Esq., FRCS Royal Victoria Hospital Belfast, N. Ireland
- H Professor J. Barcia Goyanes Gran Via Marques del Turia 62-1° Valencia, Spain
- *M A.N. Guthkelch Esq., FRCS Combined Neurological Service The Royal Infirmary, Hull
- M J.R. Gibbs Esq., FRCS
 Brook General Hospital
 Shooters Hill, London, S.E.18
- M R.M. Gibson Esq., FRCS
 Department of Neurological Surgery
 General Infirmary, Leeds 1
- *M D. Gordon Esq., FRCS 30 Deramore Park Belfast BT9 5JU
- M J.R.W. Gleave Esq., FRCS Department of Neurological Surgery, Addenbrooke's Hospital Hills Road, Cambridge
- *M H. Gossman Esq., FRCS South Devon and East Cornwall Hospital, Freedom Fields Plymouth, Devon
- C Dr. G. Guiot Hopital Foch, 40 Rue Worth à Suresnes (Seine), France
- C Professor C. Gros Service de Neuro-chirurgie Centre Hospitalier Regional de Montpellier, Montpellier, France
- M P. Gortvai Esq., FRCS Oldchurch Hospital Romford, Essex

- *M John Garfield Esq., FRCS
 Wessex Neurological Centre
 Southampton General Hospital
 Shirley, Southampton
- C Dr. B. Guidetti Via Ximenes 7 Rome, Italy
- A Norman Grant Esq., FRCS
 The Hospital for Sick Children
 Great Ormond Street
 London, W.C.1
- M H.B. Griffith Esq., FRCS Department of Neurological Surgery Frenchay Hospital, Bristol
- *H Dr. James Greenwood, Jr 718 Hermann Professional Building Houston, Texas 77025, U.S.A.
- H Dr. F. Amaral Gomez
 Centro-De-Neurogrugia
 Centro Hospitalar de Coimbra
 Coimbra, Portugal
- *M Richard Hannah Esq., FRCS Walton Hospital Liverpool 9
- M J. Hardman Esq., FRCS Department of Neurological Surgery, Royal Infirmary Sheffield 6
- M Bernard Harries Esq., FRCS University College Hospital Gower Street, London, W.C.1.
- M Phillip Harris Esq., FRCS
 Department of Surgical Neurology
 Royal Infirmary, Edinburgh 3
- A R.K. Hay Esq., FRCS
 Department of Neurosurgery
 St. Mary's and Vaughan
 Winnipeg 1, Manitoba, Canada
- E W.R. Henderson Esq., FRCS Lane Head, Creskeld Garth Bramhope, Leeds

١,

- *M Professor E.B.C. Hughes, FRCS Queen Elizabeth Hospital Edgbaston, Birmingham 15
- M Allan Hulme Esq., FRCS Neurosurgical Unit Frenchay Hospital, Bristol

- M J.G. Hamilton Esq., FRCS Midland Centre for Neurosurgery Holly Lane Smethwick, Warley, Worcs
- A T.A.H. Hide Esq., FRCS National Hospital Queen Square, London, W.C.1.
- *M J. Hankinson Esq., FRCS
 Department of Neurological
 Surgery, Newcastle General
 Hospital, Newcastle-upon-Tyne 4
- M Dudley Hancock Esq., FRCS Stoke Mandeville Hospital Aylesbury, Bucks
- A T.M. Hannigan Esq., FRCS Crumpsall Hospital Crumpsall, Manchester 8
- M E.R. Hitchcock Esq., FRCS Department of Surgical Neurology Royal Infirmary, Edinburgh 3
- A A.E. Holmes Esq., FRCS
 Department of Neurological
 Surgery, Addenbrooke's Hospital
 Hills Road, Cambridge
- A Dr. Edward P. Hoffman Midland Centre for Neurosurgery & Neurology, Holly Lane Smethwick, Warley, Worcs
- *A R.D. Illingworth Esq., FRCS National Hospital, Queen Square London, W.C.1
- E Harvey Jackson Esq., FRCS National Hospital Queen Square London, W.C.1
- H T.G.I. James Esq., FRCS 1 Freeland Road Ealing Common, London, W.5
- *M Richard Johnson Esq., FRCS Department of Neurological Surgery, Royal Infirmary Manchester 13
- *M A.A. Jefferson Esq., FRCS Department of Neurological Surgery, Royal Infirmary Sheffield 6

