

# AES News

AMERICAN EPILEPSY SOCIETY

Vol. 13, No. 1

Winter 2004

## “Blizzard” of Research Breakthroughs Shared at 57th Annual Meeting

The 57th Annual Meeting of the American Epilepsy Society added another chapter to the meeting’s legacy of successful knowledge sharing and communications toward finding a cure for epilepsy.

Although a quintessential New England Nor’easter attempted to discourage attendees from around the world, most were not deterred and employed virtually every means of transportation to make the meeting.

This year’s meeting was punctuated by the presentation of the Extraordinary Contributions to the Field of Epilepsy Award, which was awarded to the Esther A. and Joseph Klingenstein Fund during AES Presidential Symposium, chaired by 2003 President Jeffrey L. Noebels, M.D., Ph.D.

The Klingenstein Fund has provided numerous fellowships to outstanding young investigators in epilepsy research. The Fund has helped to launch the independent careers of over 200 scientists who explore the key biological problems underlying human brain development, function and disease.

Klingenstein Fund president John Klingenstein was in attendance to accept the award on behalf of the organization. This year marks the 20th anniversary of the first graduating class of the Fund, of which Dr. Noebels was a member. Dr. Noebels provided a heartfelt summary of the Klingenstein



Esther A. and Joseph Klingenstein Fund president, John Klingenstein (center), stands with AES President Jeffrey L. Noebels, M.D., Ph.D. (right) and Marc Dichter, M.D., Ph.D. (left) after the presentation of the Extraordinary Contributions to the Field of Epilepsy Award.

legacy and emphasized his gratitude for the Fund’s dedication to supporting young investigators.

Eric R. Kandel, M.D., Chair of the Fund’s Scientific Advisory Board, was to present the award to Klingenstein, but was unable to attend the meeting due to the weather. Dr. Kandel, winner of the 2000 Nobel Prize in Medicine for his research in learning

and memory, was represented by former student Marc Dichter, M.D., Ph.D.

“John has been the guiding force behind every phase of the Foundation’s activities over the years,” said Dr. Kandel (through Dr. Dichter). “All of the magnificent accomplishments that the Foundation has achieved are the direct result of John’s dedication, leadership and vision.”

Dr. Dichter was “humbled” by the opportunity to speak on behalf of Dr. Kandel and to have the opportunity to personally honor Mr. Klingenstein.

This year’s “meeting of the minds” also introduced a streamlined schedule, which offered attendees an abbreviated schedule without compromising the quality or length of the programs. With programs running concurrently, meeting attendees had the opportunity to attend their desired courses and avoid downtime in between.

For more Annual Meeting highlights, see pages six and eight.

### PRESIDENT’S MESSAGE

With the beginning of a new year, I want to thank you for the privilege of allowing me to serve as your president. As a result of the involvement of all of



you in the educational activities of our Society, the volunteer efforts of hundreds of individual members, the superb administration provided by Suzanne Berry and her staff, and the attentive and wise leadership of Jeffrey Noebels and the 2003 Board of Directors, our Society is as vibrant and thriving as ever. It is an honor to take the helm and continue to build upon the great successes of the past.

In thinking about the year ahead, I will be adopting a theme that is embodied within the phrase *Reaching Forward and Reaching Outward*. *Reaching Forward* refers to focusing on the needs of the people who will carry the banner of epilepsy care and epilepsy research in the future. Our long-term goal of curing and preventing epi-

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**Editorial Deadlines**

Spring/Summer 2004 – June 18, 2004  
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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. Active membership for one year is \$180 and includes a subscription to the journal *Epilepsia*. Junior Membership is \$140 annually; *Epilepsia* subscription is optional for Junior members. Active and Junior membership is limited to residents of the USA, Canada, and Mexico. Corresponding membership is limited to residents outside of North America. It does not include a subscription to *Epilepsia*, and fees are \$135. Senior membership is available to Active Members who have reached the age of 65.

