The World Federation of Neurology sponsors an exciting website which, it is our belief, will be a world source of clinical and basic neuroscience information for our membership. The address is http://www.wfneurology.org.

The website is divided into ten useful sections as follows: Mission Statement, Officers, Committees, Research Groups, Publications, Member Societies, Meetings, Related Sites, a Help section, and a Guestbook section. Each of these is briefly described below.

**Mission Statement**

The overall mission of the World Federation of Neurology is to improve human health worldwide by promoting prevention and the care of persons with disorders of the nervous system. The full mission statement is presented on this portion of the site.

**Officers**

The officers of the World Federation of Neurology are all included here with their e-mail addresses, telephone and fax numbers. We also list the Editor of the Journal of the Neurological Sciences, the WFN Administrator, and the Editor-in-Chief of World Neurology.

**Committees**

The memberships of the various committees of the WFN are listed, including the WFN Management, Continuing Education, Constitution and Byelaws, Finance and Publications, Nominating, Public Relations, Research, and Steering Committees.

**Research Groups**

The 28 Research Groups of the WFN are named in this section. A special subsection contains details of the contact person for each of the Research Groups including fax number and e-mail address. Annual reports are available by clicking on a special report icon.

**Publications**

Publications sponsored by or affiliated with the WFN will be included in this part of the website, starting with the following two publications: the Journal of the Neurological Sciences and World Neurology. Other journals may be added in the future.

**Member Societies**

All member societies, from Argentina to Yugoslavia, are recorded in this section. A convenient alphabetized index directs users to a description of the various societies complete with address, telephone and fax numbers, and e-mails.

**Meetings**

One of the important functions of the website is to keep members up-to-date on all world meetings in clinical neurology and neuroscience. A convenient arrangement of meetings is described, broken down by years and months. For example, one may merely click on June 2001 to find a listing of meetings occurring throughout the year.

Visit the WFN website at http://www.wfneurology.org
The Newsletter of the World Federation of Neurology
VOLUME 15, NUMBER 3, SEPTEMBER 2000

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EDITORIAL STATEMENT

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CHANGE OF ADDRESS

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Continuing efforts by volunteers among our global membership have resulted in much progress in many areas of WFN interest. The reorganization of the Bye-Laws and Statutes, ably coordinated by First Vice President Kimura, has culminated in tentative approval by the 38 Delegates attending the WFN Council of Delegates meeting at San Diego in May 2000. However, we lacked a quorum, so that a final vote will be taken during the World Congress in 2001, in London.

A task force, chaired by Dr. Donna Bergen, has been commissioned for one year, to produce a strategic plan for future activities of the Research Group on Organization and Delivery of Neurological Services. The WFN Neuroethics Committee, chaired by Franz Gerstenbrand, is in formation. A mission statement has been produced and an agenda for activities is in preparation.

Worldwide, there are fewer than 35,000 neurologists or less than one neurologist for every 200,000 people. Most neurologists reside in the more industrialized nations, leaving very large regions without help in this vital area. Dr. Matthew Menken and his co-workers, Ms. Mary Baker, Ms. Jill Fardell, Dr. Don Silberberg, Dr. Pavel Kalvach, and Dr. Johan Aarli, are working to publicize this unsatisfactory state of affairs and to remediate it. Their efforts need our support and those of you who would like to help in this effort may communicate directly (Dr. Menken at mmenken712@aol.com, Dr. Silberberg at silberbe@mail.med.upenn.edu, Dr. Kalvach at efns@fkv.cz, and Dr. Aarli at johan.a.aarli@nevro.haukeland.no).

Consideration of disability in U.S. Presidents continues within the United States and full transactions of the deliberations, edited by Robert Joynt and me, will soon be published by the University of Rochester Press. This in depth consideration by politicians, attorneys, political scientists, historians, and neurologists, has had a perceptible impact upon the U.S. political system and is a relevant subject for consideration by other national groups. Neurologists should be in leadership positions for addressing this globally important topic because decisions made by the brains of our leaders control national destinies. A seminar was recently organized by T. Jock Murray, Dalhousie University, Canada. Vice Chair of the WFN Continuing Education Committee, for the American College of Physicians, designed to broaden the interest of the medical profession for addressing this ever increasing problem of aging and possible brain impairment of global leaders.

In March, Mrs. Toole and I traveled to Israel for a medical/archaeological/religious pilgrimage. During this time, I met extensively with members of the neurological community, particularly Drs. Amos Korczyn, Oded Abramsky, Natan Bornstein, and Vladimir Berginer, for planning future WFN and International Stroke Society activities.

I attended the American Osler Society, of which Past WFN President Lord John Walton and Dr. T. Jock Murray are members. The Oslerian tradition of bedside teaching of medicine and medical history survives in this group but is threatened by technological and scientific medicine which is replacing the interview and examination of patients in some fields face up to their responsibilities. We should remember that a sick mind is the devil’s workshop and a wrong step taken by a leader can engulf the world in nuclear catastrophe. The President has also raised concerns that technological advances may be taking over from the exercise of clinical judgement and professional acumen in clinical examination of the patient. This emphasis on traditional ways of examining the nervous system and on making a diagnosis based upon observations and patient history needs no second opinion. The teachers and the taught must remember that Charcot, Gower and, in the recent past, Macdonald Critchley and Denny Brown have all stood by their clinical observations in treating patients. We too should follow their traditions and not become totally subservient to technological advances, although the latter are also essential in the modern day world.

An exciting discourse by Martha Morrell
of medicine. In my opinion, we neurologists must maintain traditional ways of examining the nervous system, making diagnoses based upon observation, and using imaging for augmenting but not replacing the proven methods for elicitation of history and physical findings. Senior neurologists trained in these techniques must continue to teach the necessity for correlation of symptoms and signs of nervous system disorder with ultrasound, CCT, and MR images, and not delegate our responsibility to others.

Mrs. Toole and I attended the European Stroke Congress, originally conceived and organized by Michael Hennerici and Julien Bogousslavsky. On this occasion, Professor Franz Aichner of Wagner-Jauregg University was the organizer of the XI Congress in Vienna, Austria. The meeting was outstanding with faculty who considered not only advances in stroke diagnosis and management but who also taught courses to bring the nearly 2,000 attendees up-to-date on new methods for diagnosis, intervention, and long term management. Thereafter, the EFNS sponsored a continuing education course in Targu Mures, Romania, organized jointly by Laszlo Csiba of Debrecen, Hungary and Ion Pascu of Targu Mures, Romania. These gentlemen coordinated a very complex activity, transporting F. Mechler, P. Dioszeghy, A. Alexandrov, R. Ackerstaff, F. Gerstenbrand, K-A Hossmann, Z. Nagy, P. Kalvach, L. Vecsey, H. Clonczowska, I. Szirmai, W. Gruninger, and D. Bereczki, where they interacted with approximately 150 neurologists from Moldova, Serbia, Ukraine, Hungary, Romania, Austria, and Bulgaria. This first such meeting was so successful that it can serve as a model for future teaching courses both for the EFNS and the WFN (see photograph above).