- C M.J. Joubert Esq., FRCS 15-17 St. Augustine's Medical Centre, 333 Clark Road Durban, South Africa
- C Antony James Esq., FRCS 5 Masefield Way Karori, Wellington, New Zealand
- C Omar V. Jooma Esq., FRCS Jinnah Central Hospital Karachi, Pakistan
- M Ivan Jacobson Esq., FRCS
 Department of Surgical Neurology
 Royal Infirmary, Dundee
- *M Professor W. Bryan Jennett FRCS Institute of Neurological Sciences Southern General Hospital Glasgow, S.1
- M R.A.C. Jones Esq., FRCS Salford Royal Hospital Chapel Street Salford 3, Lancs
- *C Dr. K. Jacz Monteverdilaan 235, Zwolle, The Netherlands
- A Miss Jane Johnston, FRCS West of Scotland Neurosurgical Unit, Killearn Hospital Killearn, Stirlingshire
- A R.V. Jeffreys Esq., FRCS
 Department of Neurosurgery
 The London Hospital
 Whitechapel, London, E1 1BB
- A Dr. Khalil Jawad
 Department of Neurosurgery
 St. Laurence's Hospital
 Dublin, Ireland
- *M A.S. Kerr Esq., FRCS Regional Neurosurgical Centre Walton Hospital Liverpool 9
- C Professor F.K. Kessell Stadt. Krankenhaus Ismaningerstr. 22 Munich 8, Germany
- C Dr. M.R. Klein 9 Square de l'Alboni Paris XVIe, France

- M G.C. Knight Esq., FRCS 106 Harley Street, London W.1
- H Professor Hugo Krayenbühl Neurochirurgische Universitatsklinik, Kantonsspital Ramistrasse 100 Zurich, Switzerland
- H Professor Zdenek Kunc Neurosurgical Clinic Charles University Praha-Stresovice, Czechoslovakia
- C Dr. R.A. Krynauw Woodifields Estate George Cape Province, S. Africa
- *M T.T. King Esq., FRCS The London Hospital Whitechapel, London, E.1
- H Professor Adam Kunicki Slawkowska 24A Krakow, Poland
- *C Dr. K. Kristiansen Ulleval Sykehus Oslo, Norway
- A W.F.C. Kennedy Esq., FRCS 15-17 St. Augustine's Medical Centre, 333 Clark Road Glenwood, Durban, South Africa
- *M R.M. Kalbag Esq., FRCS Wards 33 and 33a, Newcastle General Hospital, Westgate Road Newcastle-on-Tyne
- C S. Kalyanaraman Esq., FRCS A 147 Central Street Kilpauk Garden Colony Madras—10, India
- A H.K. Khanna Esq., FRCS Department of Neurosurgery Cincinnati General Hospital Cincinnati, Ohio, U.S.A.
- A Vijay Kak Esq., FRCS
 Department of Neurosurgery
 P.G. Institute of Medical Education
 & Research
 Chandigarh, U.P. India

- M C. Langmaid Esq., FRCS
 Department of Neurosurgery
 Royal Infirmary, Cardiff
- M J.P. Lanigan Esq., FRCS Richmond Hospital Dublin, Eire
- *M L.P. Lassman Esq., FRCS Newcastle-upon-Tyne General Hospital, Westgate Road Newcastle-upon-Tyne 4
- H Professor L. Leksell Karolinska Sjukhuset Stockholm, Sweden
- M W.S. Lewin Esq., MS, FRCS Department of Neurological Surgery and Neurology Addenbrooke's Hospital Hills Road, Cambridge
- H Dr. Adolfo Ley Muntaner 318, Barcelona, Spain
- H Professor Pedro d'Almeida Lima Centro de Estudos Egas Moniz Avenida do Brasil 53

Lisboa, Portugal

- *M Professor Valentine Logue, FRCS Maida Vale Hospital London, W.9
 - C R.C. Lowe Esq., FRCS 94 Pasley Street South Yarra 3141, Australia
 - C R. Lipschitz Esq., FRCS
 Department of Surgical Neurology
 Baragwanath
 - A G.R.W. Latham Esq., FRCS Sydney Hospital Macquarie Street Sydney, N.S.W., Australia

