

AES News

AMERICAN EPILEPSY SOCIETY

Vol. 15, No. 3

Fall 2006



AES Annual Meeting Takes On An International *Flavour*

The 1st North American Regional Epilepsy Congress is only a few short weeks away! This year's Congress runs December 1-5, 2006 in sunny San Diego. As usual, the meeting will present an extensive array of epilepsy-related topics, endless opportunities for networking and an exhibit hall full of the latest products and services.

Several changes have been made to this year's meeting schedule. Program changes are as follows:

- **Saturday, December 2** – Investigators' Workshop and Annual Course will move from Sunday to Saturday and will continue to run concurrently. The Annual Course will begin at 8:00 a.m. and the Investigators' Workshop will begin at 8:30 a.m. The two Evening Symposia will begin at 5:00 p.m. and end at 7:30 p.m. This will allow meeting attendees an evening on their own to enjoy dinner and network with colleagues.
- **Sunday, December 3** – The Presidential Symposium will begin at 9:00 a.m. The Merritt-Putnam Symposium will begin at 1:30 p.m. There will be a second Professionals in Epilepsy Care program beginning at 2:00 p.m. and a **new** North American Session beginning at 5:15 p.m. This new session will address specific aspects of epilepsy care and education in other countries. A reception honoring all

Past Presidents will be held in the evening beginning at 6:00 p.m.

- **Monday, December 4** – The AET Symposium will be held at 9:00 a.m. The Lennox Lecture will begin at 2:30 p.m. The Platform Sessions will be held at 3:45 p.m. and will take place as two concurrent "platform highlights."
- **Tuesday, December 5** – The Plenary Session will begin at 8:00 a.m. and the Pediatric Highlights Session at 10:30 a.m.
- **Special Interest Groups** will be held on Friday 2:00-3:30 p.m., on Saturday 1:00-2:30 p.m. and 3:00-4:30 p.m. and on Tuesday 12:15-1:45 p.m.
- **Poster Sessions** will run all day on Sunday and Monday beginning at 7:30 a.m. with authors present in the morning and afternoon.
- **Exhibit Hall** will be open all day on Sunday and Monday beginning at 7:30 a.m.

In addition to the time and date changes, there is a significant change to the annual *Epilepsia* Abstract Supplement. The Supplement will not be provided in a printed format as in the past, but will arrive in your mailboxes as a CD-ROM. The CD contains the abstracts, pediatric highlights, platform highlights, investigator workshops with the dates and times of presentations. It will be

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PRESIDENT'S MESSAGE

My year as president of the American Epilepsy Society has been a remarkable and exciting journey. I often reflect on how our Society has grown in size and depth since I started attending the meeting in 1979. The late Fritz Dreifuss, my mentor at the University of Virginia, encouraged me to join the AES when I was a neurology resident. My first memories of the AES remain distinct (well, sort of) in my hippocampus. The blending of basic neuroscience with clinical care was invigorating and enthralling to me. It became very clear that this was a meeting that would meet my educational needs. The annual meetings of the last 25 years have lived up to my expectations. While we have grown enormously, the AES continues to provide our members with outstanding educational opportunities in a friendly and supportive environment.

One of the great strengths of our Society is the diversity of our members. Nurses, neuropsychologists, neurosurgeons, adult

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AES News



AES News is published three times a year by the American Epilepsy Society, American Branch, International League Against Epilepsy.

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Editorial Deadlines

Winter 2007 – February 5, 2007

Membership consists of clinicians, scientists investigating basic and clinical aspects of epilepsy, and other professionals interested in seizure disorders. Members represent both pediatric and adult aspects of epilepsy.

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President's Message

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neurologists, pediatric neurologists, and basic scientists all contribute to our society. By welcoming all professionals interested in epilepsy, our society has acquired great depth and expertise. Indeed, our annual meeting is widely considered to be the premiere epilepsy meeting worldwide.

This year has been a great experience for me and I have enjoyed serving as your President. We undertook a great deal this year, with one of the biggest projects being our 1st Mid-Year Meeting, which was held in Oak Brook, IL this past June. The conference was geared toward addressing the needs of healthcare practitioners who deal with epilepsy in their clinical practice. We feel the meeting was a success and I must recognize Steven Schachter and his Planning Committee, who did a great job in designing a program that was informative and effective and will surely impact those who attended and those they treat.

Although my year as President is almost over, I am pleased to see that my efforts will continue, specifically in the form of the Advocacy Committee, which is co-chaired by Drs. David Treiman and Frances Jensen. The committee will assist foundations by identifying volunteers (clinicians and scientists) who can provide expert guidance to their advocacy efforts and to develop long-term strategies in using the resources and expertise of AES in advocating for patient services and epilepsy research. I am very proud that this has come to fruition and look forward to seeing it grow.

While we treasure our history, our leadership looks to the future. I have been impressed with the dedication of our Board of Directors, our Committee Chairs and the many AES members who volunteer their time to help AES reach their goals. Our organization was handed to me in great shape by the venerable Joan Austin, and I will be handing the proverbial torch to John Swann, who was a key member of our board this year and will be an even bigger asset to our organization next year.

The American Epilepsy Society is geared toward the future, but we will never forget those who have paved the way for our success. The traditions and rich history of our organization are embedded in each of us and we still honor the names of pioneers like Penry or Lennox, among many others, whose contributions to the epilepsy community still impact epilepsy treatment. I look around at our membership and know that many of these names will eventually be up there among our greatest leaders.

