WORLD NEUROLOGY

THE NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

VOLUME 17, NUMBER 3, SEPTEMBER 2002

WFN CME PROGRAM EXPANDS

"A very good, unique educational program for neurologists"

(Participant from Croatia)

The WFN CME program is targeted at countries where there is an unfulfilled need for neurological educational material. To date, twenty-seven countries are participating in the program. Participating countries and their coordinators are:

Bulgaria (Ekaterina Titianova), Croatia (Slava Podobnik)#, Cuba (Francisco Miyares), Cyprus (Marios Pantziaris), Czech Republic (Otakar Keller)#, Egypt (Anwar Etribi)*, Ethiopia (Zenebe Melaku), Guatemala (Luis Salguero), Honduras (Marco Medina)#, Hungary (Anita Kamondi)#, India (Sudesh Prabhakar), Jordan (A. A. Kurdi), Lebanon (Antoine Aouad), Lithuania (Jalius Jatuzis)#, Morocco (Mohamed Yahyaoui)#, Pakistan (Sardar Alam), Philippines (Amado San Luis), Poland (Zbigniew Stelmasiak), Romania (Cristina Tiu), Russia (Alla Guekht)#*, Slovenia (Simon Podnar)#, South Africa (Pierre Bill), Sri

(cont. on page 4)

Dr. Jale Agaoglu, participant in the WFN CME Study Groups Program Meeting on "Tumors of the Brain and Spinal Cord" held in Istanbul, Friday, April 5th, 2002, receives her WFN Certificate from the Education Co-ordinator for Turkey, Professor Aksel Siva.

DISTRIBUTION OF 'WORLD NEUROLOGY'

Important Announcement

At a meeting of the Editorial Board of *World Neurology* held in Denver during the annual conference of the American Academy of Neurology, it was agreed that all readers should be consulted on how they would like to receive future copies of the publication. Because *World Neurology* is accessible on the WFN Website, it is proposed that each issue may either be read or downloaded from the site and that this electronic format should be the prime means of distribution to the membership.

Alternatively, readers may prefer to be sent a copy as an e-mail attachment. Finally, there may be those who do not have Internet access or who choose to continue to receive a hard copy of the newsletter, for these the current arrangements will remain unchanged. A number of factors lie behind this proposal, including cost issues, delays in current distribution provisions by surface mail, etc.

Readers are asked to notify the London Office at the earliest if they wish to continue to receive future issues by either (a) e-mail attachment or (b) hard copy. Otherwise, it will be assumed that a member is willing to access his or her copy on the WFN Website. **These new arrangements are likely to come into effect early in 2004.**

It would also be helpful to the Federation if members could supply current e-mail addresses when responding, together with the website address of their national neurological society, so that our records may be kept up-to-date. Finally, please indicate below whether or not you wish to receive advertising information.

Editor-in-Chief

ALSO IN THIS ISSUE:

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National neurological society website: .....

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WORLD
NEUROLOGY

THE NEWSLETTER OF THE WORLD FEDERATION OF NEUROLOGY

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EDITORIAL

One of the major aims of the WFN is the expansion of neurological services globally. Neurological Associations of 90 countries are the members of this august body but this number is still less than 50% of the countries of the world. There are few nations not affiliated to the WFN that have neurological services. Millions of people do not have access to any neurological services in their countries and this requires the particular attention of the WFN for the training of neurologists in these regions. The Education Committee of the WFN under the chairmanship of Dr Theodore Munsat is engaged in a marvelous effort to expand the WFN CME programme, the report of which is available in this issue. The help of the American Academy of Neurology with this programme is gratefully acknowledged.

This issue again carries the important announcement about the distribution of *World Neurology*. Readers are requested to respond so that these major mailing costs may be reduced. The funds thus saved can be utilized for other activities of the WFN. The President, Dr Jun Kimura, has mentioned in his column the progressive activities of the WFN during the last year. One major activity was the successful culmination of the Xth International Congress on Neuromuscular Diseases at Vancouver in July 2002.

One of the priority areas of the World Health Organization is to control the menace of tobacco consumption around the world and its adverse effect on health. Apart from its deadly effects on the cardiovascular and other systems of the body, tobacco precipitates some major neurological problems. Tobacco chewing occurs relentlessly in some of the South Asian countries with resultant oral cancer incidence the highest in the world. The World Federation of Neurology, at its Council of Delegates meeting in Vancouver, passed a resolution expressing strong support for WHO's initiative in undertaking a campaign against tobacco. Efforts to banish the use of tobacco should be the aim of every individual, organization and Government. Tobacco cessation clinics need to be encouraged in all the major medical centres and should indeed become part and parcel of the De-addiction centres of drug and alcohol abuse.

A write up on ALS by Nigel Leigh and his associates from the King's MND Care and Research Centre - King's College London merits our appreciation. The authors have particularly focused on advances in treatment, care, genetics and pathogenesis. The trials on riluzole have shown some hope. Some of the other trials on insulin like growth factor I, brain-derived neurotrophic factors and ciliary neurotrophic factors have not shown any benefit. It is hoped that in the near future, research in molecular biology, tissue culture and perhaps stem cells from clones might bring some relief for patients suffering from MND. Millions suffer from this disease and the most traumatic aspect is the prolonged agony and misery of the patients and their families.

The World Federation for Neuro-rehabilitation is expanding and exists to meet a growing need. Some neurological diseases are devastating in terms of millions of working days lost through patients suffering from these conditions and the colossal financial burden this places on society. Neuro-rehabilitation should be an important part of any neuro-centre. However very few centres offer such facilities, indeed in many parts of the world they are non-existent, particularly in the developing countries. The World Federation for Neuro-rehabilitation is doing a tremendous job and its expansion is welcome. The Cochrane Neurological Network is another important organization which is providing first-class services. CNN emphasize that the time has come when intervention related to prevention, acute treatment, management and care organization must be implemented and evaluated in a scientific way. A report in this issue highlights the aims and object of this Network which is working closely with the WFN and since both have common goals, their joint efforts should be more rewarding.

That brain cells have healing power is an interesting piece of research published in the August issue of *Cell*. By injecting growth factors into rat brains, the Japanese researchers were able to stimulate 'progenitor' cells to grow into mature neurons. It has been discovered that certain immature cells in the brain can be coaxed to mature in to functioning cells, replacing damaged ones. This is the way to allow the brain to use its own tools to make repairs. This has been remarked in a recent interview by Ramesh Raghupathi, a research assistant professor in the Department of Neurosurgery at the University of Pennsylvania. It has long been believed that the adult mammalian CNS is incapable of significant self-repair or regeneration. Many other studies have used transplants of stem cells from blood or fetal stem cells to try to repair brain damage. Recent neuro-scientific discoveries could represent a step forward and some hope for neurologists and their patients.