In order to gather funds with which to underwrite WFN activities, the Management Committee has formed a research and education foundation. This vehicle is designed for fund raising with which to continue the projects outlined above and others which we prioritize as being of immediate importance. Here is a copy of the Foundation brochure for your consideration (see text below).

James F. Toole, M.D., President WFN

WFN RESEARCH AND EDUCATION FOUNDATION

We Need Your Help...

Inside you will find achievable, realistic programs and proposals that can have a direct impact on the health of people around the world.

While they sound wonderful on paper, they must be transformed into reality. The WFN Foundation cannot do this without you. Together we can have an impact – an impact that will reduce suffering and save lives.

A US 501C3 registered tax-exempt organization

The Problem...

Worldwide, there are approximately 35,000 neurologists. Based upon today’s figures, this is less than one neurologist for every 200,000 people. Many of these neurologists are centered in the more industrialized nations, leaving significant regions of the world without medical help in this vital health area. The medical communities in these regions are eager and anxious to learn more about helping their patients and improving their understanding of neurology.

The World Federation of Neurology
proposes to improve access to neurological research, which will improve the level of neurological care in selected areas of the world. Together, we can have a dramatic impact on world health.

Our Mission

The Mission of the WFN is to improve human health worldwide by promoting prevention and care of persons with nervous system disorders by:

1. Fostering the best standards of neurological practice;
2. Educating, in collaboration with neuroscience and other international public and private organizations; and
3. Facilitating research through its Research Groups and other means.

Some of Our Outreach and Educational Programs...

• Neuro-urology Program
A program for clinical neurologists, psychiatrists, neurosurgeons, nurses and other professionals, focused on the neuroanatomy and neurophysiology of bladder function, dysfunction, and the impairment of sexual function.

• Neurology International Partnership
Program seeking to address the lack of educational materials globally, by linking 200 neurology departments in developed countries with partners in less advantaged parts of the world.

• WFN Continuum Study Groups Program
A series of one year studies in continuing neurological education, establishing regular discussion groups as an aid to maintaining up-to-date professional skills. These studies are made available to neurologists in regions of the world with scarce resources.

WFN CME Accreditation Program
A sub-committee of the Continuing Education Committee is addressing the means of developing a WFN policy on CME accreditation.

WFN Initiative Against Brain Diseases
International emphasis on applying existing knowledge of brain function to current specified disorders of the brain, stimulating new research in the basic and applied neurosciences, and raising public awareness of the importance of brain disorders.

Books for Developing Countries Program
Books received for review in World Neurology are distributed to institutions in developing countries.

Residency Training Programs
The first program has been established in Honduras with five residents. Further programs to be established in areas of need.

World Federation of Neurology

Foundation Goals and Directions...

Research
Research groups will continue to play a central role in WFN activities. WFN will support the implementation of new research programs through grants and/or gifts whenever possible.

Education
WFN will improve neurological health particularly among vulnerable populations, focusing on priority health problems.

Public Relations
The WFN will work to increase visibility and credibility of its activities among neurologists, other health professionals, international organizations and the general public. This will be accomplished through publications, surveys, campaigns, a Federation website and cooperation with other medical organizations.

World Neurology
WFN’s primary newsletter will continue to be educational in emphasis and will be published quarterly.

World Health Organization (WHO)
The WFN will work with WHO to advance public health aspects of neurology and increase the distinctiveness of neurology at WHO by supplying materials and guidelines that can be used and distributed worldwide.

For More Information...

If you would like more information on the World Federation of Neurology or any of its programs, please contact:

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http://www.wfnmedical.org

(WFNR E S E A R C H A N D E D U C A T I O N F O U N D A T I O N)

on ‘Women and Epilepsy’ has shed light on many areas of which many general neurologists may not be aware. Epilepsy affects millions of women. Dr Morrell has posed many questions in this area and given most appropriate replies. I am confident that many women patients undergoing epilepsy therapy programmes will indirectly benefit from this information.

Recent observations reported by research scientists are of great importance. British and German scientists have reason to believe that they have detected specific areas in the human brain responsible for intelligence – a neural basis for General Intelligence. Duncan and his colleagues, writing in the July 2000 issue of Science, have observed that the frontal lateral cortex was the only area where blood flow increased when volunteers tackled complicated puzzles involving sequences of symbols and letters. The researchers, from Cambridge and Düsseldorf universities, came to this conclusion with the help of positron emission tomography (PET) to assess blood flow in subjects’ brains when they were asked to perform the tests. Intelligence, and its location in the brain, has been a matter of controversy since the early part of the last century when Charles Spearman elaborated on it. The brain is a very complex organ of the body and all of its innumerable functions are not easy to define accurately. However, we do hope that much more will be known about the brain in the present century that will be of great interest to neurologists.

Genetic research is also astonishing. The cracking of the human genetic code by a number of scientists particularly from the USA, Britain, France, Germany, Japan and some Asian countries over the last decade may have far-reaching effects. Recent work has identified about three billion letters in the DNA code in most of the 100 trillion cells in the human body, raising the intriguing thought that if all the DNA in the human body were put end to end, it would reach to the sun and back more than 600 times. Advances in developmental genetics of the brain have led to exciting possibilities in cell-based therapies for brain pathology and new understanding of child development and behaviour. Dr. Hevner of the Psychiatric Institute California has reviewed the genetic processes that determine the ‘brain map’. Developmental gene expression patterns are important in terms of producing the cortical regionalization of function seen in the mature subject. Indeed, we may look

(WORLD NEUROLOGY, VOLUME 15, NUMBER 3, SEPTEMBER 2000)

Visit the WFN website at http://www.wfneurology.org
forward in the next few decades to the application of genetic code discoveries, brain mapping, other brain functions and correction of developmental dysfunctions of the brain. We also hope that successful gene therapies may soon be available outside the laboratories for a number of neurological problems.

Newcastle upon Tyne Neurological Alumni

Neurologists, neuroscientists and their partners who have worked, or are now working, in the Department of Neurology of the University of Newcastle upon Tyne, either in the Royal Victoria Infirmary or in the Newcastle General Hospital, or both, are invited to attend a reception in the Porritt Suite at the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE, from 6.00–8.30 p.m. on Wednesday; 20th June 2001, during the World Congress of Neurology. The cost will be £25.00 per head.