**President's Message**

(continued from page 1)

lepsy, and the long-term vitality of AES, depends on our ability to attract young people with the best hearts and minds into our field, cultivate their career development, and provide them with as much support as possible in their work as healthcare providers, leaders, scholars and discoverers. To this end, efforts over the last few years by the AES and other partner organizations such as the Epilepsy Foundation, Citizens United for Research in Epilepsy (CURE), Parents Against Childhood Epilepsy (PACE), and others have achieved an unprecedented level of funding for pre- and post-doctoral fellowships and research grants for both basic and clinical scientists. The prospects for even more funding have never been brighter, and a major goal of the coming year will be to consider new mechanisms for supporting young people during their training years, and establishing some reasonable set of priorities as to the types of clinical training and research programs that deserve the greatest attention at this time.

Another essential element of *Reaching Forward* is planning ahead for the practice environment of the future. Subspecialty board certification in epilepsy strikes me as inevitable, and it is essential that AES plays a leading role in shaping the nature of the certification process. To this end, I am very pleased that John Gates, a member of our Board and a leading advocate for epilepsy practitioners, is ensuring that we stay well informed about the discussions on this subject and are direct participants in the planning process itself.

*Reaching Outward*, the other theme for the year, refers to proactive efforts to develop stronger connections with our colleagues in epilepsy throughout the world. We in the United States are blessed with unmatched resources that have enabled us to attain some of the highest standards of patient care and a research enterprise that, as a whole, is unparalleled. I hope to see AES

come up with new, creative programs for exchanging ideas with fellow clinicians and scientists from around the world, especially those in developing countries and with limited resources.

A few initiatives in this direction are already in place. Susan Spencer has formed a task force to fashion *The North American Report*, an overview of the current state of epilepsy in this part of the world. This document, added to recently-published reports from Africa and Europe, will help in the effort by the International League Against Epilepsy (ILAE) to place epilepsy in a global context and influence policies and resource allocation that bear directly on the lives of people with epilepsy.

Another initiative is an outgrowth of a highly successful, collaborative project between AES and the Society for Neuroscience (SFN) to provide young investigators of all backgrounds with an introduction to the field of epilepsy research. The program, organized by Jeffrey Noebels and Marc Dichter, was introduced at the November SFN Annual Meeting in New Orleans. The faculty was comprised of more than 15 AES members, and was so popular and of such high quality, that SFN, ILAE and AES have decided to expand the program internationally, with the first stop likely to be in Africa.

These are exciting times for AES. I look forward to a year in which we will further strengthen our educational programs and provide support aimed at career development for our young and talented members. I also look forward to increasing our participation in the world-wide effort by physicians, scientists and other healthcare professionals on behalf of people with epilepsy. Our collective creativity, passion and commitment will make the dream of a world free of epilepsy that much closer to becoming a reality; what a wonderful day that will be!

## The AES/VEC Is Open for Business

**Be sure to check out the  
American Epilepsy Society  
Virtual Exhibition Center at [www.aesnet.org](http://www.aesnet.org)**

**Hours: 24 hours a day, 7 days a week**

# Lowenstein Named President of Society

**D**aniel H. Lowenstein, M.D., professor and vice chairman in the Department of Neurology at the University of California, San Francisco (UCSF), was sworn in as the 2004 President of the American Epilepsy Society (AES) at the 2003 Annual Meeting in Boston. Dr. Lowenstein also serves as the director of the UCSF Epilepsy Center and is director of Physician-Scientist and Education Training Programs for the UCSF School of Medicine.

“Dr. Lowenstein, in addition to being an active clinician and researcher, has found time over the years to be a very involved volunteer, including significant input on CME and education at AES,” says M. Suzanne C. Berry, MBA, CAE, Executive Director of AES. “His commitment to furthering the causes of AES is surpassed only by his dedication to finding a cure for epilepsy.”

A clinician-scientist who studies both basic science and clinical aspects of epi-

lepsy, his laboratory studies concern the fundamental mechanisms of neuronal network remodeling that occur during epileptogenesis; i.e., the process in which a normal network transforms into a hyperexcitable network capable of producing or relaying seizure activity. His main efforts have focused on the various forms of cellular reorganization that are observed in humans with temporal lobe epilepsy, and the parallels between reorganization in the adult nervous system and normal developmental processes.