A recent claim that caffeine could act as a protective agent for the prevention of Alzheimer's disease needs to be thoroughly probed further. Research conducted at the Faculty of Medicine in Lisbon, Portugal has shown that consumption of caffeine - specifically coffee - had some relationship to the development of Alzheimer's but the reasons for its protective attributes are not clear. It has been found that people with Alzheimer's drank 74 mg of caffeine a day - the equivalent of one cup of coffee or 2–3 cups of tea. Those without the disease took an average of 200 mg per day. It is too early to jump to any conclusions and more multi-centre studies are needed before this hypothesis can be accepted.

Jagjit S. Chopra,FRCP, PhD
Editor-in-Chief

PRESIDENT'S COLUMN

Time flies and one year has already passed since the beginning of the new term, which began in June 2001 at the end of the World Congress of Neurology in London. I am pleased to report that during this interim we have initiated some of our priority projects to advance the primary mission of the WFN. As summarized in the Trustees' reports, which can be accessed on our web site (www.wfneurology.org), these center on promotion of improved care of patients through education of neurologists globally.

The new Articles of Association, which we adopted last year, stipulate that the organization holds a Council of Delegates (COD) meeting yearly. Accordingly, we had our first Annual General Meeting (AGM) on July 7, 2002 in Vancouver shortly before the Opening Ceremony of the Xth International Congress on Neuromuscular Diseases (Xth ICNMD). At the COD meeting, attended by 24 delegates (and 4 proxies), Dr. Richard Godwin-Austen was re-elected unopposed as Secretary-Treasurer General and Dr. Marianne de Visser

from the Netherlands was elected to fill the Trustee post falling vacant through Dr. Roberto Sica's retirement. I would like to thank Dr. Sica for his active participation and important contribution during his tenure as a Trustee and Chair of the Membership Committee, and welcome Dr. de Visser, whose term begins immediately. The minutes of the COD meeting are available for your perusal on our web site, which has recently been rejuvenated by Dr. Bento de Sousa, our new Webmaster, working with the Publications Committee chaired by Dr. François Boller.

After the COD meeting, I attended the Xth ICNMD, a meeting held quadrennially as a function of the Research Group on Neuromuscular Diseases (RGNMD), which is under the new leadership of Arthur Asbury as Chairman and Gerard Said as Secretary. I wish to take this opportunity to congratulate Andy Eisen, the President of Xth ICNMD, and George Karpati, Chair of the Program Committee, for a job well done in organizing a most successful Congress, despite the adverse political and economical climate. During the Gala Dinner, I had the privilege of handing out Lifetime Achievement Awards to selected senior scholars who have contributed substantially in this field. I thank the organizer for asking me to participate in this timely ceremony that, I hope, will mark the beginning of a tradition. At the Executive Committee meeting of RGNMD, Istanbul was selected as the next venue, winning over six other equally attractive proposals. I have asked Dr. Jagjit Chopra, the editor of *World Neurology*, to invite Dr. Eisen to submit a report on Xth ICNMD to World Neurology to give us his reflection as President of the Congress. The abstracts of the scientific papers presented in this conference have already appeared in the *Journal of the Neurological Sciences*, the official Journal of the World Federation of Neurology (Volume 199, Supplement 1, July 15, 2002).

All in all, I am very pleased with the progress we have made over the past year on many different fronts, and look forward to working with you to further the cause of the WFN during this and ensuing years.

Jun Kimura, MD
President, WFN

WFN REGIONAL REPORTS AND NEWS

WFN Research Group Report

The Research Group on Dementia has awarded the first "Luigi Amaducci Memorial Travel Fellowship" to Dr. Patricia Montanes from the Department of Psychology of the University de los Andes in Bogota, Colombia, for her work presented at the last WFN conference in London June 2001. The Award honours Professor Luigi Amaducci, past Chair of the Group and Chair of the Neurology Department of the University of Florence. Professor Amaducci was instrumental in the resurgence of the study of dementia in Europe and has been the mentor of many young colleagues. He established several initiatives for the elderly in his country as well as at the European Union. Dr. Piero Antuono and the Chair of the Research Group on Dementia, Dr. Peter Whitehouse, presented the award with a prize of $3,000 to Dr. Montanes on the occasion of the International Alzheimer Conference in Stockholm, July 19th 2002. For further information on the Award, please contact Dr. P. Antuono at antuono@mcw.edu.

From left to right: Dr. Piero Antuono, Medical College of Wisconsin, Dept. of Neurology, Milwaukee, WI, USA; Dr. Patricia Montanes, Universidad de los Andes, Dept. of Psychology, Bogotá, Colombia; Dr. Bengt Winblad, Karolinska Institute, Dept of Geriatrics, Stockholm, Sweden; Dr. Peter Whitehouse, Case Western Reserve University, Dept. of Neurology, Cleveland, OH, USA

(WFN CME Program – cont. from page 1)
Lanka (Udaya Ranawaka)#, Tunisia (Najoua Miladi), Turkey (Aksel Siva)#, Uruguay (Mario Medici and Laura Fojgiel), Yugoslavia (Slobodan Apostolski and Jelena Drulovic)#
(*sub-centres established; # certificates awarded.)

Courses so far have included: "Epilepsy", "Iatrogenic Neurology", "Neuroimmunology", and "Neck and Back Pain". Those planned for the future include "Acute Stroke Management", "Sleep Disorders", "Headache Update", and "Critical Care Neurology".

An education co-ordinator, appointed by the national neurological society, is responsible for the organisation of the program in their country. Member countries receive two free mailings a year of three titles of *Continuum*. Generously donated to the program by the American Academy of Neurology, *Continuum* comprises specially designed, problem-based, interactive courses. The WFN journal, *Seminars in Clinical Neurology*, is also used in the program, and the first issue on "Bladder, Bowel and Sexual Dysfunction" is now available on-line (http://www.wfneurology.org/educational).

Discussion groups enhance the effectiveness of the courses, and the progress of the program in each country is monitored by the WFN through participant feedback. To date, responses are positive and encouraging, with individuals emphasising the relevance of courses to their daily clinical practice, the opportunity to access information frequently unavailable to them, and the benefits of well organised discussion groups that enhance the courses.

New countries wishing to participate in the program are welcome. Further details are available from Dr. Theodore Munsat, Director of the program (e-mail: theodore.munsat@tufts.edu; fax: +1-617-527 9467), or Monica Brough, Administrative Assistant (e-mail: broug@globalnet.co.uk; fax: +44-1689-874 318).