Johannesburg, S. Africa

- H Professor E. Laine 25 Boulevard Vauban Lille, France
- C Professor C.H. Lenshoek Neurochirurgische Kliniek Algemeen Zieken Huis Groningen, Holland

- C Professor Jean Lecuire Hôpital Neurologique 39 Boulevard Pinel Lyon-Bron (Rhône), France
- A Miss Beryl Lander, FRCS Midland Neurosuffical Centre Holly Lane, Smethwick Warley, Worcs
- C Professor Dr. Luyendijk Neurosurgery Department University Hospital Leiden, Holland
- C Professor Nils Lundberg Neurokirurgiska Klinicen Länslasarettet, Lund, Sweden
- C Dr. T.A. Lie v. Ryckevorsellaan 10 Moergestel, Holland
- C Dr. G. Morello Viale Regina, Giovanni 11 Milano, Italy C H. Mendelow Esq., FRCS
- C H. Mendelow Esq., FRCS Princess Nursing Home Essenlen Street Johannesburg, S. Africa
- H Dr. C.G. de C. Mahoney St. Vincent's Hospital New York 11, U.S.A.
- M H.A. Maslowski Esq., FRCS Crumpsall Hospital Manchester 8
- H Sir Douglas Miller, FRCS 149 Macquarie Street Sydney, N.S.W., Australia
- H Dr. Jean Morelle Clinique Chirurgicale de l'hôpital St. Pierre, Rue de Bruxelles 69 Louvain, Belgium
- H F.P. Morgan Esq., FRCS 55 Collins Street Melbourne 3000, Australia
- C T.P. Morley Esq., FRCS 906 Medical Arts Building Toronto 5, Canada
- H Rex Money Esq., FRCS 143 Macquarie Street, Sydney, N.S.W., Australia

- C Dr. A.V. de V. Marques, Rua do Prior 22 Lisbon, Portugal
- *H Dr. R. Malmros
 Den Neurokirurgiske Afdeling
 Ved., Arhus Kommunehospital
 Arhus, Denmark
- *A J.B. Miles Esq., FRCS
 Department of Neurosurgery
 Walton Hospital, Liverpool
- E Sir Wylie McKissock, MS, FRCS Camus Na Harry, Lechnaside Gairloch, Wester Ross, Scotland
- *M I.R. McCaul Esq., FRCS Whittington Hospital, St. Mary's Wing, Highgate Hill London, N.19
 - H Donald Mackenzie Esq., FRCS Lister Buildings Auckland, New Zealand
 - M J.J. MacCabe Esq., FRCS 113 Dulwich Village London, S.E.21
 - A A.G. MacIntyre Esq., FRCS 309 Victoria Street E Alliston, Ontario, Canada
 - C Professor Louis Mansuy Hôpital Neurologique 39 Boulevard Pinel Lyon-Bron (Rhône), France
- C Andrew Masson Esq., FRCS University College of the West Indies, Mona, St. Andrew Jamaica, West Indies
- A J.D. Miller Esq., FRCS Institute of Neurological Sciences Southern General Hospital Glasgow, S.1
- M J.W. McIntosh Esq., FRCS
 Department of Neurosurgery
 North Staffordshire Royal Infirmary
 Princes Road, Hartshill
 Stoke-on-Trent, Staffs
 - H Dr. Alan Mooney 33 Fitzwilliam Place Dublin, Eire