“It’s a tremendous honor and privilege to have the responsibility of the AES presidency,” says Dr. Lowenstein. “I look forward



**Daniel H. Lowenstein, M.D., right, is introduced as 2004 AES President by Jeffrey Noebels, M.D., Ph.D.**

to doing everything I can to help us fulfill our goals as a group devoted to the eradication of epilepsy.”

Recent discoveries by his research group include the finding that seizure activity in an adult model of temporal lobe epilepsy causes a marked increase in the birth of hippocampal neurons, and that some of these neurons contribute to axonal reorganization. Combined with other findings

showing that molecules responsible for normal development are expressed in this same brain region in the adult, these studies bear not only on the neurobiology of epilepsy, but also on the broader issue of neurodevelopment and the capacity for regeneration in the adult nervous system after injury.

For a complete list of the 2004 Board of Directors, turn to page seven.

## AES, Epilepsy Community Mourns Three Pioneers

### **Richard L. Masland, M.D. • 1910-2003**

Richard L. Masland, M.D., 93, former director of the National Institute of Neurological Disorders and Stroke (NINDS) at the National Institutes of Health, died on December 19, 2003.



Dr. Masland served AES as President in 1954 and as Lennox Lecturer in 1978. His involvement in his field and in AES deservedly earned him the 1987 Lennox Award, and in 1989 he was presented with the AES Award for Social Accomplishment.

Born in Philadelphia, Dr. Masland earned his undergraduate degree in chemistry from Haverford College in 1931 and his medical degree from the University of Pennsylvania School of Medicine in 1935.

Widely recognized as an expert on mental retardation, Dr. Masland served as the second director of the Institute from 1959 to 1968.

During his career, he received many awards for his work. In 1963, President John F. Kennedy presented Dr. Masland with the National Association for Retarded Children’s Award of Merit.

### **Peter Kellaway, Ph.D. • 1920-2003**

Peter Kellaway, Ph.D., died on June 25, 2003 at the age of 82. As an active member of AES, he served as President in 1960, the Lennox Lecturer in 1982 and received the Lennox Award in 1996. In addition, he was the first recipient of the AES/Milken Family Foundation Distinguished Clinical Investigator Award in 1989.



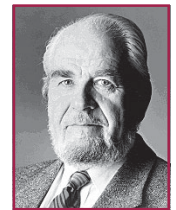
Dr. Kellaway was a world-renowned epileptologist, who is most noted for his advancements in pediatric epilepsy care and the development of EEG use in everyday diagnosis of children with seizure disorders.

In 1947, Dr. Kellaway earned his Ph.D. in neurophysiology from McGill University in Montreal. In 1948, he moved to Houston, where he joined the faculty of Baylor College of Medicine, where for 55 years he facilitated the growth of EEG use as an integral part of treating children with seizure disorders. For his dedication to caring for those afflicted with epilepsy, he was presented with an honorary M.D. from the University of Gothenburg in Sweden.

*Please see *Epilepsia* 45(1), 93-95, 2004 for more information on Dr. Kellaway.*

### **Pierre Gloor, M.D., Ph.D. • 1923-2003**

Pierre Gloor, M.D., Ph.D., innovator in the use and interpretation of EEGs, passed away on October 24, 2003, at the age of 80. Dr. Gloor served as AES President in 1976, Lennox Lecturer in 1977 and was awarded the Lennox Award in 1981.



Born in Switzerland in 1923, Dr. Gloor moved to France and earned his medical degree from L’Hôpital Louis Pasteur in Colmar, France in 1949. In 1952, he began work as a fellow in electroencephalography and neurophysiology at McGill’s Montreal Neurological Institute, where in 1957, he completed his Ph.D.

He is best remembered for his active role in training his students in the practical use and the proper interpretation of EEGs, which has created an entire generation of world-class experts in this field.

His over 250 scientific articles extensively covered brain research and culminated in the publishing of his quintessential piece, *The Temporal Lobe and Limbic System*. The piece, published in 1997, spans his career of research into the many disorders of the temporal lobe.