JUNIOR TRAVELLING FELLOWSHIP REPORTS

I wish to express my deepest gratitude to the WFN for awarding me a WFN Junior Travelling Fellowship 2002. It gave me a chance to attend the 8th International Conference on Alzheimer's Disease and Related Disorders held in Stockholm, Sweden, from 20 to 25 July 2002.

The scientific programmes were very useful to me to update my knowledge. This conference gave me an excellent opportunity to interact with many pioneers from all over the world and obtain first hand information. I presented a poster entitled "Serum Cobalamin Levels in Dementias of Varied Etiology", which, I believe, aroused certain interest among participants. Vitamin B12 therapy may prove beneficial particularly in an incurable disease like Alzheimer's and this therapy is cost-effective for a developing country like India. I would like to emphasize the importance of such a fellowship for my state since I was the only participant at the conference from Rajasthan in India. The personal interaction and the knowledge gained would be very useful to establish a cognitive disorders clinic at my institution.

Dr. Rajendra Singh Jain,
India

I am Dr. Siam Said Ahmed one of the winners of the GlaxoSmithKline awards this year. I want to thank the World Federation of Neurology for the award and for giving me the opportunity to attend the World Federation of Neuroradiological Society's conference in Paris, and to present my poster which was a very interesting experience for me. The conference allowed me to participate in an international event and to update my knowledge as regards my specialty and to meet different colleagues from different countries and acquire new friendships as well. Thank you very much.

Dr. Siam Said,
Egypt

XTH INTERNATIONAL CONGRESS ON NEUROMUSCULAR DISEASES, VANCOUVER, 7–12 JULY 2002

Nine hundred and thirty five delegates (including 142 invited speakers) from 55 countries participated during the five day, intensive and exciting scientific program. The program included: invited teaching posters, morning lectures, plenary lectures, symposia, meet the professor, workshops, interactive sessions and several sponsored symposia.

The Congress was opened by Dr Arthur Asbury, chair of the RGNMD-WFN Executive Committee. The Opening Ceremony included a presentation of a British Columbia traditional First Nations "Talking Stick" to Dr Andrew Eisen, President of the Congress. It is hoped that the stick will be passed on to successive congresses establishing a tradition of continuity. During the Gala Banquet, at which there were 670 participants, the talking stick was handed over to the Organizers of the 2006 International Congress on Neuromuscular Diseases to be held in Istanbul.

Dr George Karpati, chair of the scientific program, summarized the past meetings at the Opening Ceremony and introduced the first Jerry Lewis lectureship given by Dr C T Caskey. He presented an impressive talk "The impact of molecular medicine upon the practice and research in the new century". An equally "upbeat" talk by Dr RG Worton "Conclusions and reflections" highlighted the Closing Ceremonies.

From left to right: George Karpati, Chair Scientific Program Committee; Arthur Asbury, Chair of the RGNMD-WFN Executive Committee; Jun Kimura, President WFN; Andrew Eisen, President Xth ICNMD.

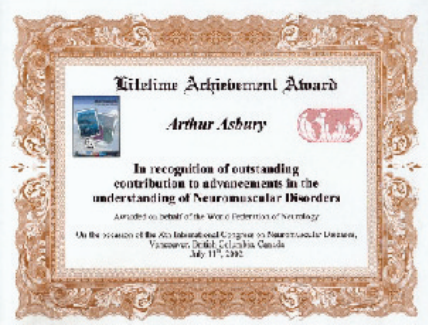
The scientific program was outstanding, setting the tone for the beginning of the decade. The world's best explored the molecular biology, genetics and therapeutic potential including stem cell and gene transfer of a wide range of neuromuscular disorders.

Several new initiatives were introduced at this Congress. It is hoped these will become traditional. The "Talking Stick" has already been alluded to. The engraving space has room for the next 10-15 congresses to occur over the next 40-. A young Investigator Advisory Committee was struck to adjudicate the distribution of five Fellowships (each 1000 UK pounds) generously donated by the World Federation of Neurology. They allowed young scientists to come from Hungary, Brazil, Russia and Turkey.

Life Time Achievement Awards were given by Dr. Jun Kimura on behalf of the World Federation of Neurology at the Gala Banquet to honour senior physician-scientists who have devoted their careers to the betterment of understanding and treating neuromuscular disorders. The list of recipients and a sample of the certificate is shown below.

Asbury A, Banker B, Buchtal F, Carpenter S, Drachman D, Dubowitz V, Dyck P, Ebashi E, Emery A, Engel A, Engel W.K, Fardeau M, Fukuyama Y, Hausmanowa-Petrusewicz I, Kakulas B. Lambert E, Layzer R., McLeod J.G., Morgan-Hughes J., Newsom-Davis J, Rowland L.P., Serratrice

G., Satoyoshi,E, Sugita H., Thomas P.K., Trojaborg W, J., Walton of Detchant, Lord



Twenty seven eminent and senior neurologists who have devoted their careers to the study of neuromuscular disorders are the recipients of the first Lifetime Achievement Award certificates.

TOBACCO AND THE WHO

At the Council of Delegates meeting in Vancouver in July, the following motion was put to those present:

The Director-General of the World Health Organization, Dr Gro Harlem Brundtland, has initiated a first comprehensive action against tobacco smoking. Recognising the serious effects of smoking upon the nervous system, the World Federation of Neurology strongly supports this initiative. Prevention aspects are of major importance also in patients who have been diagnosed with early manifestations of neurological disease (transient cerebral ischemia, mild cognitive impairment due to vascular dementia).

The World Federation of Neurology therefore calls upon its members to incorporate anti-smoking and physical training programmes in patient counselling as well as in multidisciplinary neuro-rehabilitation of patients suffering from such disorders. In addition, the national neurological associations are encouraged to allocate a part of the annual Brain Awareness Week to disseminate information on the negative effects of smoking and physical inactivity, and to promote healthy, active and smoke-free lifestyles in the prevention of brain disorders. Whenever engaged in making policy decisions, neurologists should promote preventional aspects by physical and anti-smoking campaigns.

First Vice-President Professor Johan Aarli spoke about the WHO anti-smoking initiative in his capacity as Chairman of the Public Relations & World Health Organization Liaison Committee. The benefits to patients were clear and it was important for the WFN to be seen to ally itself with the WHO on this important initiative against tobacco and in favour of physical exercise. Delegates gave their approval on a show of hands.