This has been another great year for our organization and I want to thank you for allowing me to serve as your president. I look forward to seeing you all at our 1st North American Regional Epilepsy Congress in December!

Gregory L. Holmes, M.D.

Nominations for the Michael Prize 2005/2006

For the best contribution to scientific and clinical research which further promote development in epileptology, the Michael Prize is awarded biennially and is designed to attract younger scientists (under 45 years of age). The prize money is 15,000 Euros.

Publications that have appeared in **2005/2006** or papers of the same period not yet published will be considered. **Language:** English or German. **Deadline:** Articles and papers, together with a curriculum vitae, should be submitted in triplicate to STIFTUNG MICHAEL until **December 31, 2006**.

For details, visit www.ilae.org.

1st North American Regional Epilepsy Congress

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searchable by author/institution, title, date/time/session, categories and free text.

In addition to the abstracts on CD, AES has also made them available on the Society's Web site at <http://www.aesnet.org/Visitors/AnnualMeeting/Abstractsnew/index.cfm>. The online abstract database is fully searchable and can be printed or saved to your computer.

AES continues to receive high marks on the Annual Meeting. The staff and volunteers use feedback gained at the meetings to provide attendees with a positive and effective experience. More information is available at <http://www.aesnet.org/Visitors/AnnualMeeting/>.

Resources in Epilepsy Research

www.epilepsyresearchresource.org

American Epilepsy Society CURE Epilepsy Foundation Tuberous Sclerosis Alliance
The Epilepsy Therapy Development Project FACES Milken Family Foundation NINDS PACE

GOT FUNDING?

Resources in Epilepsy Research matches researchers with the proper funding opportunities. This online database is a comprehensive listing of all available funding through these organizations with instructions on how to apply for funding consideration as well as links to more information.

In addition to matching researchers with funding, this site keeps an inventory of all currently-funded research in order to encourage project collaboration and ensure that there is not duplication in research.

Log on now to learn more about funding for your project!

HOME	ABOUT	FUNDING	CURRENT RESEARCH	
Funding Opportunities Login				
Search				
List All				
Upcoming Funding Opportunities:				
Name	Organization	Amount	Duration	Deadline
Early Career Physician Scientist Award Program	American Epilepsy Society	\$50,000.00	1	09/15/06
Research Grant program	PACE	\$50,000.00	1	09/15/06
Research and Training Fellowships for Clinicians	Epilepsy Foundation	\$50,000.00	1	10/13/06
Research & Training Workshops	American Epilepsy Society	\$10,000.00	1	10/14/2006
Prevention of Epilepsy after Traumatic Brain Injury	Cure	\$150,000.00	3	10/31/06
See all funding opportunities				

Presented by the following organizations:

American Epilepsy Society
Citizens United for Research in Epilepsy
Epilepsy Foundation
Epilepsy Therapy Development Project
FACES
Milken Family Foundation
National Institute for Neurological Disorders and Stroke
Parents Against Childhood Epilepsy
Tuberous Sclerosis Alliance

www.epilepsyresearchresource.org

The Potential Perils of Switching Formulations of AEDs

By Sandy Finucane, Vice President Legal & Government Affairs – Epilepsy Foundation

The Epilepsy Foundation, on the advice of its professional advisory board, has been opposed to the mandatory substitution of medications for epilepsy from brand to generic, between different generics or different formulations of a product, unless the physician and the patient have agreed in advance to the change. This position was first adopted in the mid-1980s, and has been reaffirmed by the Foundation continuously since then.

Many people with epilepsy report regularly to the Epilepsy Foundation that they have experienced breakthrough seizures, after long periods of seizure control, when a formulation of their customary medication was changed. This might occur when a brand name product goes off-patent and generic versions become available, or when a new version of a product is developed; or when different manufacturers produce the same therapeutically equivalent drug, and the pharmacist changes manufacturers used to obtain that product. Specialists in epilepsy acknowledge that their patients have had this experience; many will not switch some of their patients from brand to generic because of their clinical experience that, for this patient, switching would risk seizures.

Obviously, seizures have the potential to be life-threatening and can endanger the individual and others, particularly if seizures occur without warning while the individual is engaged in the various activities of daily living. Therefore, risking the occurrence of seizures by switching products without the guidance of the individual's physician, when it is known that breakthrough seizures could occur, is a matter of both public and individual safety.

The Epilepsy Foundation is not and has never been opposed to generic medications. Cost of medications is a very significant issue for people with epilepsy, and the Foundation welcomes generic versions of medicine for the opportunity to lower overall costs for individuals and for society. But the cost of medications should not be viewed in isolation from overall medical costs, or the costs to society of supporting people who cannot work or drive or get insurance because of seizures. The person who has a breakthrough seizure, or many breakthrough seizures, incurs significant expenses (ambulance, emergency room, and doctor visits) that far outweigh the monthly expense of keeping that individual on the prescribed medication. If the individual injures himself or herself, or another person, because the

seizure happens while driving, or if the individual loses employment because of the breakthrough seizures, society as a whole bears a considerable cost as well.