Further details can be obtained from Lord Walton of Detchant, 13 Norham Gardens, Oxford OX2 6PS, UK (fax: +44-1865-512495). Numbers will be limited to approximately a hundred. Any neurologists wishing to attend should write to Lord Walton at that address as soon as possible, indicating how many places are required. Information about payment will be circulated later to those who have expressed their interest in attending.

WFN RESEARCH COMMITTEE RULES

The Research Committee has agreed new rules to govern its activities and those of the Research Groups represented on the Committee. They are reproduced here as an aid to existing groups and to any neurologists who may be contemplating setting up new ones.

“The Research Committee is a standing committee of the WFN. Its Chair is appointed by the President with the advice and approval of the Trustees. Members of this Committee consist of the Chairpersons of the various Research Groups. The Committee’s mission is to improve the health of patients with neurologic disease, particularly in developing countries, through the formation and support of international Research Groups. Meetings of the Research Committee will be chaired by the Chairperson or a designate and conducted under accepted democratic procedures based on Roberts Rules of Order (http://www.constitution.org/rror-00.htm). The following rules pertain to individual Research Groups (RG).

1. Each Research Group will elect its own Chair and officers, ordinarily for one renewable four-year term of office, but a Research Group may vary this arrangement exceptionally if appropriate
2. Each RG will determine its own mission, consistent with the goals and objectives of the WFN.
3. A yearly progress and financial report will be provided to the WFN Secretariat.
4. All international meetings and conferences organized by the RG must be approved by the WFN Education Committee.
5. The publication of official RG journals must be co-ordinated with the WFN Publications Committee.
6. The membership of a RG is open to all persons professionally interested in the field in question. If a qualified individual is denied membership an appeal can be made to the Research Committee or Trustees.

Related Sites

A special listing of Neurology Internet Resources appears in this section. Various neurologic disorders and topics are listed at the header, such as cerebrovascular disease and sleep medicine. By clicking on each section, individuals are taken to prominent web sites providing information on individual topics. It should be noted that the disclaimer on the initial page of the WFN website indicates that the WFN is not responsible for content linked to our website. Rather, we provide an extensive listing of particular sites which are updated on a regular basis covering a broad spectrum of different topics in world neurology. Various organizations such as the World Health Organization, the American Neurological Association, and the American Society of Neurophysiologic Monitoring are also listed. Individuals may write the Webmaster suggesting inclusion of various links on particular topics. The websites are screened and updated on a continuous basis in an attempt to keep non-existent or disappearing links from appearing on the WFN website.

Help Section

The Help Section describes the World Federation of Neurology website in general terms and makes recommendations about the appropriate hardware and software, as well as browsers, to view our site.

Guestbook

To make the website dynamic and ever changing, there is a Guestbook to encourage the membership to make suggestions for improvement. Information may be sent immediately to the webmaster, using the form on the Guestbook page, so that contributions can be implemented in rapid fashion.

Overall, it is the aim of the World Federation of Neurology to have an information-rich, up-to-date website for international neurology serving the entire WFN membership. We welcome additional comments and suggestions.
Thirty-eight countries were represented at the Council of Delegates held during the annual American Academy of Neurology meeting in San Diego. Prior to the meeting copies of the draft Memorandum & Articles of Association had been widely distributed to National Societies. These documents will act as the new ‘constitution’ of the WFN when it finally completes its transition next year to become an incorporated charity under UK law.

There was lively discussion of a number of key features of the proposals and, at the end of the day, Delegates gave them their overwhelming endorsement. The final stage is for the approval of the UK Charity Commission to be secured. Once that is done, the WFN will be ready to shed its old clothes and don its new mantle, completing a process begun some four years ago with the management consultancy report from the Charities Aid Foundation.

**New members**

Azerbaijan and Syria are the newest WFN member countries, bringing the total to 86. Their applications were considered and unanimously accepted by the Council of Delegates. We welcome them warmly to the fold.

**Committee meetings**

The other meetings in San Diego were the Management Committee chaired by President Dr. James F. Toole, and the Continuing Education Committee and the Research Committee under the Chairmanship of Dr Theodore Munsat. Over a dozen members of the CEC and an even greater number of representatives from the Research Groups were able to make the journey to California and find time to discuss WFN business. At both meetings Chairman Munsat emphasised the widespread changes underway within the WFN. In his view, the WFN is becoming a more transparent organisation with more rapid decision-making and greater democratisation through the involvement of more people in its management.

At the Research Committee meeting, attendees concentrated a great deal of effort on devising Committee Rules. These will be required for all Standing Committees as part of the detailed operational procedures for day-to-day business that will supplement the more broadly-drawn Articles of Association. Research Group membership was one area that generated keen exchanges and debate on whether the WFN should aim to be exclusive or inclusive of neuroscientists and other specialists. The meeting’s preference was for an inclusive philosophy with the vote going overwhelmingly in favour of Research Group membership being accorded “all persons professionally interested in the field in question”.

The question was asked: are Research Groups appropriately named? Few, if any, carry out research per se and most function as discussion or shared interest groups. Various alternatives were considered, including Research & Education

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7. New Research Groups may be admitted to the WFN upon suitable application to the Secretariat and approval by the Research Committee and Trustees. The application should contain a mission statement, strategies by which the mission will be accomplished, membership list and officers.

8. Funds raised by Research Groups are WFN funds; RG Chairmen must note that they are therefore subject to UK Charity Commission regulations and disbursement of such funds MUST be in furtherance of the WFN’s stated charitable objectives.

9. Research Groups may be disassociated from the WFN for just cause by a majority vote of the Research Committee and confirmation of this action by the Trustees.”

*Dr. Theodore Munsat*
Chairman, WFN Research Committee
Groups, Study Groups, Health Improvement Groups, Special Interest Groups, and Scientific Panels. At the end of the day, there was no prevailing consensus, so that ‘Research Groups’ will continue as the acceptable and familiar term of choice until a new preference emerges as a clear favourite.

Because of the important legal obligations imposed on charities registered in the UK with regard to disbursement of funds, the Committee voted to add a Rule to clarify with Research Group Chairmen that any funds they raise are, by definition, WFN funds. As such, they are subject to UK Charity Commission regulations and MUST be used to further the WFN’s stated charitable objectives. Furthermore, statements of funds held must be notified to the WFN London Office as part of the annual report of activities that each Group is now obliged to compile in order to continue its WFN association.

At the Management Committee meeting, the new format of World Neurology was warmly praised. Despite the inevitable teething problems with any major change of production method, there are already encouraging signs that production and distribution is being done economically and very professionally from India and the Committee sends its congratulations to the new Editor, Dr Chopra. There is still work to be done, however, to secure contributions of regional news items through WFN Vice Presidents and to ensure that the London Office is kept fully up-to-date with current addresses of members, so that returns of undelivered copies are kept to a minimum.