## NINDS REPORT

## Landis Presents NIH Roadmap for Medical Research

By Margaret P. Jacobs, Program Director, NIH/NINDS Extramural Research Program



At the American Epilepsy Society's 57th Annual Meeting in December, NINDS Director Story Landis, Ph.D., addressed attendees during the Presidential Symposium. Dr. Landis spoke about the NIH Roadmap program which has become a topic of speculation in many institutions.

This national research agenda was instituted by Elisa Zerhounim, M.D., shortly after becoming the Director of NIH in May 2002. The NIH Roadmap accelerates the translation of research discoveries from the bench to the bedside. This program was developed with input from leaders in academia, industry, government and the public to identify gaps in biomedical research that are too broad for any NIH insti-

tute to undertake alone, but that the agency as a whole should address in order to have the biggest impact. It builds on the progress in medical research achieved, in part, through the recent doubling of the NIH budget.

The NIH Roadmap focuses on opportunities in three main areas: New Pathways to Discovery, Research Teams of the Future, and Re-engineering the Clinical Research Enterprise.

The New Pathways to Discovery theme addresses the need to understand complex biological systems, which includes building a better "toolbox" to assist researchers in the areas of bioinformatics, structural biology, nanomedicine and molecular libraries and molecular imaging.

As part of its Research Teams of the Future theme, the Roadmap seeks to encourage scientists and scientific institutions to use alternative models for conducting re-

search, such as public-private partnerships, and high-risk and interdisciplinary research.

The intent of the Re-engineering the Clinical Research Enterprise is to promote better integration of existing clinical research networks, encourage the development of technologies to improve the assessment of clinical outcomes, "harmonize" regulatory processes and enhance training for clinical researchers.

Initiatives are being developed as part of the Roadmap that will provide the highest potential impact that will be responsive to the needs of the public and enhance the mission-specific activities of all of NIH's 27 institutes and centers. Initiatives that build upon existing research efforts are expected to achieve their goals rapidly, while other new or more complex endeavors are expected to take several years to come to fruition. Further details about the NIH Roadmap, as well as current initiatives, can be found at: <http://nihroadmap.nih.gov>.

## EPILEPSY FOUNDATION UPDATE

## Epilepsy Foundation Announces Election Results

By Eric Hargis, President & CEO, Epilepsy Foundation



At the December Annual Meeting in Boston, the Professional Advisory Board of the Epilepsy Foundation elected Gregory L. Barkley, M.D., to a two-year term position as chair. Bruce Hermann, Ph.D., was also elected as chair-elect and Thomas Henry, M.D., was elected as secretary to the board.

The Advisory Board is comprised of 50 leading members of the medical and scientific community, most are members of the American Epilepsy Society. The Board advises the Epilepsy Foundation on medical and scientific issues affecting people with epilepsy and provides professional peer review for the more than \$2 million in research grants funded each year.

"I plan to continue to use existing Epilepsy Foundation initiatives on the effects of epilepsy in the areas of cognition, employment, and psychosocial aspects of health," said Dr. Barkley. "Furthermore, the

Professional Advisory Board will continue to try to help people with epilepsy by advocating for fairness in driving regulations. All of these initiatives will be done in close collaboration with professional societies and government health agencies that are concerned about the welfare of people with epilepsy."

Dr. Barkley is Medical Director of the Henry Ford Comprehensive Epilepsy Program in Detroit and associate professor of neurology at Case Western Reserve University. He also serves on the Professional Advisory Committee of the Epilepsy Foundation of Michigan.

## More Election Results

At its December meeting, the Epilepsy Foundation's Professional Advisory Board elected the following new members to four-year terms:

Scott Baraban, Ph.D.  
Sandy Dewar, RN  
Alan Ettinger, M.D.  
Carolyn Houser, Ph.D.  
Brian Litt, M.D.  
Georgia Montouris, M.D. – re-elected  
Richard Rovner, M.D. – re-elected  
Anbesaw Selassie, PH  
Tess Sierzant, RN, M.N. – re-elected  
Joseph Sirven, M.D.

Carl Stafstrom, M.D., Ph.D.  
Basim Uthman, M.D.  
Blanca Vasquez, M.D.  
Mark Yerby, M.D.