Unfortunately, the data to support the Foundation's position is sparse, although a spate of recent studies in the United States and Europe appear to document that breakthrough seizures from switching from brand to generic formulations of the same product, or among different manufacturer's formulations of the same product, is a real concern. In the past, studies have documented that the FDA's acceptable therapeutic range for generic versions of drugs may be too broad for antiepileptic medications, and the FDA has recognized that at least some epilepsy products have a "narrow therapeutic index," meaning that the range of therapeutic equivalence is smaller for these products than for others.

Some state legislatures have restricted the substitution of narrow therapeutic index drugs for epilepsy because of the risk that these products were not actually completely bioequivalent or bioavailable. More recently, when the Epilepsy Foundation, in response to repeated consumer requests and complaints, brought the issue to the

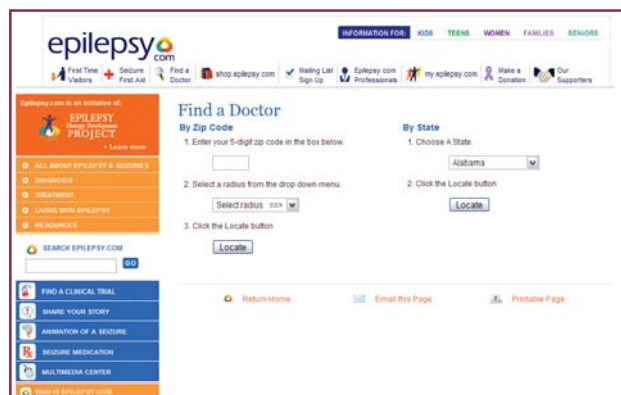
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AES Teams with EF, ETDP, Epilepsy.com on "Find A Doctor" Database

The American Epilepsy Society has launched a searchable online "Find A Doctor" database that is available on the Web sites of the Epilepsy Foundation and Epilepsy.com

This resource answers one of the most frequent questions that all three organizations receive: Can you refer me to an expert?

While none of these organizations offers an actual referral service, AES, EF and Epilepsy.com have developed this online directory to help patients and families find physicians who specialize in epilepsy care. The site's programming allows constituents to search by location, specialty and name, and will also provide a travel radius based on zip code. Physician names appearing on the Web site are exclusively AES members and are added on an opt-in basis. This online database is available through the Epilepsy Foundation site at www.epilepsyfoundation.org/drsearch.cfm or click Find A Doctor on the Epilepsy.com home page.



AES members wishing to be part of this database can log onto the AES Web site and select "Show my info on the Find a Doctor geographical search page" on their profile page.

NINDS REPORT

Save the Date: Translating Discoveries into Therapies

On March 29-30, 2007, the NINDS, in collaboration with the AES and other voluntary and governmental organizations*, is organizing a two-day meeting, "Curing Epilepsy 2007: Targets and Technologies for New Therapies," on the NIH campus in Bethesda, MD. This is the sequel to the 2000 White House-initiated conference, a turning point in epilepsy research that defined, for the first time, the concept of cure as "preventing epilepsy in those at risk and no seizures/no side effects for those who have the disorder."

We anticipate that this upcoming conference will also be a success and will help identify future directions for epilepsy research. The theme will focus on translational research, interpreted broadly to mean the transfer of basic, preclinical and clinical research observations into clinical practice. John Swann and Dennis Spencer (presidents of AES in 2007 and 2008, respectively) are co-chairs of the event. National Institutes of Health Director Elias Zerhouni and Story Landis, director of NINDS, will speak, as will clinical and basic investigators within and outside of the field. Dr. Gerald Fischbach, NINDS director at the first conference, will give the keynote address.

The meeting is organized as follows:

March 28, 2007

- Junior investigator platform/poster session (open to junior investigators only). *Abstract deadline: November 17, 2006.* More information will be available after September 2006.

March 29, 2007

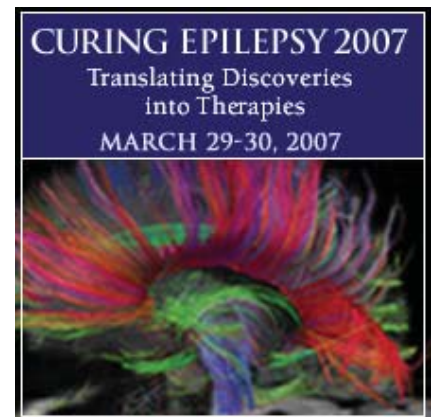
- Welcome: Story Landis, director, NINDS
- Introduction/keynote address: Gerald Fischbach, former director, NINDS
- Session 1: Translating discoveries of epilepsy genes into cures
- Roundtable: Medical Treatment of Cortical Dysplasia
- Address by Elias Zerhouni, director, NIH
- Session 2: Translating discoveries of epileptogenic mechanisms into cures

March 30, 2007

- Introduction to Day 2:
- Session 3: Beyond Seizures: Cognitive and Psychological Issues in Epilepsy
- Lunch discussion on potential outcomes and benchmarks
- Session 4: Emerging molecular and cellular technologies and therapies of the future.

Each session will be introduced by a person with epilepsy or a family member who will describe the impact of living with the disorder. There will be a separate program Wednesday evening (March 28) specifically for junior investigators (assistant professor or below), which will include several talks and a poster session.

Once again, this is a community effort and we thank our partners for their enthusiasm and support. We hope you will join us next March. Additional information can be found at http://www.ninds.nih.gov/funding/research/epilepsyweb/curing_epilepsy_2007.htm.