WOMEN AND EPILEPSY: MANAGEMENT ISSUES FOR WOMEN WITH EPILEPSY

Epilepsy raises special concerns for women, particularly during the reproductive years. Women with epilepsy must contend with effects of reproductive steroid hormones on seizures, as well as the reproductive health effects of seizures and anti-epileptic drugs. Epilepsy affects 1% of the population and 3 to 5 of every 1000 births are to mothers with epilepsy. It is one of the most common chronic disorders affecting women of reproductive age. Questions frequently encountered by the care provider for the woman with epilepsy are discussed below.

Is there a relationship between female hormones and seizures?
Ovarian steroid hormones alter excitability of the central nervous system at the cell membrane and at the genome. Estrogen reduces inhibition at the GABA-A receptor, enhances excitation at the glutamate receptor and increases the number of excitatory synapses. Reduced metabolites of progesterone enhance GABA mediated inhibition, increase GABA synthesis, and increase the number of GABA-A receptors. In animal models of epilepsy, estrogen increases and progesterone decreases the likelihood that a seizure will occur.

Many women with epilepsy experience changes in seizures at puberty, over the menstrual cycle and at menopause. Thirty percent or more of women with epilepsy have catamenial seizures, with more frequent seizures at menses and ovulation. Seizures at ovulation are in response to the ovulatory estrogen surge, whereas seizures in the perimenstrual period are in response to progesterone withdrawal. Seizures for many women are more random and severe over anovulatory cycles, probably because the ratio of estrogen to progesterone remains high. After menopause, 30 percent of women describe a worsening in seizure control, although 30 percent find that seizures improve.

Observations of hormone-seizure relationships have led to interest in hormonal therapies. While no randomized double blind placebo controlled trials are available, open trials of high dose progesterone (provided as natural progesterone suppositories or lozenges or as intramuscular medroxyprogesterone) have shown some success.

What is the best contraception to use in a woman with epilepsy?
Contraceptive failure is higher (over 6 percent per year) in women receiving cytochrome P450 inducing anti-epileptic medication because binding and metabolism of contraceptive steroids is increased. The commonly used “mini-pill” contains 35 micrograms or less of estrogen and may be ineffective in women on some anti-epileptic drugs. Subdermal levonorgestrel rods (Norplant) are also less effective in women receiving enzyme inducing anti-epileptic drugs. Women taking enzyme inducing anti-epileptic drugs should use alternative contraception, or receive contraceptives containing 50 micrograms or more of the estrogenic component.

Does epilepsy affect fertility?
Fertility rates in women with epilepsy are reduced by one- to two-thirds. Lower birth rates may reflect social and psychological pressures experienced by women with epilepsy. Some women with epilepsy are counseled not to have children - for fear of transmitting epilepsy, from concern that anti-epileptic drugs will cause birth defects, or from a belief that seizures will render them unfit parents. Misinformation about epilepsy fuels many of these fears. There is also a physiological basis for infertility for women with epilepsy. Up to one third of women with epilepsy have an abnormal menstrual cycle length (less than 23 days or more than 35 days). One third or more of menstrual cycles in women with partial seizures are anovulatory. Reproductive endocrine disorders in women with epilepsy include disturbances in LH concentration and pulsatile release, in prolactin and in steroid hormones. Pituitary hormone abnormalities are probably due to disruptions in hypothalamic input to the pituitary as a consequence of seizures.

Other studies suggest that women with...
epilepsy are at risk for polycystic ovaries. One study found that more than 40% of women with epilepsy had polycystic ovaries and/or hyperandrogenism. These abnormalities were most likely to arise in women on valproate. The clinical significance of polycystic ovaries in women with epilepsy is not known. Obesity, hirsutism and dyslipidemia has been described (elevated LDLs and reduced HDLs) in women with epilepsy and polycystic ovaries, but insulin resistance – which is part of the polycystic ovary syndrome – has not.

Clinical signs of reproductive health disturbance in women with epilepsy include weight gain of more than 20%, hirsutism, abnormal menstrual cycle length and mid-cycle menstrual bleeding. An evaluation should include a physical and gynecological exam, a screen for endocrine abnormalities to include thyroid hormones, estrogen, progesterone, testosterone and luteinizing hormone, menstrual diary, use of an ovulation prediction test kit, and a transvaginal ovarian ultrasound.

**Can seizure control deteriorate during pregnancy?**

Approximately one third of women with epilepsy experience more frequent or more severe seizures during pregnancy. For some women, this is related to poor medication compliance. For others, pharmacokinetic changes, such as increased volume of distribution, hepatic metabolism and renal clearance reduce total anti-epileptic drug levels. However, a drop in serum proteins during pregnancy causes a relative increase in amount of non-protein bound drug. Therefore, for highly protein bound drugs, following the free (non-protein bound) fraction will be more informative of brain levels. Dose adjustments are then made to maintain a steady non-protein bound fraction.

**What is the risk of having a child with birth defects?**

Women with epilepsy taking anti-epileptic drugs have a greater chance of giving birth to a child with a major malformation or minor congenital anomaly. For women with epilepsy receiving a single AED, the risk of a major malformation is 4 to 8%, in contrast to 2 to 4% in the general population. Anomalies are also twice as likely, affecting perhaps 15% of children born to mothers with epilepsy. The major malformations are midline facial (cleft lip/palate), cardiac (ventricular septal defect), and urogenital. These defects have been reported after exposure to all of the older AEDs used as monotherapy or in polytherapy, and after exposure to the newer AEDs used in polytherapy. Neural tube defects (anecephaly and spina bifida) arise in 1 to 2% of infants exposed to valproate in the first month of gestation and in 0.5 to 1% of infants exposed to carbamazepine. There is relatively little experience with the newer anti-epileptic drugs in pregnancy, although thus far there does not appear to be cause for greater concern. Ultimately, 2000 prospective pregnancies must be identified in order to know whether a drug is teratogenic. Prospective anti-epileptic drug pregnancy registries have been established in many countries and promise access to important and timely information regarding anti-epileptic drug mediated teratogenicity. In the meantime, selection of a newer anti-epileptic drug is appropriate if this achieves the most efficacious and best tolerated outcome.

**How do anti-epileptic drugs cause birth defects?**

Teratogenic effects of AEDs may be mediated by formation of free radical intermediates, by direct cytotoxic effects or by antifolate effects. Folic acid supplementation in nonepileptic women has been shown conclusively to reduce the occurrence of heart and neural tube defects and the recurrence risk for neural tube defects. Therefore, folic acid supplementation is now recommended as a routine health intervention for women with epilepsy.