ALS: ADVANCING TOWARDS THE CAUSE, IMPROVING CARE

The scope of the challenge

Amyotrophic Lateral Sclerosis (ALS; motor neuron disease, MND) remains a devastating disease. Although in rare cases people with ALS may survive for many years (witness the example of Professor Stephen Hawking), more commonly it kills within 3-5 years from the onset of symptoms. Indeed, the period from diagnosis to death is about 15 months on average. Death is usually caused by respiratory failure due to progressive weakness of the respiratory muscles, unless patients opt for long-term ventilatory support. The latter has its advocates, but unfortunately the disease progresses and patients may eventually become 'totally locked-in', unable to communicate in any way. Choices about end of life care, including intermittent positive pressure ventilation (non-invasive ventilation, NIV) and permanent assisted ventilation (PAV) with a tracheotomy, can be difficult for all concerned. Maintaining dignity, autonomy and a good quality of life are the guiding principles for all care, but the social, emotional and ethical issues are complex, and differ for each individual and family. Increasingly, people with ALS are cared for by multi-disciplinary teams, comprising therapists, dieticians, nurses, palliative care workers, pulmonologists, neurologists, and others. The challenge is to predict and pre-empt crises, ensuring the timely provision of appropriate support, without invading the privacy and autonomy of the individual and the family. In many parts of the world, however, these resources are not available. Treatment with riluzole slows disease progression a little, but there is an urgent need for more effective (and cheap) therapies to halt the disease at an early stage. Finding such treatments is likely to de-

THE BRUCE S. SCHOENBERG INTERNATIONAL AWARD AND LECTURE IN NEUROEPIDEMIOLOGY

Endowed by GlaxoSmithKline

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

Presentation

Recipient is expected to give a 20-minute presentation based on the selected abstract during a neuroepidemiology scientific session at the AAN 55th Annual Meeting in Honolulu, Hawaii.

Recipient will receive: • Certificate of recognition • Complimentary registration for 55th Annual Meeting, which will be held March 29 – April 5, 2003 (Reimbursement for 55th Annual Meeting travel and lodging expenses) • Recognition at 2003 Awards Luncheon at 55th Annual Meeting

Eligibility • Must be an investigator under the age of 45 at the time of submission • Must be a permanent resident of a developing country outside the United States and Canada • Must have participated in significant epidemiological research in neurological diseases

Application Procedure

Applicants should submit ONE complete set of the following materials (for nominations submit items for nominee): (1) Completed application form (e-mail cadams@aan.com for copy of form) (2) Current curriculum vitae including date of birth, training, and bibliography (3) Maximum 500-word abstract of an epidemiological study (abstract will be ineligible for submission to the 2003 Scientific Program) (4) Deadline: November 1, 2002.

pend upon radical new understanding of the molecular basis of ALS. Great advances have been made in this direction and more can be expected in the next 5 years. When effective treatments are found, early diagnosis will become a pressing issue. Wider access to treatment will also become even more important.

Epidemiology and clinical features

What can epidemiology tell us about the cause of ALS [1]? The incidence of amyotrophic lateral sclerosis is about 1–2 per 100,000 population per year. The point prevalence rate has been estimated at about 4 per 100,000 population. The incidence is similar world-wide other than in a few high risk areas such as the island of Guam, parts of the Kii peninsula of Japan, West New Guinea, and possibly Guadeloupe. In these regions the disease is atypical and associated with dementia and parkinsonism. The previously high incidence in these areas is now falling to levels more typical of the rest of the world. The lifetime risk of ALS in most parts of the world is around 1 in 1,000. The mean age of onset for ALS is about 56, and about a decade earlier for familial ALS. A younger onset is generally associated with slower progression. Other than increasing age, the two greatest risk factors for ALS are gender and family history. The male: female ratio is 3:2. This becomes more equal after the menopause because of an over-representation of women with bulbar onset, suggesting a possible hormonal effect. The increased risk bestowed by a positive family history suggests there may be a genetic component to susceptibility to ALS, although shared environmental factors cannot be ruled out. In summary, epidemiological studies have not identified major risk factors other than increasing age, a family history, and male sex. Injury, athleticism, exposure to toxins, and military service (including service in the Gulf War) have not convincingly been shown to increase the risk of developing ALS, although debate continues.

Diagnosis: ALS variants, ALS mimics

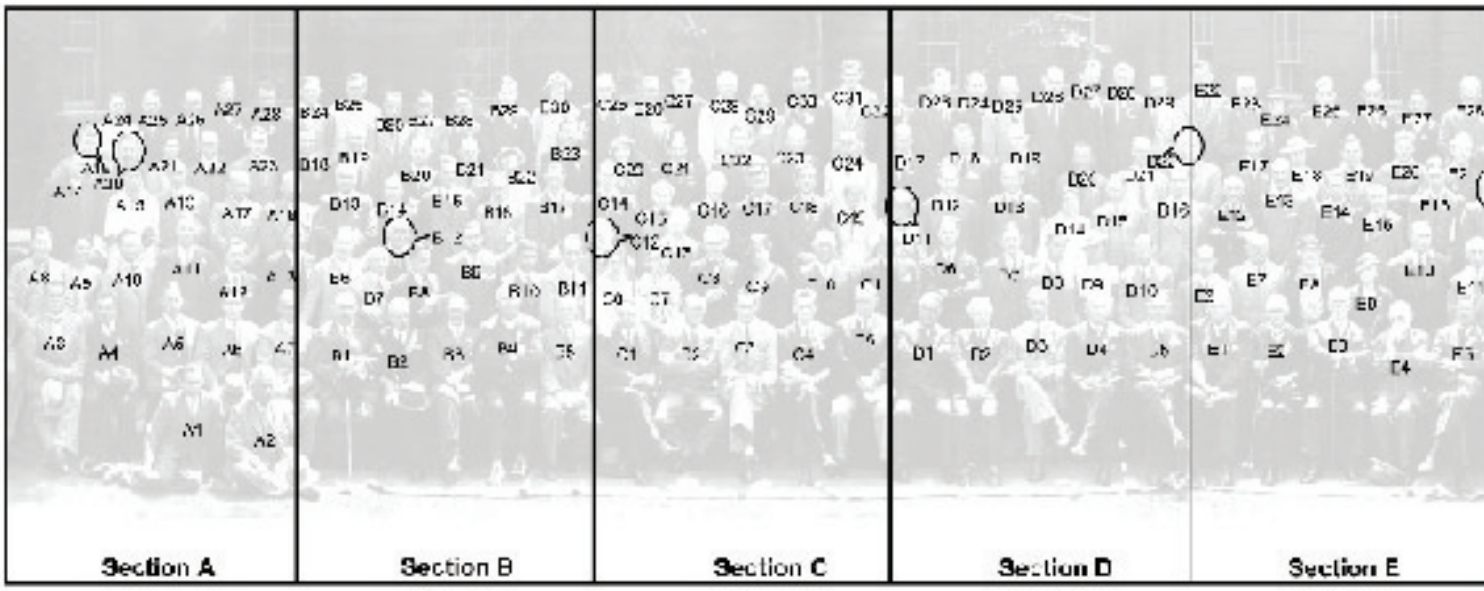
ALS comprises several clinical syndromes in addition to bulbar or limb onset disease, and the prognosis differs significantly in some of these variants. For example, progressive muscular atrophy (PMA) is a lower motor neuron (LMN) variant of ALS, comprising about 10% of all ALS cases. It is associated with better prognosis than typical ALS. Likewise, a characteristic variant of ALS with a male:female ratio of 9:1 and with predominant LMN involvement of the arms has been recognised (the 'flail arm syndrome', the 'man in a barrel syndrome', or progressive amyotrophic brachial diplegia [2]). In Caucasians, this may be associated with slow progression and long survival, but in people of African or Asian descent, it may be less benign. A mainly LMN variant involving the legs (the pseudo-polyneuritic form of ALS) is also associated with better prognosis. The differential diagnosis of ALS (particularly LMN syndromes) includes Kennedy's disease (X-linked bulbar and spinal muscular atrophy), inclusion body myositis, and multi-focal motor neuropathy (MMN), as well as many rarer conditions. MMN often responds well to treatment with IVIG. The presence of conduction block in one or more affected nerves is a helpful guide to the diagnosis of this syndrome, as is the presence of IgM antibodies against ganglioside GM1. MMN is a relatively benign condition that rarely progresses to death, although it can be functionally disabling. Occasionally people with ALS present with or develop fronto-temporal dementia, and neuroimaging and neuropsychological studies support the notion that ALS is a multi-system disorder with predilection for the motor system.