*American Epilepsy Society (AES); Centers for Disease Control and Prevention (CDCP); Citizens United for Research in Epilepsy (CURE); Epilepsy Foundation (EF); Epilepsy Therapy Development Project; Finding a Cure for Epilepsy and Seizures (FACES); International League Against Epilepsy (ILAE); Milken Family Foundation; Parents Against Childhood Epilepsy, Inc. (PACE); National Association of Epilepsy Centers (NAEC); Tuberous Sclerosis Alliance (TSA)

First Gordon Research Conference on Epilepsy

A groundbreaking scientific meeting on Basic Mechanisms of Epilepsy sponsored by the Gordon Research Conference was held August 6-10 at Colby College, Waterville, Maine and supported by the American Epilepsy Society, NINDS, and the CURE Foundation. The Gordon Conference is a prestigious private conference series that fosters communication of recent cutting edge experimental discoveries and intense discussion across disciplinary and national boundaries.

More than 150 international junior and senior scientists participated in five, day-long sessions where novel ideas, fledgling theories, and early experimental results were discussed off the record, allowing critical feedback and encouragement of promising research in genetics, neurophysiology, imaging and modeling of epileptic networks. The pioneering conference was organized by AES members Kevin Staley and Ivan Soltesz in response to an AES-initiated proposal to strengthen basic science training in epilepsy. The next conference is planned for 2008.



Postgraduate Training Directory Available On AES Web Site

The American Epilepsy Society has launched an interactive postgraduate training directory available on the AES Web site, www.aesnet.org.

The directory provides a comprehensive list of available positions around the nation. This database provides site visitors with the opportunity to sort by desired parameters, including location, institution and type of program, among others.

Submissions to the directory will carry comprehensive information about available positions. The directory aims to accelerate the process of matching those seeking training to available positions.

The directory will be exclusively populated through online submission forms. AES members receive immediate posting when logged onto the Web site. Posting to the site is also free of charge for AES members.

Find A Postgraduate Training Center

The American Epilepsy Society's Postgraduate Training Center is a comprehensive listing of postgraduate training opportunities in the fields related to epilepsy. Positions are listed as submitted. Please contact the appropriate person directly for more information. The AES Executive Office has no additional information on these positions. Click on a job to view more information.



Subscribe to the AES Postgraduate Training Directory [RSS Feed](#)

◆ Post a Center

Program	Institution	Training Director	City	State
Basic Neuroscience	University of California, Irvine	Tallie Z. Baram, MD, PhD	Irvine	CA
Basic Neuroscience	University of California, Irvine	Baram	Irvine, CA	CA
Basic Neuroscience	Baylor College of Medicine	Swann	Houston	TX
Basic Neuroscience	David Geffen School of Medicine at UCLA	Sankar	Los Angeles	CA
Basic Neuroscience	Helen Hayes Hosp. and Columbia Univ.	Scharfman	West Haverstraw	NY
Clinical Neurophysiology	University of Virginia	Fountain	Charlottesville	VA
Clinical Neurophysiology	University of California, San Francisco	Garcia	San Francisco	CA
Clinical Neurophysiology	University of Rochester Medical Center	Logigian	Rochester	NY
Clinical Neurophysiology	Baylor College of Medicine	Mizrahi	Houston	TX
Clinical Neurophysiology	University of Florida	Valenstein	Gainesville	FL
Clinical Neurophysiology	Temple University Hospital	Jacobson	Philadelphia	PA
Clinical Neurophysiology	University of Michigan	Selwa	Ann Arbor	MI
Clinical Neurophysiology	Georgetown University Hospital	Motamedi	Washington	WA
Clinical Neurophysiology	Georgetown University Hospital	Motamedi	Washington	MD
Clinical Neurophysiology	University of California, San Diego	Iragui	La Jolla	CA
Clinical Neurophysiology	University of California Irvine	Grant	Orange	CA

FDA Approves New Epilepsy Indication for Lamictal®

The Food and Drug Administration has approved a new use of the anti-seizure medicine Lamictal® (lamotrigine) tablets for the treatment of one of the most serious forms of epilepsy — Primary Generalized Tonic-Clonic (PGTC) seizures, also known as grand mal seizures. With this new indication, Lamictal can now be used as add-on therapy to treat PGTC seizures in children age two and older as well as adults.

FDA approval of Lamictal as add-on therapy in patients with PGTC seizures was based on a multicenter, placebo-controlled trial in pediatric (age 2) and adult patients (n=117). Patients with partial seizures were excluded from this rigorous assessment of Lamictal. In the study, Lamictal was given to patients whose seizures were not well controlled, even while taking one or two other anti-seizure medications.

In this study, Lamictal was highly effective in reducing the frequency of PGTC seizures. Over the entire treatment period, Lamictal significantly reduced

PGTC seizures by 66% compared to 34% for the placebo group (p=0.006). Similar effects were seen during the titration and maintenance phases of the study. Significantly more patients receiving Lamictal as maintenance therapy experienced at least a 50% reduction compared to placebo (72% versus 49%, p<0.05). Efficacy was similar across age groups.

Overall, Lamictal was associated with a favorable tolerability profile. The most common drug-related side effects observed in this clinical trial were dizziness (5% Lamictal, 2% placebo), drowsiness (5% Lamictal, 2% placebo), and nausea (5% Lamictal, 3% placebo). This study supports other findings establishing the efficacy and tolerability of Lamictal for a broad range of seizure types and patient ages.