**How much folic acid should be given to women with epilepsy?**

The United States CDC recommends supplementation with 0.4 mg of folic acid a day for women without epilepsy. Women at risk of having a child with a neural tube defect (prior child or family history) are advised to supplement with 4 mg. The precise dose for women with epilepsy has not been defined scientifically. Common practice is to supplement with a least 0.8

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**AMERICAN ACADEMY OF NEUROLOGY**

**BRUCE S. SCHOENBERG INTERNATIONAL AWARD AND LECTURE IN NEUROEPIDEMIOLOGY**

In tribute to Dr. Schoenberg’s career in training neurologists internationally in epidemiological methods, this Award salutes a young investigator selected from a developing country or Eastern Europe.

**Award** 1) Designation as recipient of the 13th Annual Bruce S. Schoenberg International Award and Lecture in Neuroepidemiology at the 53rd American Academy of Neurology Annual Meeting in Philadelphia, Pennsylvania. 2) Recipient is expected to present a 30-minute lecture, based on the selected abstract, during a Neuroepidemiology Scientific Session. 3) Certificate of Recognition from the American Academy of Neurology. 4) Reimbursement for travel and lodging expenses to attend the Annual Meeting. 5) Complimentary admission to educational programs offered at the annual meeting.

**Eligibility** Applicant must 1) Be an investigator under the age of 45 at the time of submission. 2) Be a permanent resident of a country outside the United States and Canada. 3) Have participated in significant epidemiological research in neurological diseases. 4) Have collected study's data in a developing country or Eastern Europe.

**Application Procedure** Applicant must submit ONE complete set of the following materials: 1) A current curriculum vitae indicating date of birth, training, and bibliography. 2) Application form available by calling AAN Customer Service at 1-800-879-1960 or via fax (651-685-2791). 3) An extended abstract of up to 500 words of an epidemiological study in which the applicant is (was) a significant participant researcher. (The abstract will be ineligible for separate submission to the 2001 Scientific Program).

**Deadline** All application material must be received by: DECEMBER 1, 2000, Submit materials to: The Bruce S. Schoenberg Award, Linda Kay Morgan, American Academy of Neurology, 1080 Montreal Avenue, St. Paul, MN 55116, USA.
Should Vitamin K be supplemented during pregnancy?

Infants of women with epilepsy are at higher risk for neonatal hemorrhage, probably because of mild Vitamin K deficiency related to anti-epileptic drugs. The American Academy of Neurology recommends that the mother receive Vitamin K1 10 mg/day in the last month of pregnancy. Standard obstetrical practice mandates that the neonate receives Vitamin K 1 mg IM at birth.

Can birth defects be detected before delivery?

Prenatal diagnostic testing can identify fetuses with the most common major malformations. Combined with a normal maternal serum alpha-fetoprotein, a normal anatomic ultrasound performed at 16 to 18 weeks will detect more than 95% of fetuses with neural tube defects. Therefore, women can usually be informed of any major birth defect quite early in pregnancy.

What parenting advice should be given to women with epilepsy?

Women with seizures associated with loss of consciousness may place their children at risk for accidental burn injuries (in bath, near the stove), trauma (crossing a street or playing near traffic) or injuries related to mother’s seizure related falls. While no one with uncontrolled seizures associated with impaired consciousness should drive a car, other activities must be altered as well. Yards must be fenced in, safety gates used and water thermostats set below temperatures that could burn. Children should be bathed with another adult present. Diapers should be changed on the floor. Precautions vary depending on the woman’s seizure type and house situation.

**Recommendations**

- The choice of an AED is based on seizure type
- Monotherapy should be the aim of treatment
- The decrease in effectiveness of hormonally based contraception in women taking enzyme inducing AEDs must be discussed between patient and health care provider
- Folic acid supplementation of 0.4 mg per day or greater should be provided
- AED therapy should be optimized before conception
- Prenatal diagnostic testing should be offered to include alpha-fetoprotein at 14 to 16 weeks, a structural ultrasound at 16 to 20 weeks and an amniocentesis if indicated
- If hormonal contraception is chosen in women using inducing AEDs, at least 50 µg of ethinyl estradiol or mestranol should be used
- Non-protein bound AED levels should be monitored before conception, at each trimester, in the last month of pregnancy and through 8 weeks post-partum
- Vitamin K 10 mg per day should be provided during the last month of pregnancy

**Selected References.**


G. Romé, is the main cause of epilepsy in people over 25 years of age throughout Mexico, Central and South America, China, India, sub-Saharan Africa, Indonesia and South-East Asia. Also, with growing frequency, due to tourism and migration.

**WFN ENDORSES PROPOSAL TO DECLARE NEUROCYSTICERCOSIS AN INTERNATIONAL REPORTABLE DISEASE**

An international group of neurologists and experts in neurocysticercosis, headed by Professor G. Román, Secretary for the Americas of the WFN Research Group on Tropical Neurology, recently published in the “Policy and Practice” section of the Bulletin of the World Health Organization [2000;78(3):399–406] a proposal of major public health importance aimed to control the problem of epilepsy in tropical and developing nations. Neurocysticercosis, due to infection of the human central nervous system by larval forms of *Taenia solium*, is the main cause of epilepsy in people over 25 years of age throughout Mexico, Central and South America, China, India, sub-Saharan Africa, Indonesia and South-East Asia. Also, with growing frequency, due to tourism and migration.

**Neurocysticercosis**

This parasitic infection, caused by the larval stage of *Taenia solium*, affects an estimated 2 million people worldwide. It is most prevalent in Mexico, Central and South America, China, India, sub-Saharan Africa, Indonesia and South-East Asia. The infection is acquired by the fecal-oral route, usually in areas with poor environmental sanitation and lack of infection and human neurocysticercosis are acquired from human taenia carriers. Furthermore, it is clear from epidemiological studies that a taenia carrier in the patient’s close environment is the usual source in neurocysticercosis. Human taenia carriers are extremely infective, releasing in the stools about 200,000 fertile *T. solium* eggs every day. Taenia eggs are fully embryonated, infective and highly resistant to environmental conditions, capable of remaining viable for months, particularly in warm and humid climates. Neurocysticercosis is a human-to-human infection acquired by the fecal-oral route, particularly in areas with poor environmental sanitation and lacking means of meat inspection in abattoirs and butcheries, treatment of infected animals, improvement of pig husbandry techniques, and even development of a porcine *T. solium* vaccine. The neurologists’ proposal considers that the core of the problem is the human carrier of the intestinal tapeworm. In fact, both porcine

**Vitamin K**

Vitamin K is essential for the synthesis of several blood coagulation factors, including prothrombin and factors VII, IX, and X. It is also necessary for the production of bone matrix proteins. Vitamin K deficiency can lead to hemorrhage, particularly in newborns and women taking anticonvulsants. The American Academy of Neurology recommends that the mother receive Vitamin K1 10 mg/day in the last month of pregnancy. Standard obstetrical practice mandates that the neonate receives Vitamin K 1 mg IM at birth.