Advances in genetics and pathogenesis

Until recently our understanding of the pathogenesis of ALS was confined to a description of the cellular pathology and using neuro-toxins to mimic those features in animals. Molecular genetics has transformed the field by giving us a concrete answer as to the root cause of ALS in some cases and provided new tools to explore disease mechanisms and discover more effective treatments [3]. Although the majority of ALS is sporadic, ~10% are familial, most commonly being passed down as an autosomal dominant disorder. More than 100 mutations in copper/zinc superoxide dismutase (SOD1) have been detected in ALS cases accounting for ~20% of familial and 3% of apparently sporadic disease. Mice transgenic for mutant SOD1 develop motor neuron degeneration due to a toxic property of the mutant molecule. Two major hypotheses have arisen: that mutations cause (1) aberrant catalysis by permitting novel substrates access to the active site resulting in hydroxyl radicals and/or peroxynitrite, capable of injuring many different cellular components and (2) aberrant aggregation of misfolded SOD1 protein which may be toxic by co-aggregating other essential proteins and/or chaperones or inhibit the ubiquitin-proteasomal degradation pathway (reviewed in Cleveland and Rothstein [4]). The Cu-mediated catalytic hypothesis is supported by the demonstration of increased protein oxidation as evidenced by carbonyl groups and 3-nitrotyrosine in SOD1 transgenic mice and ALS cases but a recent study challenges these findings. Copper is delivered to SOD1 solely by the copper chaperone for SOD1 (CCS). However the crossing of mice expressing mutant SOD1 with mice knocked out for CCS did not affect their survival, strongly implying that toxicity is independent of Cu-mediated catalysis. Thus current evidence points towards protein aggregates playing a key role in pathogenesis and it is interesting to note that skein-like and globular ubiquitinated inclusions in the cell body and proximal axon of motor neurons are a pathological hallmark of ALS. However SOD1 aggregation is unlikely to be essential in the patho-

(cont. on page 10)

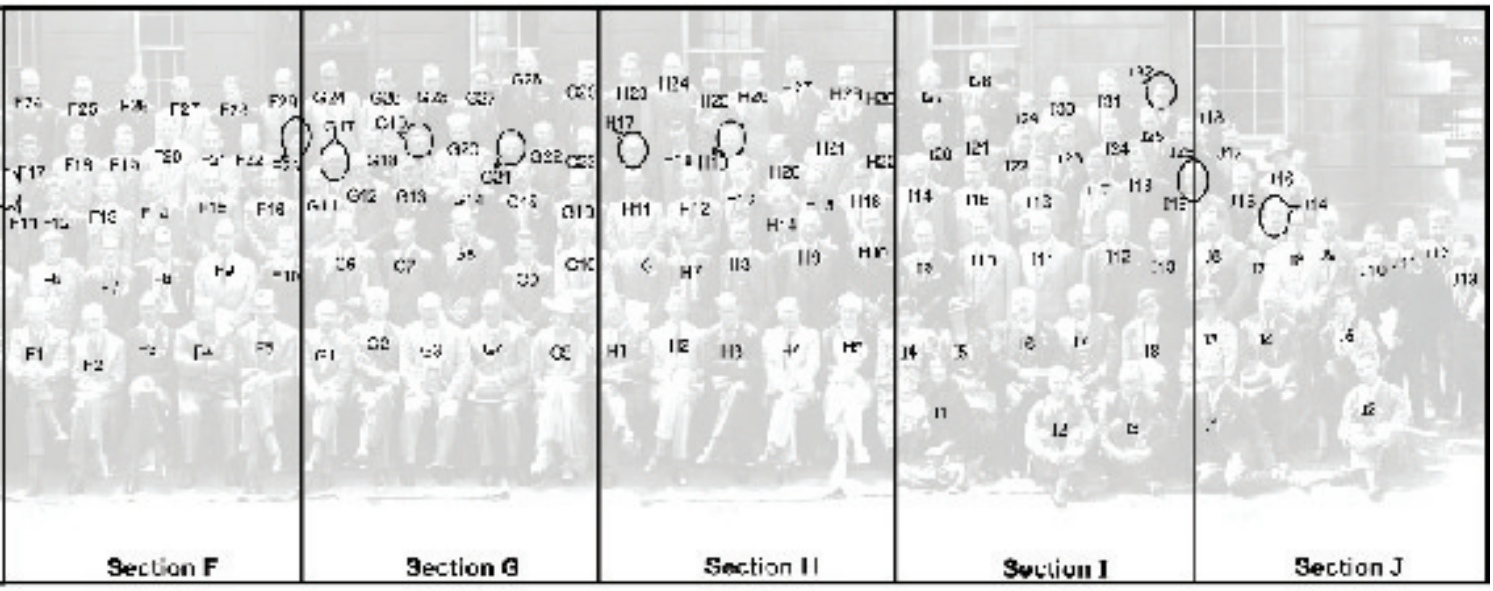
Destination Australia – XVIII World Congress of Neurology Sydney 2005: rural Tasmania.