- A W.J.M. Marshall Esq., FRCS Division of Neurosurgery Queen's University, 82 Barrie Street, Kingston Ontario, Canada
- H Dr. Lester Mount
 Neurological Institute
 710 W. 168th Street
 New York, N.Y. 10032, U.S.A.
- *H Dr. Frank Mayfield 506 Ock Street Cincinnati, Ohio 45219, U.S.A.
- *M W. Martin Nichols Esq., FRCS Aberdeen Royal Infirmary Foresterhill, Aberdeen
- H Dr. G. Norlen Sahlgrenska Sjukhuset Gothenburg, Sweden
- E D.W.C. Northfield Esq., FRCS Holly Tree Cottage Latimer, Chesham, Bucks
- M G.B. Northcroft Esq., FRCS Brook General Hospital Shooters Hill, London, S.E.18
- M E.J. Newton Esq., FRCS North Staffordshire Royal Infirmary, Stoke-on-Trent, Staffs
- *H Dr. W. Noordenbos
 Pav. 11, Wilhelmina-Gasthuis
 le Helmerstraat 104
 Amsterdam W., Holland
- A H.P. Narayan Esq., FRCS Dept. of Neurosurgery The Royal Infirmary Manchester M13 9WL
- A R. Newcombe Esq., FRCS The Kimberleys 72 Overhill Road, Dulwich London, S.E.22
- *A C. Neil-Dwyer Esq., FRCS Wessex Neurological Centre Southampton General Hospital Southampton SO9 4XY
- *E J.E.A. O'Connell Esq., MS, FRCS 2-31 Avenue Close Avenue Road, London, N.W.8

- E Professor Herbert Olivecrona, Strandvagen 57, Stockholm, Sweden.
- M L.C. Oliver Esq., FRCS 94 Harley Street London, W.1.
- *C Ayub Ommaya Esq., FRCS, NINDB National Institute of Health, Bethesda 14, Maryland, USA
- C K.W.E. Paine Esq., FRCS
 Department of Neurosurgery
 University Hospital
 Saskatoon, Saskatchewan, Canada
- M A. Paterson Esq., FRCS
 Glasgow and West of Scotland Neurosurgical Unit, Killearn Hospital
 Killearn, Stirlingshire
- H Professor Wilder Penfield, FRS The Neurological Institute 3801 University Street Montreal, Canada
- E J.B. Pennybacker Esq., CBE, FRCS Creagandaraich, Tighnabruaich, Argyll, Scotland
- E Professor D. Petit-Dutaillis (no address available)
- M D.G. Phillips Esq., FRCS Neurosurgical Unit, Frenchay Hospital, Bristol
- *M J.M. Potter Esq., DM, FRCS
 Department of Neurological Surgery
 Radcliffe Infirmary, Oxford
- A M.J. Powell Esq., FRCS 263 West Street Braintree, Massachusetts, USA
- H Dr. James Poppen The Lahey Clinic, Boston 15, Massachusetts, USA
- A Alexander R. Pate Esq., FRCS Ashley Hainault Road Foxrock, Co. Dublin, Eire
- H Dr. J. Lawrence Pool 710 W. 168th Street New York, NY 10032, USA

- C Professor R, Petr Neurosurgical Clinic Hradec Kralove, Czechoslovakia
- A D.J.E. Price Esq., FRCS Neurosurgical Department General Infirmary, Leeds 1
- H Professor H.W. Pia
 Neurochirurgische Universitäts
 Klinik, Klinikstrasse 37
 63 Giessen, Germany
- A Sohana S. Patel Esq., FRCSE Dept. of Surgical Neurology Ward 20 The Royal Infirmary, Edinburgh 3
- C Lt.-Col. G.D. Qazi, FRCSE Combined Military Hospital, Rawalpindi Coutt, W. Pakistan
- M E.J. Radley-Smith Esq., FRCS The Royal Free Hospital Gray's Inn Road, London, WC1
- C B. Ramarmurthi Esq., FRCS 2nd Main Road C.I.T. Colony Mowbray's Road Madras-4, India
- *H J. Sloan Robertson Esq., OBE, FRCS The Anchorage Carrick Castle Loch Goil, Argyll, Scotland
- C R.G. Robinson Esq., FRCS
 Department of Neurosurgery
 Dunedin Hospital
 Dunedin, New Zealand
- E Professor Sir J. Paterson Ross, MS, FRCS
 14H John Spencer Square
 Canonbury, London, N.1.
- E G.F. Rowbotham Esq., FRCS Fairholme Wylam, Northumberland
- E Professor Dorothy Russell Holcombe End Westcott, Dorking, Surrey
- M J.M. Robertson Esq., FRCS 589 Marton Road Middlesbrough, Yorks.