IN MEMORIAM

On Sunday, August 27, one of our most beloved members, A. James Rowan, lost his battle with cancer. In the more than 40 years he worked in epilepsy, he touched the hearts of a very large number of people and was a leader in both epilepsy and electroencephalography. When his name is mentioned one can not help but recall his impish grin and ever-present smile. He was always willing to help friends and colleagues in so many different ways. He was a gentleman's gentleman, an extraordinary writer and a passionate teacher.

His wife Rita has requested that in lieu of flowers, donations be made to a fund being set up in Jim's name. The fund will support visiting professorships in epilepsy/EEG, which was Jim's passion.

Rita Rowan can be contacted at 415 East 51st Street, Apartment 11BB, New York City, NY 10022.

AMERICAN EPILEPSY SOCIETY

EVERYONE IS INVITED!

Join in celebration of 60 years of sharing ideas

Mingle with colleagues and past AES presidents

View memorabilia from 60 years of AES Annual Meetings

Enjoy music provided by our very own AES members: The Dysrhythmics

Sunday, December 3

6:00 - 7:30pm

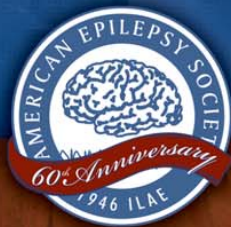
Marriott Marina Ballroom

Pre-registration suggested

Past Presidents Reception

Celebrating the 60th Anniversary of AES Annual Meetings

In honor of the 60th Anniversary there is a \$60 suggested donation to the AES Research Fund. Help support research in our field by participating in this event.



SIGnals

SIGnals provides ongoing information on the areas of focus and the activities of AES Special Interest Groups (SIGs). For more information on current SIGs or guidelines for creating a SIG, visit the AES Web site at www.aesnet.org.

Nursing Focus Group

Linda Goldenberg, M.S.N., RN, NP-C, APRN-BC and Susan O. Smith, NP

This SIG, scheduled on Saturday at 3:00 p.m. is for all RNs & APRNs who are involved in epilepsy. The topic is VNS Update: Epilepsy Monitoring Units; Networking on Clinical Issues. Interesting and challenging case studies will be presented and audience participation will be encouraged. Also the Vagus Nerve Stimulator's treatment of seizures and depression will be discussed. In addition, there will be time to meet and exchange ideas with your international colleagues.

Participatory Roundtable on Basic Mechanisms of Epilepsy: Animal Models of Febrile Seizures and Febrile Status Epilepticus: What Do They Tell Us About Epilepsy?

Claude G. Wasterlain, M.D.

The last few years have seen rapid progress in the study of animal models of febrile seizures. This roundtable will review some of the most recent advances and clinical lessons we have learned from these experimental data. This a participatory session, and anyone with recent data can bring one slide and have up to 5 minutes to present their viewpoint. Please make sure you contact the chair, Raman Sankar (rsankar@ucla.edu), ahead of time to ensure a smooth integration of projections. The designated presenters will discuss some of the lessons learned from the Baram model and will present new data suggesting that both lipopolysaccharide-induced inflammation and hyperthermia are independent risk factors that worsen the outcome of febrile seizures.

Frontal Lobe Epilepsy EEG Onset Patterns in Frontal Lobe Epilepsy – What Do They Tell Us?

Barbara E Swartz, M.D., Ph.D.

Last year we looked at high tech solutions to localization with EEG. Unfortunately, most of us are still dealing with visual analyses of surface and intracranial EEG. How reliable is it and what patterns emerge with the most validity? This SIG will explore these

questions with audience participation. Prakash Kotogal will demonstrate surface and intracranial FLE patterns in children. The organizer, Barbara Swartz, will give some background on surface EEG studies in adults and show one approach to analysis. Patrick Chauvel has been invited to share his extensive experience on depth electrode correlates of surface EEG patterns in adult FLE. Those who plan to attend are welcome to bring cases for group discussion, if time permits. If you plan to bring a case, please inform the organizer by e-mail: bswartz@hoaghospital.org.

Herbs and Botanicals

Steven Schachter, M.D.

Based on terrific feedback from the 2005 AES meeting of the Botanical SIG, the Botanical SIG session at the upcoming AES meeting will feature a talk and discussion led by Freddie Ann Hoffman, M.D., on the topic "FDA and regulatory pathways for botanicals: considerations for clinical investigators and IRBs." Dr. Hoffman is a former FDA official and consultant on botanical drug approvals. We look forward to an exciting and stimulating program.

Junior Investigators SIG

Manisha Patel, Ph.D.

This year's program is geared toward addressing the increased level of anxiety among junior investigators about making the commitment to an academic career during a difficult funding climate. The session, "Career Development and Funding Opportunities for Junior Investigators," will include a panel of representatives from NIH and non-NIH funding agencies. The speakers will discuss each individual agency's commitment to programs for junior investigators. Susan Axelrod will discuss efforts by CURE to promote the careers of junior epilepsy researchers. Tallie Baram will give an overview of the success that Partnership for Pediatric Epilepsy has achieved in developing the careers of junior epilepsy researchers and discuss its future plans. Margaret Jacobs will discuss the new initiatives launched by NIH for the career development of junior investigators. Jaideep Kapur will give an overview of grants and fellowship opportunities funded by the Epilepsy Foundation of America. The goal of the session is to provide junior investigators with useful tips for successfully obtaining grants and

fellowships from the various epilepsy-focused agencies.