INTERNATIONAL CONGRESS OF THE NEUROLOG

As part of a project to archive historical photographic material at the Institute of Neurology, London, the Manager of the Institute's Audio Visual Services has scanned a group photograph taken in 1935. This picture shows some 300 people attending the 1935 International Neurological Congress held in London that year. Because it is a panoramic print, it had been stored rolled up in a tube and was beginning to show signs of wear, being damaged each time it was unrolled. The scanning was undertaken using image editing software (Photoshop) to produce a digital file. The opportunity was also taken to correct several large cracks, some marks and missing pieces.

Each person is assigned both a letter and a number and the whole photograph has been subdivided into ten A4 sections. The



GICAL SCIENCES, LONDON, JULY–AUGUST 1935

photograph is being reproduced here in its entirety because the World Federation of Neurology, through its members, has been asked to help identify some of the names of those shown. Some already are known, either definitely or as "probables". But the vast majority are unknown. It is likely that the images will also be added to the Federation's website.

If anyone has suggestions as to the identity of any person or persons attending the 1935 meeting, please e-mail the WFN London office indicating the letter and number of the person in question. If anyone thinks they may be able to help on the basis of an enlarged image of one or more of the ten sections, that too can be arranged.

WINNERS OF THE WFN JUNIOR TRAVELLING FELLOWSHIPS 2002

Pedro I. Calderon	Cuba	AAEM Meeting, Toronto, Canada, October 9th–12th, 2002
Alexander Rousseaux Lafargue	Cuba	AAEM Meeting, Toronto, Canada, October 9th–12th, 2002
Alessandra Starling	Brazil	Xth International Congress on Neuromuscular Diseases, Vancouver, Canada, July 7th–12th, 2002
George Lomidze	Georgia	6th EFNS Congress, Vienna, Austria, October 26th–29th, 2002
Maria Molnar	Hungary	Xth International Congress on Neuromuscular Diseases, Vancouver, Canada, July 7th–12th, 2002
P Sarat Chandra	India	European Neuro-Trauma Congress, Newcastle-upon-Tyne, UK, June 26th–29th, 2002
Rajendra Singh Jain	India	8th International Conference on Alzheimer's Diseases and Related Disorders, Stockholm, Sweden, July 20th–25th, 2002
Leila Akhmadeyeva	Russia	Xth International Congress on Neuromuscular Diseases, Vancouver, Canada, July 7th–12th, 2002
Tiatiana Muravina	Russia	Xth International Congress on Neuromuscular Diseases, Vancouver, Canada, July 7th–12th, 2002
Goknur Haliloglu	Turkey	Xth International Congress on Neuromuscular Diseases, Vancouver, Canada, July 7th–12th, 2002

(cont. from page 7)
genesis of all ALS as most sporadic and familial cases do not have SOD1 immunoreactive inclusions.

A great deal of research has focused on the excitotoxic role of glutamate in ALS. There is evidence of elevated glutamate levels in the cerebrospinal fluid of some ALS cases and decreased levels of glutamate transporter expression in the anterior spinal cord in humans and mutant SOD1 mice. However the evidence that aberrant splicing of EAAT2 mRNA is responsible is not convincing and it is uncertain whether the disturbances of glutamate homeostasis seen cause or merely reflect motor neuron loss. Mutations in the tail domain of the neurofilament heavy chain gene have been detected in 10 ALS patients, 9 of whom were sporadic and it is interesting to note that neurofilamentous accumulation is another common pathological feature in ALS. Genetic linkage studies in familial ALS have identified regions on chromosome, 2, 9, 15 and 18 which may contain pathogenic gene mutations. It seems likely that many genes acting in isolation or in concert may cause ALS but that an environmental trigger may be required to initiate the disease process in a susceptible individual. These factors may exert their effects via a common final pathway that results in the formation of intracellular aggregates in motor neurons and ultimately cell death. Hopefully the identification of other genes and disease specific protein changes will give us a much greater insight into the pathogenesis of ALS.

Advances in treatment and care

The American Academy of Neurology Practice Parameters for ALS represents a significant advance in formulating evidence-based guidelines for the care of people with ALS [5], although in many areas, the evidence base is still weak, and will need to be revised as new evidence is acquired. The cornerstone of care for people with ALS is multi-disciplinary care, with attention to all aspects of the individual's life. Accurate diagnosis following full investigation aimed at excluding treatable causes of weakness is the first step, followed by honest and sympathetic telling of the diagnosis. Broadly defined, palliative care should start from the time of diagnosis, and includes emotional support, treatment of symptoms, and discussion of prognosis and choices for treatment. At some stage, respiratory support, end of life issues and advance directives should be broached, although the timing will vary from person to person.

Riluzole [6] is the only drug that has been shown to prolong survival in ALS. Recent trials of insulin-like growth factor 1 (IGF-1), brain-derived neurotrophic factor (BDNF), and ciliary neurotrophic factor (CNTF) have been negative. Because minocycline, and celecoxib (a cox-2 inhibitor) may delay disease progression in the ALS SOD1 transgenic mouse, trials of these agents in ALS patients are either ongoing or about to start. At present, stem cell therapy remains a theoretical possibility rather than a viable clinical option. Many would regard current attempts to test the therapeutic effects of stem cells in people with ALS as premature. Creatine, vitamin E, coenzyme Q10, and many other complementary medications are used by people with ALS, but there is no evidence yet that any of these alter the outcome of the disease.

Respiratory muscle weakness eventually occurs in all patients with ALS. Unfortunately, the forced vital capacity (FVC) is not a good predictor of respiratory failure or death, and patients who develop symptoms related to respiratory muscle weakness should be assessed for non-invasive ventilation, even if the FVC is above 50%, as patients may develop respiratory failure with an FVC greater than 70% [7]. Ventilatory support in the form of non-invasive ventilation (NIV) with BiPAP has a significant impact on survival [8] and quality of life [9]. Nocturnal NIV via a face mask reverses respiratory failure, and so improves sleep, cognitive function, appetite and well-being. It is our practice to set NIV firmly within the context of palliative care, and to discuss end of life issues before undertaking NIV or other forms of ventilatory support. Tracheostomy ventilation is chosen by very few patients in Europe and North America, but is more com-

monly undertaken in Japan. In our experience, NIV in the context of good palliative care does not lead inevitably to tracheostomy and PAV. The majority of patients do not wish to have PAV, recognising they may well lose the capacity to express choices about continuing with ventilation. A few patients, and perhaps fewer carers, see PAV as a positive option.