**Folic acid**

Folic acid is a water-soluble B vitamin that is essential for the synthesis of DNA and RNA. It is required for the proliferation of rapidly dividing cells, such as those found in the fetal brain, and is necessary for the prevention of neural tube defects. Folic acid supplementation of 0.4 mg per day or greater should be provided before conception.

**AED therapy**

Antiepileptic drugs (AEDs) are effective in controlling seizures in most people with epilepsy. Monotherapy should be the aim of treatment, and AED therapy should be optimized before conception. Prenatal diagnostic testing should be offered to include alpha-fetoprotein at 14 to 16 weeks, a structural ultrasound at 16 to 20 weeks and an amniocentesis if indicated.

**Contraception**

Hormonally based contraception is the most common method of contraception. However, it is important to consider the potential interactions between antiepileptic drugs and hormonal contraceptives. The decrease in effectiveness of hormonally based contraception in women taking enzyme inducing AEDs must be discussed between patient and health care provider.

**Quality Standards**


**Selected References.**


Martha Morrell, MD

Columbia University, Columbia Comprehensive Epilepsy Center

New York, NY, USA
clean water. Epidemic outbreaks of seizures in closed populations — such as those observed in an Orthodox Jewish community in New York City, or in West New Guinea — are due to infection by intestinal taenia carriers. The neurologists’ proposal considers that cases of neurocysticercosis are indicators of an infective source and should be reported to the corresponding health ministries, in order to launch an epidemiological investigation to interrupt the chain of transmission by finding and treating the source of infection and potential contacts, as is customary for other contagious diseases.

Implementing international surveillance mechanisms for neurocysticercosis would also lead to an accurate quantification of the magnitude of the problem, measuring regional incidence, prevalence and mortality, thus allowing for a more rational use of the resources for eradication campaigns. The Management Committee of the World Federation of Neurology has enthusiastically endorsed this proposal. Dr. James F. Toole, President of the WFN, on behalf of the 84 member countries representing 22,000 neurologists worldwide, addressed a note to Dr Gro Harlem Brundtland, Director General of the World Health Organization, to support the implementation of this initiative.

**Sources cited**


Prof. Gustavo C. Román, M.D.
Professor of Medicine/Neurology
University of Texas
San Antonio, TX, USA

There is now less than a year before the next World Congress of Neurology on 17th–22nd June, 2001, when we look forward to welcoming many of you to what we anticipate will be a lively, stimulating, educational and we hope relaxing Congress. You should shortly be receiving the 3rd Announcement, which will contain a full programme of main themes and symposia, along with an extensive educational programme. We also hope that many of you will wish to submit abstracts of your latest research, since we wish the Congress to be of the highest scientific standard (deadline November 2000).

The daily main themes, chosen by the WFN Council of Delegates last year, are Multiple Sclerosis, Epilepsy, Stroke, Neuromuscular Diseases and Dementia. These one-day programmes have been very carefully planned to cover all aspects of each topic from epidemiology and aetiology through clinical presentation to management. Indeed it is the intention of the Scientific Committee that a general neurologist attending the main topics on all five days, would have been updated in many of the most commonly seen neurological conditions. A clinico-pathological conference has been introduced each day around teatime as...
NEWS

2nd ASNA Epilepsy Conference & 4th Indonesian Neurological Association Congress

In spite of the seeming political and economic instability in Indonesia and in the region, our colleagues successfully hosted both congresses, simultaneously, in the charming city of Surabaya with about 700 local and foreign participants. One and a half days were devoted to very interesting exchanges of information on current diagnosis, therapy and controversies in epilepsy. Some highlights were the population based prevalence of epilepsy (3/1000, Purvorejo District, Indonesia); epilepsy treatment gap of 68% due to socio-cultural factors (Malaysia); proper utilisation of evidence-based management of epilepsy (Singapore); and Indonesian experience in the management of infantile spasm with ACTH (12/15 positive response), reports of successful reduction of seizures (with temporal lobotomy and collosotomy) and measures of the socio-cultural impact of epilepsy (lower education and employment). The rest of the congress covered a wide array of interesting topics in neurosciences including pain medicine and neurosurgical interests.

Other News in the Asia and Oceania Region

The cause of the high fatality encephalitis epidemic in Malaysia in September 1998 was found to be due to a new paramyxovirus, named Nipah virus. This has recently been isolated from migrating bats, which were suspected to have caused the spread. More comprehensive information about the disease will be given during the XVIIIth World Congress of Neurology in London.

In response to the world-wide campaign aimed at decreasing the morbidity and mortality of stroke, the Philippine Stroke Society, in co-operation with the Department of Health, produced evidence-based and consensus-based guidelines on the management of stroke, taking into consideration the various problems of diagnosis and management of stroke in a different socio-economic setting. Wider participation, especially from developing countries in the region, is encouraged.

The National Delegates of the Asian and Oceanian Association of Neurology are planning to hold a meeting in March 2001 in Kuala Lumpur, Malaysia during the 5th ASNA Congress. Details will be communicated to members.

Dr. Amado San Luis,
Editorial Board Member for Asia and Oceania

The Congress and London therefore have a huge amount to offer, and we very much hope that you will pencil the Congress dates into your diary as a ‘must’ for 2001, and make every effort to join us in London next June. Congress Website: www.concorde-uk.com/wcn-2001 or contact the Congress Organisers: Concorde Services Limited 42 Canham Road, London W3 7SR, UK. Telephone: +44 (0)20 8743 3106, Fax: + 44 (0)20 8742 1010, E-mail: wcn@concorde-uk.com. You are cordially invited to London for a very warm welcome.