Ketogenic Diet: Issues of Implementation, Efficacy and Mode of Action

Thomas N. Seyfried, Ph.D.

Participants: Beth Zupec-Kania, Heidi Pfeifer, John Mantis, and Avtar Roopra.

The high fat, low carbohydrate ketogenic diet (KD) was developed originally to mimic the antiepileptic effects of fasting. Although the KD is remarkably effective in managing intractable seizures in children and adults, issues of implementation may impact the efficacy of the diet. Questions remain as to whether the mechanism of antiepileptic efficacy involves elevated ketones, reduced carbohydrates, or some combination of these. This year's KD SIG will focus on issues of implementation of the ketogenic and low glycemic diets in the clinic (Beth Zupec-Kania and Heidi Pfeifer) and potential mechanisms of action in epilepsy animal models (John Mantis and Avtar Roopra).

Sleep and Epilepsy: Results of a Pilot Clinical Trial Investigating the Effects of Treatment of Obstructive Sleep Apnea in Refractory Epilepsy

Nancy R. Foldvary-Schaefer, D.O.

Epilepsy affects approximately 2.5 million Americans, resulting in substantial disability. Because up to thirty percent of patients with epilepsy continue to have seizures despite appropriate medical therapy, additional interventions to improve seizure control are needed. One approach is to treat coexisting sleep disorders, such as obstructive sleep apnea (OSA). OSA may exacerbate seizures via sleep fragmentation, sleep deprivation, hypoxemia or other pathophysiological processes that have not yet been elucidated. A body of literature supports the concept that OSA, and sleep disorders in general, increase excitability in the epileptic brain. Recent case series have shown that OSA is common in refractory epilepsy patients and that treatment of OSA may improve seizure control. Proof that treating OSA is effective in improving seizure frequency will require a multicenter randomized clinical trial (RCT). This SIG will discuss findings of a pilot clinical trial undertaken to determine critical information for the design of the RCT. Data on the use of OSA screening instruments, PSG methodology, CPAP tolerability and

Continued on page 9

SIGnals*(continued from page 8)*

compliance, seizure outcome, health-related quality of life and daytime sleepiness will be presented by the primary investigator, Beth Malow, and co-investigators, Bradley Vaughn, Linda Selwa, and Nancy Foldvary-Schaefer.

Patient-Reported Outcomes: Is the Neurology Community Doing a Good Job in Treating Epilepsy?

David M. Ficker, M.D. and Frank Gilliam, M.D., M.P.H.

There is a significant proportion of patients with uncontrolled epilepsy. Despite enhanced management options, many patients are not offered advanced treatment options like epilepsy surgery. An audit of epilepsy-related deaths in the UK suggested that up to 39% of deaths in adults and 59% of deaths in children were preventable. Clearly, we need to do a better job in managing epilepsy. This Special Interest Group will discuss the current state of epilepsy management and identify important deficiencies in how epilepsy is treated in the community. Novel methods to improve epilepsy management and outcomes will be discussed.

Neuropharmacology – Rational Polytherapy in the Treatment of Refractory Epilepsy: Fact or Wishful Thinking?

Coordinators: Andres M. Kanner, M.D. and Barry Gidal, Pharm.D.

The use of polytherapy with AEDs is common practice in the management of patients with epilepsy who fail to respond to the first or second drug trials. Several investigators have advocated the combination of AEDs on the basis of different mechanisms of action or pharmacokinetic interactions that can yield higher drug concentrations in the brain. This SIG is aimed at critically analyzing the available data and its applicability to clinical practice. Drs. Emilio Perucca and Raman Sankar will be the presenters and we expect a very lively exchange of ideas.

Engineering and Epilepsy

Hitten Zaveri, Ph.D. and Dennis Spencer, M.D.

A number of inroads have been made over the past several years, with implantable devices, neural prostheses, deep brain stimulation, and the brain-computer interface. Central to many of these efforts,

and an important part of the interface between engineering interventions and the brain, is the brain sensor. The Engineering and Epilepsy SIG (Friday, December 1 at 2:00 p.m.) will discuss the topic: "Sensing the Brain in Epilepsy: Materials and Methods." We will focus on the development of brain sensors, particularly work that may apply to the treatment and study of epilepsy through intracranial monitoring or implantable devices. We have invited leading researchers to comment on challenges to the development of this field. Their presentations will address modalities other than traditional intracranial EEG as well as efforts that complement and/or improve the measurement of intracranial EEGs. The SIG will seek to highlight novel approaches for the development of brain sensors and identify major issues to be addressed for the field to advance. Presentations at the 2005 SIG, on challenges to the continued development of the field of seizure prediction, were recorded and can be viewed from the Epilepsy Therapy Development Project Web site: http://www.epilepsytdp.org/sec/webcast_sig_2005. Presentations at the 2006 SIG will also be recorded and hosted by the Epilepsy Therapy Development Project. Announcements of relevance to this SIG are mailed to the Engineering and Epilepsy SIG e-mail list. To be placed on this e-mail list please contact Hitten Zaveri at hitten.zaveri@yale.edu.

Epidemiology

Coordinator: W. Allen Hauser, M.D.