*Liaison members of the Board of Directors*

John Barry, M.D.  
Nina Graves, Pharm.D.  
Brian Smith, M.D. – new  
Bruce Hermann, Ph.D.  
Ruth Ottman, Ph.D.  
Tess Sierzant, RN, M.N.

*Elected as at-large members*

Joan Austin, D.N.S., RN, FAAN  
Jeffrey Noebels, M.D.  
Solomon Moshe, M.D.

## PRACTICE RX

# Coding for Video EEG Monitoring

By Gregory L. Barkley, M.D., Chair, Practice Committee



A lot of questions arise about how to code for video EEG monitoring. The CPT code in question is 95951. The code is defined to be used for each 24-hour period of video EEG monitoring and is specifically defined for use in seizure localization. The questions usually center around the use of the code for the first and last days of inpatient monitoring and for outpatient video EEG monitoring. The major issue is how to use the reduced service modifier (-52) for shorter recordings. At the current time, there is no consensus statement from our professional organizations (such as the AES, the AAN, the NAEC, or the ACNS) on the use of this code. The AMA has commented on the use of the -52 modifier in the publication, *cpt Assistant*, Vol. 13, No. 3 in March 2003, and stated that

the 95951 code could be used without the modifier even for shorter recording times such as a five-hour video EEG.

I think that this advice is incorrect as it is inconsistent with rulings that have been applied to other time-based codes. Take the critical care code, 99291, as an example. It is defined as for the first hour of critical care. For codes such as these, the code can be used when the procedure is performed for more than half of the time stated in the definition, so that it can be used for 31-60 minutes of critical care. Applying this principle to 95951, the code should be used without modifier for monitoring sessions longer than 12 hours (12 hours, 1 minute to 24 hours). For recordings less than 12 hours, the -52 modifier should be applied.

What then is the minimum recording time that one can use 95951 with a -52 modifier? Again I would apply established time-based guidelines and would define as the minimum

time that a time-based code should be used as one quarter of the time in the definition. For a 24-hour code such as 95951, that means that it can be used with the -52 modifier for video EEG monitoring of 6-12 hours. For video EEG monitoring less than six hours, the codes that are most applicable are "extended EEG >1 hour", 95813 for recordings of 61 minutes to 6 hours, 95812, extended EEG < 1 hour for EEGs lasting 41-60 minutes, and 95819 for awake and asleep EEGs from 20-40 minutes.

In summary, for the first and last days of inpatient monitoring, start at midnight to determine the number of hours of video EEG recording for that date. If you have recorded for more than 12 hours, then code 95951. If you have recorded for 6 to 12 hours, then code 95951-52. If you are performing 8-hour video EEG monitoring on outpatients, use 95951-52 as long as the recording lasts at least 6 hours.

## SIGnals

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

### Neuroimaging

**Gregory D. Cascino, M.D.**

The Neuroimaging Special Interest Group at the 57th Annual Meeting of the American Epilepsy Society in Boston, MA discussed the potential clinical applications of functional magnetic resonance imaging (fMRI) in patients with epilepsy. The use of interictal and ictal fMRI to localize the epileptogenic zone in patients with intractable partial epilepsy was presented by Graeme Jackson, M.D. Whole brain 3 Tesla MRI studies were performed with concomitant EEG analysis. Spike-triggered fMRI in association with epileptiform discharges assisted localization of epileptic brain tissue. Co-registration of the color-encoded fMRI localized alteration with the structural MRI-provided elegant images. William Gaillard, M.D., discussed the clinical investigations using fMRI to lateralize and localize functional cortex

intimately associated with speech and language. fMRI techniques may obviate the need for a sodium amobarbital study to lateralize language in patients being considered for surgical treatment. The limitations of functional neuroimaging to assess cognitive functions and the potential risk associated with a medial temporal resection in patients with intractable partial epilepsy were also reviewed.