Maintenance of good nutrition is also important in preserving well-being. Nutrition should be carefully monitored, even in patients who do not have significant dysphagia. Percutaneous endoscopic or radiologically-inserted gastrostomy (PEG or RIG) should be performed early rather than late. The mortality after these procedures is high if they performed when the FVC is below 50% predicted [10].

Palliative care at the end of life can relieve physical discomfort (including dyspnea) and emotional distress without depriving the individual of awareness and autonomy. Oral morphine and benzodiazepines are often helpful, and can often be used in low dosage for long periods. Psychological support and counselling are important at all stages of the disease, and must extend to carers and family members, who are often at greater risk of depression than the person for whom they are caring. Existential and spiritual aspects of ALS should not be overlooked, but care providers should be cautious about invasion of privacy. Bereavement support for relatives is important. Many people with ALS, and their families, are committed to research and see participation in research as an investment in the future of others, if not their own. The researcher thus has an important part to play in the ALS care team.

In summary, although finding a cure of ALS poses formidable challenges, the prospects for unravelling the molecular mechanisms leading to motor neuron degeneration in ALS are bright. A breakthrough in understanding the cause of ALS should enable us to design rational new treatments to halt disease progression, and stem cell therapy may, in time, enable us to repair the damaged motor system. In the meantime, much has been achieved, and much can be done to improve the quality of life of people affected by ALS.

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WORLD FEDERATION FOR NEURO-REHABILITATION: REPORT

World Federation for Neuro-rehabilitation, a new organization and a promising field in neurology. A new organization was formed at the recent 3rd World Congress in Neurological Rehabilitation in Venice. Since the 1st World Congress that was held in Newcastle upon Tyne, UK, in 1996, there has been an informal grouping of individuals with an interest in neurological rehabilitation, which was known as the World Forum for Neurological Rehabilitation. Interest in this group has grown steadily. There were nearly 1,400 attendees for the Venice meeting from 55 different countries. It was time to formalize a global organization for clinicians with an interest in the subject of Neuro-rehabilitation. Thus, the World Federation for Neuro-rehabilitation (WFNR) was born. The aim of the organization is to promote the cause of neurological rehabilitation on a world-wide basis, mainly through organizing a congress every 3 years and continuing to produce a 6-monthly newsletter (WFNR Update).Other opportunities for education, interchange, courses, meetings and research collaboration as the organization matures and develops are a future aim.

Professor Michael Barnes from Newcastle upon Tyne was elected as the first President of the WFNR. Suzanne Phillips from Bath, UK, was elected as Secretary and Editor of the newsletter and Klaus von Wild from Germany agreed to be Treasurer. These three officers are supported by a Management Committee that consists of the Editor of the *Journal of Neuro-rehabilitation and Neural Repair*, Presidents of existing national societies for neurological rehabilitation, the chairperson of the Venice congress and the chairperson of the next world congress. The Vice-Presidents to represent the different continents were elected: Anwar Etribi (Africa), Pradit Prateheparanich (Asia), Ben Marosszeky (Australia), Jorge Hernandez (Central America and Caribbean), Karl-Heinz Mauritz (Europe), David Good (North America) and Lucia Willadino Braga (South America). Six General Members of the WFNR also join the Management Committee: Franz Gerstenbrand (Austria), Maya Thomas (India), Nils Erik Gilhus (Norway), Amanda McLeod (UK), Derick Wade (UK) and Bruce Dobkin (USA). This Management Committee is supported by a further 25 members on the WFNR Council that will meet at every congress and determine the

future direction and strategy of the organization.

Membership is free and to join the organization and receive the WFNR Update simply requires an e-mail or note to the President at the address below. Anyone with an interest in neurological rehabilitation who wishes to participate and be involved in the new organization would be welcome to contact Professor Barnes in Newcastle. The address is: Professor M. P. Barnes, Hunters Moor Regional Neuro-rehabilitation Centre, Hunters Road, Newcastle upon Tyne NE2 4NR, UK. Tel/fax: +44 191 219 5690; e-mail: m.p.barnes@btinternet.com. Franz Gerstenbrand, Ludwig Boltzmann Institute for Restorative Neurology, Neurologisches Zentrum, Otto Wagner Spital, Baumgartner Höhe 1, A-1140 Vienna, Austria, 2002 EFNS 557, European Journal of Neurology 2002, 9: 557.

THE COCHRANE NEUROLOGICAL NETWORK

Planning for Evidence-based Prevention and Treatment of Neurological Disease

There is no doubt that neurology as a medical discipline is expanding in many neuroscience and clinical practice areas. Now more than ever, it is important that our therapeutic decisions be based on clinical evidence, allowing us to respond with effective therapies and prophylactics. The time has come when intervention related to prevention, acute treatment, management and care organization must be implemented and evaluated in a scientific way.

New methodologies such as randomized controlled clinical trials and systematic reviews (or meta-analysis) should be used more frequently to improve evidence-based approaches to evaluating the effectiveness of healthcare interventions. These new methodologies are especially important in clinical practice. There are many treatment options available to us, and we must ensure that we make the right therapeutic decisions in order to give our patients a measure of the value of our interventions. Without proven parameters for choosing the most appropriate treatment options, we cannot adequately serve the interests of our patients.

With this in mind, a group of neurologists, epidemiologically oriented, founded the Cochrane Neurological Network in 1998. The aim of this organization remains focused on helping people to produce, understand and use in practice the results of neurological clinical trials. Since its inception, the Cochrane Neurological Network has sponsored more than 20 meetings and workshops, authored 16 published articles, contributed to four Cochrane reviews, given 12 oral presentations and published a twice-yearly newsletter. Based in Milan, Italy, Department of Clinical Neurology, the Cochrane Neurological Network recently established an advisory board comprised of the following members: Livia Candelise (Italy), neurologist and Advisory Board co-ordinator; Alessandro Liberati (Italy), epidemiologist and director of the Italian Cochrane Centre; Richard Hughes (UK), co-ordinating editor of the Cochrane Neuromuscular Group; Charles Warlow (UK), former co-ordinating editor of the Cochrane Stroke Group; Rodrigo Salinas (Chile), epidemiologist with a neurological background and reviewer of various Cochrane Collaborative Review Groups; Bernard Uitdehaag (Netherlands), editor of the Multiple Sclerosis Group.

The Cochrane Neurological Network is a subset of the Cochrane Collaboration, an international not-for-profit organization that includes more than 5,000 people around the world. It aims to help people make well informed decisions about healthcare by bringing together the available evidence on the effects of interventions for a wide variety of areas of health to provide up-to-date, reliable summaries.