Febrile seizures are the most frequently occurring class of convulsive disorder affecting between two and nine percent of all children. Many new insights have been developed regarding this class of seizure from an epidemiological perspective. This session will provide an update on epidemiological and clinical characteristics of febrile seizures and their relation to epilepsy. Speakers will review new information regarding the role of neuroimaging, the impact of febrile status epilepticus, the genetics of febrile seizures and the relation between febrile seizures and epilepsy. Presentations will be made by Dale Hesdorffer (Columbia University), Shlomo Shinnar (Albert Einstein College of Medicine), Christie Barker-Cummings (Columbia University), and Ann Berg (Northern Illinois University).

Neuroendocrinology

Cynthia L. Harden, M.D.

This year's topic for the Neuroendocrinology Special Interest Group is "effects of early stress and corticosteroid exposure on behavioral and seizure outcome." Corticotherapy during pregnancy and early in life is common in clinical practice. However, there is increasing evidence that exposure to corticosteroids prenatally or during early postnatal development may have negative effects on behavioral and neurological outcome due to the long-term alterations in the hypothalamus-pituitary-adrenal axis. New animal data suggest that exposure to corticosteroids during the critical period of brain development leads to increased neuronal excitability that can be related to some epileptic disorders such as infantile spasms. Libor Velisek, M.D., Ph.D. will discuss the morphological and functional changes in the brain due to prenatal exposure to corticosteroids, which may be the foundation for a better model of infantile spasms. Tallie Z. Baram, M.D., Ph.D. will present the data from her new studies showing that early postnatal stress might lead to changes in dendritic differentiation in hippocampal neurons that might contribute to impairments in hippocampal function later in life and the role of these changes in infantile spasms. Open discussion will follow the presentations.

Children's Hour

Susan Koh, M.D. and Sookyong Koh, M.D., Ph.D.

The Children's Hour is a special interest group held during the American Epilepsy Society meeting each year on pediatric epilepsy topics. The group is geared toward pediatric and adult neurologists who care for children in their practices as well as other healthcare professionals who treat children.

This year our topic will be "Crossroads: Movement Disorders and Epilepsy in Children." There will be three speakers: Renzo Guerrini, M.D. will speak on the nosology and pathophysiology of syndromes of epilepsy and paroxysmal dyskinesia. Qing Wang, Ph.D. will discuss molecular biology and the role of BK channel dysfunction in epilepsy and paroxysmal dyskinesia. Louis Ptacek, M.D. will talk on molecular genetics of periodic paralysis, paroxysmal dyskinesia and other types of movement disorders and epilepsy.

Continued on page 10

SIGnals*(continued from page 9)*

After the speakers a video session of examples will document the dilemma of diagnosing movement disorders and childhood epilepsy. Finally, we will conclude with a panel discussion and questions from the audience. This exciting and informative session will delve into the common features shared between movement disorders and childhood epilepsy as well as the difficulties in differentiating between the two disorders.

MEG/MSI**Coordinator: Wenbo Zhang, M.D., Ph.D.**

Since 2002 magnetoencephalography/magnetic source imaging (MEG/MSI) has been approved for clinical application. MEG/MSI has developed into an excellent tool for presurgical evaluation for epilepsy and brain tumor patients. However, its potentials and correlation with established invasive neurophysiological testing are not fully understood. How to apply the data and correlate with other imaging modalities clinically also needs to be discussed. The MEG/MSI special interest group will focus on the topics of clinical application of epileptogenic localization and functional mapping. The faculty includes noted MEG/MSI experts Andrew C. Papanicolaou, Ph.D. (neuropsychologist) from The University of Texas – Health Science Center, Houston; Brien Smith, M.D. (epileptologist) from Henry Ford Hospital, Detroit; and Kyousuke Kamada, M.D., Ph.D. (neurosurgeon) from The University of Tokyo.

Dr. Papanicolaou will discuss “MEG vs. ‘Gold Standard,’ the Relative Efficacy of MEG vs. Invasive Electrophysiology to Identify Epileptogenic Zones and MEG vs. Cortical Stimulation in Pre-surgical Mapping.” Dr. Smith will present “MEG Coherence Imaging to Determine the Epileptogenic Zone.” Dr. Kamada’s presentation will be “Visualization of Language Network on Tractography by the Co-utilization of MEG and Functional MRI—Validation by Electrical Cortical-subcortical Stimulations.”

Genetics: Genes, Drugs and Seizures: How Can Genetics Best Advance the Pharmacotherapy of Epilepsy?**Thomas N. Ferraro, Ph.D.**

The subject of this year’s Genetics SIG deals with the broad and important issue of pharmacogenetics of antiepileptic drugs (AEDs). So far, the field of epilepsy research has benefited from the genetic revolution mostly by virtue of identification of epilepsy-causing gene mutations. These findings have provided insight into disease pathogenesis but so far have not led to significant therapeutic advances. Better treatment of epilepsy is needed and this can be accomplished by correlating genetic information with clinical measures of AED effects. The promise of pharmacogenetics for enhancing AED therapy has been on the horizon for some time; however, results that facilitate improved responsiveness or decreased toxicity have been slow in coming.