- M Alan Richardson Esq., FRCS Neurosurgical Unit Atkinson Morley's Hospital Copse Hill Wimbledon, London, S.W.20
- M J.G. Roberts Esq., FRCS Central Middlesex Hospital Acton Lane

Park Royal, London, N.W.10

- C D.B. Robertson Esq., FRCS Auckland General Hospital Auckland, New Zealand
- A P.M.H. Rack Esq., FRCS 41 Billesley Lane Moseley Birmingham B13 2OT
- C Dr. A.N. de Rocha Melo Rua Julio Dinis, 745, 6° Porto, Portugal
- M J.A. Russell Esq., FRCS Neurosurgical Department Killearn Hospital Killearn, Stirlingshire
- *A Julian Robinson Esq. Regional Neurosurgical Centre, Walton Hospital, Liverpool 9
 - A K. Ratnarajah Esq.
 New Jersey College of Medicine and
 Dentistry, Nartland Hospital Unit
 Division of Neurosurgery
 65 Bergen Street
 Newark, N.J. 07107, USA
- *A Dr. Hamid Rahmat Midland Centre for Neurosurgery and Neurology, Holly Lane Smethwick, Warley, Worcs.
- *C Dr. Joseph Ransohoff II, New York University Medical Center 550 First Avenue New York, N.Y. 10016, USA
- A J.M. Rice Edwards Esq., FRCS Maida Vale Hospital, London, W.9.
- C Dr. John Riishede, Rigshospitalets neurokirurgiske addeling, Tagensvej 18 2200 Copenhagen, Denmark

- H Dr. E. Scarff
 New York Neurological Institute
 168th St. & Fort Washington Ave
 New York, N.Y. USA.
- H J. Schorstein Esq. 15 Dundonald Road Glasgow, W.2.
- *M C.B. Sedzimir Esq., FRCS Regional Neurosurgical Centre Walton Hospital, Liverpool 9
- M J.M. Small Esq., FRCS
 Midland Centre for Neurosurgery
 Holly Lane
 Smethwick Warley Worse
- Smethwick, Warley, Worcs.

 H Dr. Honor Smith
 25 Park Town

Oxford

- H Professor F.A.R. Stammers, CB, TD, ChM, FRCS 56 Middle Park Road
- Wesley Hill, Birmingham 29
 H Dr. W.E. Stern
 Division of Neurosurgery
 - University of California Medical Center, Los Angeles 24 California, USA
- H Professor B. Selverstone
 New England Center Hospital
 Corner Bennett Street & Harrison
 Ave., Boston 11,
 Massachusetts, USA
- C Professor Dr. K. Schürmann Neurochirurgische Klinik 65 Mainz Langerbeckstrassed, Germany
- M P.H. Schurr Esq., FRCS
 Guy's-Maudsley Neurosurgical Unit
 De Crespigny Park
 London, S.E.5.
- *M R.H. Shephard Esq., FRCS Department of Neurosurgery Royal Infirmary, Derby
- M J. Shaw Esq., FRCS Department of Surgical Neurology Royal Infirmary, Edinburgh

- A H.R. Schaeffer Esq., FRCS Neurosurgical Clinic Royal Adelaide Hospital Adelaide, S. Australia
- M Lindsay Symon Esq., FRCS National Hospital Queen Square, London, W.C.1.
- *C Dr. W.B. Scoville 85 Jefferson Street Hartford 14, Connecticut, USA
- *A S.R. Soni Esq., FRCS
 Department of Neurosurgery
 Cardiff Royal Infirmary
 Cardiff
- *A Dr. N.C. Spanos
 Department of Neurosurgery
 General Hospital
 Nicosia, Cyprus
 - A Dr. Alberto Serrats
 Hospital General de Asturias
 Oviedo, Asturias, Spain
- A W.E. Strachan Esq., FRCS
 Neurological Department
 General Hospital
 Freedom Fields, Plymouth, Devon
- *A F.R. Strang Esq., FRCS
 Department of Neurosurgery
 Manchester Royal Infirmary
 Oxford Road, Manchester 13.
- Regional Neurological Centre Newcastle General Hospital Westgate Road Newcastle-on-Tyne NE4 6BE
- *M A.R. Taylor Esq., FRCS Royal Victoria Hospital Belfast, N. Ireland