Dr. Richard Godwin-Austen,
Secretary-Treasurer General WFN
BOOK REVIEWS

Neck Complaints

Ed: Michael Ronthal
ISBN: 0 7506 7156-4
No. of Pages: 140 pages (paperback)
Price: £15.99
Publication Date: 2000
Publisher: Butterworth Heinemann, Boston

This pocket size book, the third of “the Most Common Complaints Series” deals with one of the most appropriate topics. Neck complaints, although among the commonest problems in day-to-day neurological practice anywhere, have not been receiving as much attention as they deserve by textbook editors. With vast clinical experience spanning over 30 years, the author has written a superb little book that covers all clinical aspects of what is usually included under the term “cervical spondylosis.” But there are more neck complaints than just that! Whiplash injuries thus deserve a chapter – a concise and lucid statement written in less than 10 small pages. Throughout the book, be it clinical feature, pathophysiology, prognosis or treatment, the author demonstrates his mastery of the subject. It is also pleasing to read the Historical Introduction as well as short case histories of patients with illustrations on Imaging. This pocket-size book is highly recommended not only for general physicians, residents and medical students but also for other medical and surgical specialists who themselves not uncommonly have neck complaints.

Prof. Athasit Vejjajiva,
Bangkok, Thailand

Neurologic Complications in Organ Transplant Recipients

Ed: Eelco F. M. Wijdicks
ISBN: 0 7506 7066 5
No. of Pages: 248
Price: £70.00
Publication Date: April 1999
Publisher: Butterworth Heinemann

This remarkable small text is the most recent in a long series of outstanding monographs in clinical neurology. The series was originally known as “Modern Trends in Neurology” then “BIMR Neurology” and now “the Blue Books of Practical Neurology”. But regardless of the name used, each of the 20 individual volumes has been written by eminent clinicians and has been of uniformly high quality. This volume is no exception. For the first time it brings together the skills of transplant surgeons, immunologists and clinical neurologists who are experienced in organ transplant issues, in the production of a most valuable and authoritative monograph. Although the average clinical neurologist sees relatively few of these patients, this book is highly recommended for all, both for a thorough initial reading and then as a reference source. The writing is clear and concise and the editing first-rate.

Theodore L. Munsat, MD,
Boston, USA

Benign Childhood Partial Seizures & Related Epileptic Syndromes

Ed: C.P. Panayiotopoulos
ISBN: 0 86196 577 9
No. of Pages: 406
Price: £60 / US$105
Publication Date: 1999
Publisher: John Libbey & Company Ltd

This book gives an excellent review of the benign partial seizures in the paediatric age group. The first part deals with diagnosis of epilepsy and nomenclature with emphasis on epileptic syndromes. The role of EEG in the diagnosis and management of epilepsies is well described. It is followed by a review of Rolandic Seizures. The third part gives an exhaustive description of occipital seizures related with epileptic syndromes. There is a good description of early onset benign childhood occipital seizures or Panayiotopoulos Syndrome which is still not well recognised. Occipital seizures are often confused with migraine. The last part deals with Landau-Kleffner Syndrome, a condition which may not prove to be so benign to find a place in a book on benign childhood epilepsies. There is much repetition of the facts which could have been avoided. Some of the syndromes described are still to be recognised by the International Commission on classification of epilepsies. All those dealing with Childhood epilepsies will find this book interesting and helpful.

I.M.S. Sawhney,
Assistant Editor

Epidemiology of Pain

Ed: I K Crombie, P R Croft, S J Linton, L LeResche, M Von Korff
ISBN: 0-931092-25-6

Epidemiology of Pain is a collaborative book written by a special IASP Task Force on epidemiology. The general purpose of the book is to gather all meaningful published information about painful chronic conditions, study them with epidemiological methods, review the specific problems and pitfalls in epidemiological studies of pain, and finally identify the most important objectives for future research. The first third of the book refers to the general methods of epidemiology and to the special fields of gender, cross-cultural, children and old people chronic pain syndromes. The largest part of the book is devoted to the main specific chronic painful pathologies. The whole work is a unique mine of information intelligently collected and criticized. It should be warmly recommended to all students, practitioners and researchers interested in the epidemiology of pain.

Thomas De Broucker,
St Denis, France

Neurologic Catastrophes in the Emergency Department

Ed: Eelco F. M. Wijdicks
No. of pages: 266
Price: £42.50
Publication Date: 1999
Publisher: Butterworth Heinemann

This book is an informative and useful guide to the recognition and management of all neurological conditions that may present to the emergency department. It is written in a readable and straightforward style and is packed with clinical information. It deals with all aspects of brain injury, including head injuries, subarachnoid haemorrhage, stroke and other neurological causes of coma. It is an excellent resource for all emergency doctors.

No. of Pages: 321
Price: $61.00
Publication Date: 1999
Publisher: IASP Press

Epidemiology of Pain

No. of Pages: 321
Price: $61.00
Publication Date: 1999
Publisher: IASP Press

Books for developing countries

The London Office of the WFN Secretariat keeps a stock of neurological text-books that have been received for review in World Neurology and can be forwarded to institutional / departmental libraries in developing countries. A list is available on application to the Administrator. If you are interested in any of the books and can either collect them when visiting London or pay for the mailing costs (postage can be expensive) please let us know.

Visit the WFN website at http://www.wfneurology.org
Special Book Highlight:
Spinal Drug Delivery
Edited by T.L. Yaksh

Given the advance in the area of spinal drug delivery and its broadened role, this book is a timely compendium dealing with specific issues related to the spinal delivery of drugs.

The book provides a scholarly and integrated consideration of the present state of knowledge, and frames the discussion in such a way as to encourage the further development of new agents and techniques with increased safety and efficacy.

ISBN 0-444-82901-6, Price NLG 250 (€ 113.45) US$ 127
To order and for more details, go to: http://www.elsevier.com

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Elsevier Science will have a booth at the meetings listed below. Please visit our booth to browse the latest releases in our book program, see online demonstrations of our electronic products and services, and to get free sample copies of our journals.

Child Neurology Society, 25–28 October 2000, St. Louis, USA
Society for Neuroscience, 4–9 November 2000, New Orleans, USA
American Academy of Neurology, 5–12 May 2001, Philadelphia, USA
XIV International Congress on Parkinson’s Disease, 28–31 July 2001, Helsinki, Finland

We look forward to seeing you!

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Sleep Medicine
Volume 1, 4 issues
ISSN 1389-9947
Editor-in-Chief: Sudhansu Chokroverty

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Announcing a new journal in 2001
Clinical Neuroscience Research

Editor-in-Chief: William E. Bunney, Jr., M.D., Department of Psychiatry, University of California, Irvine, CA, USA.

Clinical Neuroscience Research is an international scientific journal and the official publication of the Association for Research in Nervous and Mental Disease (ARNMD). The focus is on basic neuroscience and clinical investigations, which further our knowledge of cognition, mood, behavior and motor function of both normal and abnormal brain function. It will include articles on the cellular, neuropsychological, neurophysiological, and molecular functioning of the central nervous system. Clinical Neuroscience Research will publish original and review papers that relate to epidemiology, diagnosis, treatment, and the pathophysiology of brain disorders.