### Basic Mechanisms – Multi-Drug Resistance in Epilepsy

**Wolfgang Loescher, Ph.D.**

After an introduction by W. Loescher, the roundtable started with five-minute statements by invited investigators on the following topics: D. Schmidt, Clinical phenomenology of multi-drug resistance and potential risk and prognostic factors; W. Loescher, The concept of overexpression of multi-drug transporters as a mechanism of pharmacoresistant epilepsy; E. Aronica, Overexpression of multi-drug transporters in different types of pharmacoresistant epilepsy; A. Vezzani, Site-specific brain overexpression of MDR1: functional implications; A. Mazarati, Constitutive vs. in-

ducible compartment of P-glycoprotein in AED-resistance during status epilepticus; S. Sisodiya, The role of polymorphisms in multi-drug transporters in pharmacoresistant epilepsy; H. Beck, Target alterations as a mechanism of pharmacoresistant epilepsy; T. O'Brien, Alternatives to pharmacological therapy in pharmacoresistant epilepsy. These topics were then discussed together with the audience. Furthermore, a number of scientists in the audience presented their viewpoint or new unpublished findings on different aspects of multi-drug resistance in epilepsy, including the potential role of transporters such as P-glycoprotein in protection of neurons against apoptosis.

### NIH

**Margaret Jacobs**

The purpose of this special interest group is to address the NIH grant process with the aim of helping investigators navigate the system effectively. This year there was a change in emphasis and, instead of gearing the program to those beginning the grant process, we addressed the funding of NINDS Clinical Trials. The Neurology Institute is committed to identifying effective and inno-

*Continued on page 14*

# AES/Milken Family Foundation Announce 2003 Awardees

The American Epilepsy Society (AES) and the Milken Family Foundation (MFF) awarded Susan Spencer, M.D., and Dan McIntyre, Ph.D., the coveted American Epilepsy Society (AES)/Milken Family Foundation (MFF) Epilepsy Research Awards. The Awards were given at the Society's 57th Annual Meeting in Boston in December.

The Milken Awards recognize the role of pioneering scientists in the field of epilepsy research, and advance the Milken Family Foundation and American Epilepsy Society goals of helping talented scientists achieve their full potential in creating and carrying out lasting solutions to the challenges facing 55 million people in the world with epilepsy.

"By supporting exceptional epilepsy researchers, we testify to our firm belief that their discoveries today will help open up worlds of knowledge for the future, knowledge that will once and for all eradicate this age-old disease and bring peace and health to those it has afflicted," said Lowell Milken, Chairman and Co-Founder of the Milken Family Foundation.

Dan McIntyre, Ph.D., a professor of psychology at Carleton University in Ottawa, Ontario, is considered a pioneer in the field of epilepsy. He has served the epilepsy community by helping to forge one of the most important advances in epilepsy research: kindling. As a graduate student working with the late Graham Goddard, the two of them engineered the ideas and research behind the kindling phenomenon. His contributions range from the identification, breeding and analysis of slow and fast kindling rates to the first description of the remarkable neuroprotective effect of kindling against seizure-induced brain damage.

"My research life has been committed to discovering the basis of this condition," says Dr. McIntyre. "It's an honor that my pursuits and contributions have meant enough to the epilepsy community worldwide to select me for this award."

Kindling has since become the foundation for an overwhelming preponderance of research in limbic epilepsy over the last 30 years and is now considered a standard tool in the efforts to understand the multiple mechanisms of this disorder.

In announcing the award, the selection committee noted that Dr. McIntyre has developed a reputation not only for the quality of his research, but also for his collaborative research style and his mentoring of young investigators. "His work has served as a cornerstone for modern epilepsy research" commented Philip Schwartzkroin, Ph.D., chairman of the selection committee.

Yale University's Susan Spencer, M.D. is well-recognized throughout the world for her dedication to epilepsy. She has been involved with a myriad of national and international epilepsy societies, serving on many boards of directors. Her contributions on seizure semiology and localization of epileptogenic foci, among others have had a major influence on epilepsy management and establishing preferred treatment options for patients with medically refractory seizures.

"I am thrilled and honored to receive the Milken Award, says Dr. Spencer. "This award is a benchmark in my career, recognizing my previous work and providing inspiration to continue to forge ahead in my clinical epilepsy research."

Since 1980, her work has been centered at Yale-New Haven Hospital and the Yale University School of Medicine. She currently serves as the Director of Clinical Epilepsy Service and Electro-physiological Monitoring at the hospital's Department of Neurology and is also Professor of Neurology at the Yale School of Medicine. She has received a myriad of awards and accolades, including being continually listed as one of America's Top Doctors by the likes of White and Woodward, along with Castle and Connolly.