Given this background, the goals of this year’s Genetics SIG session will be (1) to briefly introduce key concepts regarding the application of pharmacogenetics to AED therapy (Thomas N. Ferraro, Ph.D., University of Pennsylvania); (2) to discuss the parameters of valid AED pharmacogenetic study design and consider the obstacles that most hinder the conduct of successful studies (Dennis J. Dlugos, M.D., Children’s Hospital of Philadelphia); and (3) to provide an update on the role of SCN1A and CYP gene variations in AED responsiveness (David Goldstein, Duke University). Based on the presented material, the moderators will focus discussion upon efficient and appropriate translational research strategies that will ultimately allow incorporation of genetic information into AED therapeutic regimens. The overall format for the session will be 20 minute presentations followed by discussion.

There has been a change in the scheduling of the Genetics SIG. Previously slated for Tuesday, the Genetics SIG will now convene on Saturday afternoon (1:00-2:30 p.m.). Please consult the final program for room assignment.

The Potential Perils of Switching Formulations of AEDs*(continued from page 4)*

FDA’s attention, the response was “show us the data and tell physicians and patients to file adverse event complaints.”

Every neurologist who treats people with epilepsy will say that he or she has patients who have had breakthrough seizures when switching from brand to generic, or switching among various generic products. The overwhelming majority of these physicians, however, do not report these to the FDA as an adverse event, primarily because of the difficulty of proving that the breakthrough seizure is a result of the medication change.

The Epilepsy Foundation believes there is a need for a review of all current data to document the nature of the problem, so that a solution may be developed. Therefore, Dr. Steven C. Schachter, Professor of Neurology at Harvard Medical School, is leading a special advisory committee to conduct a worldwide literature search on breakthrough seizures, variations in bioavailability or bioequivalence in different formulations of the same product. The committee plans to review the data and then develop a written synopsis of its indications. In the meantime, the Foundation is also conducting a nationwide survey of consumers to assess individual reports — admittedly anecdotal — of experiences with changes in medications.

Based upon the results of the activities conducted by the committee, the Foundation intends to produce a white paper on the current status of knowledge on switching antiepileptic medications and substitution of different formulations of the same therapeutic agent. It will also provide detailed recommendations for future research needs and for public policy development at the federal and state levels. The Epilepsy Foundation looks forward to working with the American Epilepsy Society in the development of the white paper and its recommendations.

In the final analysis, the Epilepsy Foundation remains committed to ensuring that all people with epilepsy have access to the medication that best meets their individual needs and that the patient and physician work together toward the best health outcome.

AMERICAN EPILEPSY SOCIETY

Education at your convenience

These **online sessions** integrate knowledge and dynamic interaction to enhance the online learning experience for epilepsy-related professionals. Each session delivers interactive knowledge as presented at the **AES Annual Meeting** and is intended to provide quality continuing medical education for physicians, researchers and other professionals whose goal is to improve the quality of life for those afflicted with epilepsy and other seizure-related disorders.

2005 Annual Meeting Sessions currently available online:

- Spanish Symposium
- AET Symposium
- Presidential Symposium
- PEC Symposium
- Pediatric Epilepsy State of the Art
- Hot Topics Symposium
- AED Pharmacology: Application to Practice Symposium
- Merritt-Putnam Symposium
- Resective Epilepsy Surgery Symposium
- Annual Course
- Plenary II
- Plenary III
- Impaired Consciousness in Epilepsy: Mechanisms and Consequences Symposium

2004 Annual Meeting Sessions currently available online:

- AET Symposium
- Presidential Symposium
- Allied Health Symposium
- Pediatric Epilepsy State of the Art
- Epilepsy in the Elderly
- Health-Related Outcomes in Epilepsy
- Merritt-Putnam Symposium
- Neuroprotection and Epilepsy
- Annual Course
- Plenary II
- Plenary III
- Pregnancy and Epilepsy
- Refractory Epilepsy
- Status Epilepticus

View the Sessions Online at www.AESNET.org/ed



The American Epilepsy Society is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

American Epilepsy Society

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EPILEPSY CALENDAR OF EVENTS

January 24-27, 2007

**9th Asian Oceanian Congress of
Child Neurology**

Cebu City, Cebu, Philippines

www.aoccn2007.org

February 4-14, 2007

**1st Latin American Summer
School on Epilepsy – LASSE**

Epilepsy: Translating basic
knowledge into clinical applications

São Paulo, Brazil

esper.nexp@epm.br

February 21-24, 2007

**1st East Mediterranean
Epilepsy Congress**

Luxor, Egypt

www.epilepsyluxor.org

March 22-24, 2007

Antiepileptic Drug Trials – IX

Sunny Isles Beach, Florida

www.aedtrials.com/overview

March 29-30, 2007

Curing Epilepsy 2007

Bethesda, Maryland

April 7-8, 2007

**The 10th Annual Meeting of
Infantile Seizure Society**

Tokyo, Japan

www.iss-jpn.info

April 12-14, 2007

**1st London Colloquium on Status
Epilepticus**

London, England

[www.conference2k.com/
statusconf.asp](http://www.conference2k.com/statusconf.asp)

July 3-6, 2007

**IX Workshop on Neurobiology of
Epilepsy (WONOEP 2007)**

Langkawi Island, Malaysia

<http://www.wonoep2007.univ-mrs.fr/>

July 8-12, 2007

**27th International Epilepsy
Congress**

Singapore

www.epilepsysingapore2007.org

November 30-December 4, 2007

AES Annual Meeting

Philadelphia, Pennsylvania

www.aesnet.org

For the latest additions to the Epilepsy Calendar of Events,
click on Epilepsy Calendar of Events under the
Professional Development section of the Web site