For more details on the Journal, go to: http://www.elsevier.com/locate/clicres
For more details on the Association, go to: http://www.arnmd.org
In each issue of World Neurology you will find specific information related to the Journal of the Neurological Sciences, the official organ of the World Federation of Neurology. In this issue, we want to highlight a forthcoming Special Issue on Amyotrophic Lateral Sclerosis.

In December this year there will be a special issue of the Journal of Neurological Sciences devoted to ALS and related disorders. This issue will contain a peer-reviewed selection of the most interesting and important contributions to the 10th International Symposium of ALS/MND held in Vancouver last year. This meeting – the largest ever in the series – attracted clinical and basic scientists, health professionals (and some people with ALS) from all over the world. The papers cover the key topics in this field, from molecular pathogenesis to quality of life and palliative care. We are confident that the issue will appeal to all who are working in neuromuscular disorders and neurodegeneration.

Nigel Leigh
Wim Robberecht (Editors)
Michael Swash (Supplement Editor)

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of acute neurological catastrophes at their early stage. It focuses on rapid but accurate neurological assessment, on useful bedside tests, and particularly on interpretation of neuroradiologic images and first priority of management. The book is divided into two parts. First part of the book includes five chapters under the theme: Evaluation and management of evolving catastrophes in the neuraxis including detailed description of: altered arousal and coma; brain edema; status epilepticus; acute obstructive hydrocephalus; acute spinal cord compression. The second part of the book contains the description of Catastrophic neurological disorders due to specific causes including: aneurismal subarachnoid hemorrhage; intracerebral hematomas; major stroke syndrome; acute bacterial infections of the central nervous system; acute encephalitis; acute white matter diseases; traumatic brain and spine injury. Every chapter includes clinical presentation, interpretations of neuroimaging and other diagnostic tests, first priority of management and predictors of outcome for each disorder. The book brings a very clear explanation of complex topics and an excellent presentation of the neuroimaging possibility.

Prof. Slava Podobnik Sarkanj, Zagreb, Croatia

Normal and Pathologic Development of the Human Brain and Spinal Cord

Ed: Maria Dambska, Krystyna E Wisniewski
ISBN: 0-86196-591-4
No. of pages: 192
Price: £45.00 / US$79.00
Publication Date: 1999
Publisher: John Libbey & Co. Ltd

This is an excellent, beautifully illustrated book, a very important contribution to the literature on developmental neuropathology. The two co-authors are distinguished experts both on clinical neurology and neuropathology. For this reason, the volume is largely based on extensive personal experience. Part One deals with the normal development of CNS from the morphological point, including data from biochemistry, immunology and genetics. Part Two reviews the aetiology of abnormal CNS development and presents all pathologic syndromes. Both parts are well integrated and balanced. This is an essential reference book for all those dealing with clinical and morphologic problems of CNS malformations.

Prof. Ain-Ellmar Kassik, Tartu, Estonia

CALENDAR

2001

International Symposium on the West Syndrome and Related Infantile Epileptic Encephalopathies (ISWS)
10–11 February 2001
The Yayoi Memorial Hall, Tokyo Women’s Medical University, Shinjuku-ku, Tokyo, Japan
Contact: Dr. Yukio Fukuyama, MD, Secretariat, ISWS, C/o Child Neurology Institute, Samban-cho TY Plaza, SFI, 24 Samban-cho, Chiyoda-ku, Tokyo, 103-0075, Japan
Tel: +81-3-3238-1580
Fax: +81-3-3238-1502
E-mail: yfukuyam@sc4.so-net.ne.jp

American Academy of Neurology Annual Meeting and Exhibition
5–12 May 2001
Philadelphia Convention Center, Pennsylvania, PA, USA
Contact: Judy Larson, 2221 University Avenue, SE S. 336, Minneapolis, MN 55414, USA
Tel: +1 612 623 8115
Fax: +1 612 623 3504

6th Meeting of the European Society of Neurosonology and Cerebral Hemodynamics and 9th Meeting of WFN Neurosonology Research Group (preceding the 10th European Stroke Conference)
13–15 May 2001
Lisbon, Portugal
Contact: Dr. Victor Oliveira, Hospital St. Maria, Department of Neurology, P-1699 Lisbon, Portugal
Secretariat: EuroCongressos, R. Francisco Andrade, 4, P - 1700-198 Lisbon, Portugal
Tel: +351 218 472 577
Fax: +351 218 473 746
E-mail: eurocongressos@mail.telepac.pt

XVII World Congress of Neurology
17–22 June 2001
London, UK
Venue: Earls Court 2, Earls Court Olympia, Warwick Road, London SWS, UK
Contact: WCN 2001, Concorde Services Ltd, 42 Canham Road, London W3 7SR, UK
Tel: +44 (0) 20 8743 3106
Fax: +44 (0) 20 8743 1010
E-mail: wcn@concorde-uk.com

Policy Statement

Although World Neurology is the only medium to go to every neurologist in the world (approximately 22,000 in 84 countries), it is not possible to publicise every neurological meeting that takes place. The prime aim of the Calendar is to notify those meetings that are sponsored by the WFN (World, Continental and Regional Congresses), its Research Groups and Corporate Members of the Research Committee. Notifications of meetings of National Societies are included only if there is significant international contribution. If space allows, others may advertise in the Calendar, in which case a charge of £125 is made. Contact Mr. Keith Newton at the WFN Secretariat, 12 Chandos Street, London W1M 9DE, UK. E-mail: WFNLondon@aol.com for further information.


XIV International Congress on Parkinson’s Disease
28–31 July 2001
Finlandia Hall, Helsinki, Finland
Contact: CongCreator CC Ltd, PO Box 762, FIN-00101 Helsinki, Finland
Tel: +358 9 4542 190
Fax: +358 9 4542 1930
E-mail: secretariat@congcreator.com

126th Annual Meeting of the American Neurological Association
30 September – 3 October 2001
Hyatt Regency Hotel, Chicago, Illinois, USA
Contact: American Neurological Association, 5841 Cedar Lake Road, Suite #204, Minneapolis, MN 55416, USA
Tel: +1 612 545 6284
Fax: +1 612 545 6073
E-mail: wilkerson@compuseerve.com

European Charcot Foundation Symposium on The Progressive Phase of MS; its Pathology and Treatment
(including the 7th European Charcot Foundation Lecture by Prof. P. Soelberg Sorensen on The role of IVIG in the Treatment of Secondary Progressive MS)
18–21 October 2001
Venice, Italy
Contact: European Charcot Foundation, Heiweg 97, 6533 PA Nijmegen, the Netherlands
Tel.: +31-24-3561954
Fax: +31-24-3560920
E-mail: info@charcot-ms.org