The AES/Milken Family Foundation Epilepsy Research Awards were presented during luncheon ceremonies held in connection with the AES Annual Meeting at the Hynes Convention Center in Boston. The



(Left to right) AES Executive Director M. Suzanne C. Berry, MBA, CAE; Chairman of the selection committee Philip Schwartzkroin, Ph.D.; Milken Award Winners Susan Spencer, M.D., and Dan McIntyre, Ph.D.; and 2003 AES President Jeffrey Noebels, M.D., Ph.D.

program also provides research fellowships to young investigators at a critical stage in their careers as incentives to pursue epilepsy research.

## The 2004/2005 recipients include:

**Peter Dobelis, Ph.D.**

University of Colorado

**Farah D. Lubin, Ph.D.**

Baylor College of Medicine

**Daniel McCloskey, Ph.D.**

Helen Hayes Hospital/  
NY State Dept. of Health

**Olivier Pascual, Ph.D.**

University of Pennsylvania

**Jina Shin, Ph.D.**

Stanford University

**Takashi Sugawara, Ph.D.**

University of Washington

**Xiangming Zha, Ph.D.**

University of Iowa

**Chunmei Zhao, Ph.D.**

Salk Institute for Biological Studies

The Milken Family Foundation was established by brothers Lowell and Michael Milken in 1982 with the mission to discover and advance inventive, effective ways of helping people help themselves and those around them lead productive and satisfying lives. The Foundation advances this mission primarily through its work in education and medical research. To learn more, visit [www.mff.org](http://www.mff.org).

## AES Distinguished Achievement Award Winners Presented at 2003 Annual Meeting

### William G. Lennox Award

#### Carl B. Dodrill, Ph.D., University of Washington

Dr. Dodrill is Professor Emeritus in the Departments of Neurology, Neurological Surgery, and Psychiatry and Behavioral Sciences at the University of Washington, School of Medicine in Seattle. As one of the first neuropsychologists involved in AES, Dr. Dodrill was Program Chair for AES in 1980, served on the AES Board of Directors, and has been on various AES committees over the years. He has been the lead author or a co-author on 100 papers presented at AES Annual Meetings over the last 30 years. He has served on both the Board of Directors and the Professional Advisory Board of the Epilepsy Foundation. He has authored 150 papers, most of which are on various neuropsychological aspects of epilepsy. He was the lead author on the *Washington Psychosocial Seizure Inventory* that has been translated into 20 languages and is used around the world.



### J. Kiffin Penry Award for Excellence in Epilepsy Care

#### W. Edwin Dodson, M.D., Washington University

Dr. Dodson is Professor of Pediatrics and Neurology, Associate Vice Chancellor and Associate Dean for Admissions and for Continuing Medical Education at Washington University School of Medicine in St. Louis, MO.



He has served as a Councilor of the Child Neurology Society, as President of the Central Society for Neurological Research, was a member of the Board of Directors of the American Epilepsy Society and chaired the AES Awards Committee. He also founded and was the first president of The St. Louis Family Support Network, an agency dedicated to the prevention of child maltreatment. Later he served as Chairman of the Children's Trust Fund of Missouri, an organization that works for the prevention of child abuse and neglect. He is also active in the Epilepsy Foundation where he was Chairman of the Professional Advisory Board, President and Chairman of the Board of Directors. The author of more than 120 articles and chapters, he was co-editor of five books on epilepsy (*Pediatric Epilepsy: Diagnosis and Therapy*; *The Assessment of Cognitive Function in Epilepsy*; *Students with Seizures: A Manual for School Nurses*; *Quality of Life in Epilepsy*; and *Treatment of Epilepsy*).

Currently, Dr. Dodson is on the Board of Directors of The Epilepsy Foundation of St. Louis and Vice-President of The Family Support Network. He is Chairman of the Committee on Admissions for the Washington University School of Medicine and continues to participate in investigations of new drugs for the treatment of epilepsy in children.