The core work of the Cochrane Collaboration is done by Collaborative Review Groups. Their function is to prepare and maintain systematic reviews on related topics. They provide essential support in preparing systematic reviews and peer reviews for the Cochrane Database of Systematic Reviews, contained in electronic format within the Cochrane Library. There are now more than 9,000 article references related to neurological clinical trials and 58 Cochrane reviews available from the Cochrane Library. They have been produced by the Cochrane Neurological Network's 10 Collaborative Review Groups:

YNT-SCHERING FELLOWSHIP IN CLINICAL TRAINING IN MULTIPLE SCLEROSIS

The YNT-Schering fellowship aims to promote high quality international clinical training in neurology. The fellowship focuses on advanced training in the diagnosis and management of patients with multiple sclerosis. The YNT-Schering fellowship is valued at 20,000 per candidate over 6 months and two fellowships will be available for 2003. Candidates should choose a specialist centre in another country with expertise in multiple sclerosis and arrange educational activities which would not otherwise be available to them. These may include clinical neurology and sub-specialties. The host centre should have up-to-date brain imaging, laboratory and electrophysiology facilities to enable the candidate to acquire the skills needed for establishing the diagnosis of MS according to the new McDonald criteria (Ann Neurol 2001;50:121-127). A letter of intent from the proposed host centre should be included with the application.

Applicants should be aged 35 years or less, be affiliated to a neurological department as a neurology trainee with at least 2 years experience. They should be well motivated, intend to subspecialise in multiple sclerosis and have a good professional curriculum vitae. The home centre should provide a letter stating how the experience acquired by the trainee would be implemented after their return. The period abroad must be recognised as counting towards official training. Activities aiming to establish future collaborations with the host centre will be encouraged.

The full application, including the candidate's curriculum vitae, a description of the content and feasibility of the clinical rotation in the named host institution (maximum 1 page), and the supporting letters from the host / home centres mentioned above should be emailed to Axel Petzold at a.petzold@ucl.ac.uk by 15 December 2002.

More information can be found on the YNT web site: www.ynt-europe.com

Back, Dementia and Cognitive Improvement, Epilepsy, Incontinence, Injuries, Movement Disorders, Multiple Sclerosis, Neuromuscular, Pain, Palliative and Supportive Care, and Stroke.

Most neurologists can hardly relate to the seemingly overwhelming amount of neurological information at our disposal. The Cochrane Neurological Network helps to gather relevant information and present it in a concise manner. Anyone looking for an unbiased summary of data on neurological intervention is invited to take advantage of the resources provided by the Cochrane Neurological Network. The organization keeps neurologists informed about systematic reviews of neurological interventions and works to recruit participation from growing numbers of neurologists in the field. The Cochrane Neurological Network is continually looking for contributors to help address new questions about problems in clinical practice or to participate in the production of systematic reviews in a specific field of interest. As it strives to heighten its international presence, the Cochrane Neurological Network is working much more closely with the WFN and welcomes feedback from its members. For information or to become involved with the valuable work being done by your colleagues in the neurology field, contact Professor Livia Candelise at: cochrane.neuronet@unimi.it.

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RESEARCH ADVANCES IN DEMENTIA

The Alzheimer's Association's 8th International Conference on Alzheimer's Disease and Related Disorders in Stockholm, Sweden, was a premier forum for presenting critical advances in dementia research. Stories highlighting some of this pivotal research can be found online at Alzheimer Research Forum.

Titles and links to conference news:

Pictures at an Exhibition www.alzforum.org/new/detail.asp?id=635
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Clusterin (or Beware the Evil Chaperone!) www.alzforum.org/new/detail.asp?id=612
Chlamydia triggers amyloid plaques in mice www.alzforum.org/new/detail.asp?id=611
Visualizing Amyloid Biggest Draw at Imaging Symposium in Stockholm

BOOK REVIEWS

Subcortical Stroke

Editors:	Geoffrey Donnan, B O Norrving, John Bamford and Julien Bogousslavsky
ISBN:	19263157 8 (Hbk)
No. of Pages:	456
Price:	£79.50
Publication Date:	2002
Publishers:	Oxford University Press

This is the Second Edition of this book which is updated from the First Edition published in 1995 under the title of Lacunar and other Subcortical Infarctions. It is a contribution of three dozen authors and has 26 chapters divided in VII parts. Part I is on history and classification particularly of lacunes. Pathology, neurochemistry, risk factors and genetic aspects are dealt in Part II & III. The investigations of subcortical stroke are deliberated in Part IV. Eleven chapters dealing with controversies and clinical syndromes such as lacunes, lacunar syndromes, lacunar TIAS, basal ganglion infarcts and prognosis of patients with lacunar infarction are discussed in Part V. In Parts VI and VII, the therapy and subcortical haemorrhages are discussed in detail. This book is indeed comprehensive, illustrative and very informative and the authors have discussed meticulously about subcortical infarctions and haemorrhages. The book is very useful for stroke units neurologists and general physicians.

Editor-in-Chief

Sleep Medicine

Editor:	Teofilo Lee-Chiong, Jr
ISBN:	1-56053-430-3
No. of pages:	368
Price:	$70.00
Publication Date:	February 2002
Publisher:	Hanley & Belfus

There have already been several monographs on this relatively new sub-speciality of neurology. This volume differs in that its three co-editors consist of two psychiatrists and a specialist in pulmonary and critical care medicine. The first section of 11 chapters is a thorough review of the physiology of normal sleep and the second (3 chapters) on the variation in children, women and the elderly. The succeeding sections deal with insomnia, day time sleepiness, parasomnias and disorders of circadian rhythms, eg jet-lag. All medical disorders that interfere with sleep are then reviewed, the most important for the present readership being those with neurological disorders. This section has chapters on the dementias, parkinsonian syndromes and epilepsy. The final section covers all the diagnostic techniques that maybe needed in the investigation of sleep disorders.

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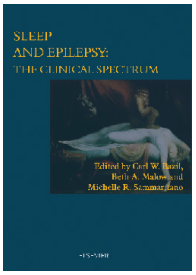

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American Neurological Association
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6th Congress of the European Federation of Neurological Societies (EFNS)
26–29 October 2002, Vienna, Austria

Society for Neuroscience
3–7 November 2002, Orlando, FL, USA

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1–3 December 2002, New York, NY, USA

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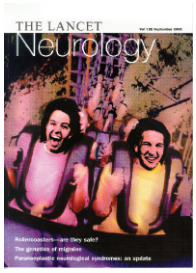

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