A R.P. Sengupta Esq.,

- *M Kenneth Till Esq., FRCS Hospital for Sick Children Great Ormond Street London, W.C.1.
- H Dr. Edward Tolosa
 Seccion de Neurosirurgia del
 Policlinico, Platon 7
 Barcelona, Spain

- M E.A. Turner Esq., FRCS
 Department of Neurosurgery
 Queen Elizabeth Hospital
 Birmingham 15
- *M G.K. Tutton Esq., FRCS Department of Neurosurgery Royal Infirmary Preston, Lancs
- M R. Tym Esq., FRCS
 Division of Neurosurgery
 Wellesley Hospital
 160 Wellesley St. East
 Toronto 5, Ontario, Canada
- *M Julien Taylor Esq., FRCS Department of Neurosurgery Royal Infirmary, Derby
- A A. Tallala Esq., FRCS
 Division of Neurosurgery
 University of Southern California
 School of Medicine
 1200 North State Street
- *M John Turner Esq., FRCS Institute of Neurological Sciences Southern General Hospital Glasgow, S.W.

Los Angeles, California, USA

- H Dr. R.K. Thompson 803 Cathedral Street Baltimore, Maryland 21201, USA
- *C Dr. P. Taarnhoj, Neurokirurgisk afdeling Kobenharns Amts sygehus 2600 Glostrup, Denmark
- *C Professor G.B. Udvarhelyi Johns Hopkins University and Hopital, Baltimore, Maryland, USA
- C Dr. A. Uihlein The Mayo Clinic Rochester, Minnesota, USA
- A D. Uttley Esq., FRCS
 Department of Neurosurgery
 Atkinson Morley Hospital
 31 Copse Hill
 Wimbledon, London, S.W.20

- *C G.K. Vanderfield Esq., FRCS
 The Royal Prince Alfred Hospital
 Medical Centre, 100 Carillon Ave.
 Newtown 2042
 Sydney, N.S.W., Australia
 - H Dr. H. Verbiest Neurosurgical Department The University Utrecht, Holland
 - H Dr. Arnold de Vet 's-Gravenhage Blauwe Kamerlaan, 2, Holland
- M A.E. Wall Esq., FRCS Neurosurgical Department General Infirmary, Leeds 1
- *M L.S. Walsh Esq., FRCS Atkinson Morley's Hospital 31 Copse Hill, Wimbledon, London, S.W.20.
- *E A. Dickson Wright Esq., MS, FRCS 12 Wimpole Street London, W.1.
- H Dr. A. Earl Walker The Johns Hopkins Hospital Baltimore, Maryland, USA
- C Dr. Aloys Werner Hôpital Cantonal, Geneva, Switzerland.
- H Professor P. Wertheimer, 41 Avenue de Saxe Lyon, France
- C Dr. G. Whalen 53 Garden Road Shrewsbury, New Jersey, USA
- M R.D. Weeks Esq., FRCS
 Department of Neurosurgery
 Royal Infirmary, Cardiff
- M Bernard Williams Esq., FRCS 7 Tinley Close Queen's Drive Cottingham, East Yorkshire
- *M Professor E.S. Watkins The London Hospital Whitechapel, London, E.1.

- A Dr. J.M.D. Wissinger
 Division of Neurosurgery
 University of Texas at San Antonio
 7703 Floyd Curl Drive
 San Antonio, Texas 78229, USA
- C Peter Wu Esq., FRCS Room 650 Alexandra House, Hong Kong
- M P.J.E. Wilson Esq., FRCS 40 West Cross Lane Swansea SA3 5LS
- *A W.J. Whatmore Esq., FRCS Department of Surgical Neurology Western General Hospital Edinburgh 4
- A John Woodward Esq., FRCS Neurosurgical Unit Frenchay Hospital, Bristol
- C Dr. A.J.M. Van der Werf Parnassusweg 183 Postgiro 343463, Amsterdam-Z, Holland
- H Professor J.Z. Young
 Department of Anatomy
 University College, London, W.C.1
- H Dr. A. van der Zwan Sophia Hospital Zwolle, Holland
- A Dr. M.G. Zambellas Shabani Government Hospital P.O. Box 191 Shabani, Rhodesia.
- * Expected at this Meeting