### AES Service Award

#### Nancy R. Temkin, Ph.D., University of Washington

Dr. Temkin is Professor in the Departments of Neurological Surgery, Biostatistics and Rehabilitation Medicine at the University of Washington, School of Medicine and School of Public Health in Seattle. She has been at the University of Washington since 1977, doing research in the consequences of traumatic brain injury, especially the prevention of post-traumatic epilepsy.

A member of AES since 1977, Dr. Temkin has served on the AES Program Committee and Task Force on Epileptogenesis and is on the editorial board of *Epilepsia*. She has been on the Epilepsy Foundation Professional Advisory Board and Research Committee. Dr. Temkin has been a member of the Food and Drug Administration Peripheral and Central Nervous System Advisory Board and NINDS study section. She has been on numerous data and safety monitoring boards for federally-sponsored as well as industry-sponsored clinical trials.



## AES Names 2004 Board of Directors

The 2004 Board of Directors was officially confirmed at the AES 57th Annual Meeting in Boston. The Board is selected by the nominating committee, which is composed of the three immediate past-presidents and two members-at-large. This composition is designed to combine the broad views of the Society's past leadership with the fresh energy and input of the general membership.

### President

**Daniel H. Lowenstein, M.D.**  
University of California - SF

### First Vice President

**Joan K. Austin, D.N.S., RN**  
Indiana University School of  
Nursing

### Second Vice President

**Greg Holmes, M.D.**  
Dartmouth Medical School

### Treasurer

**Steven Schachter, M.D.**  
Beth Israel Deaconess Medical  
Center

### Past President

**Jeffrey L. Noebels, M.D., Ph.D.**  
Baylor College of Medicine

### Board Members

**Tallie Z. Baram, M.D., Ph.D.**  
University of California, Irvine

**John R. Gates, M.D.**  
Minnesota Epilepsy Group

**Jaideep Kapur, M.D., Ph.D.**  
University of Virginia Health  
Science Center

**Gary W. Mathern, M.D.**  
David Geffen School of Medicine  
University of California, Los Angeles  
(UCLA)

**John M. Pellock, M.D.**  
Medical College of Virginia  
Virginia Commonwealth University

**Dennis Spencer, M.D.**  
Yale University School of Medicine

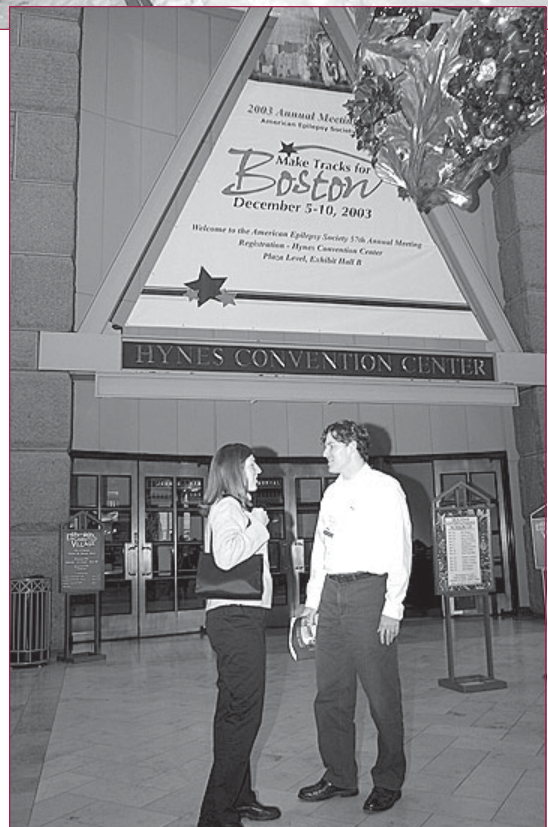
## AES 57th Annual Meeting Update



**Actual Local Forecast:** The “Blizzard of 2003,” which ravaged East Coast cities from Washington, D.C. to New York over the weekend, made its way into Boston on Friday evening with heavy snow, coastal winds and blizzard conditions. Forecasters said the storm should continue into Monday afternoon, leaving between 12-24 inches of snow.



An overhead view of some of the over 900 poster presentations that were part of the 2003 Annual Meeting.

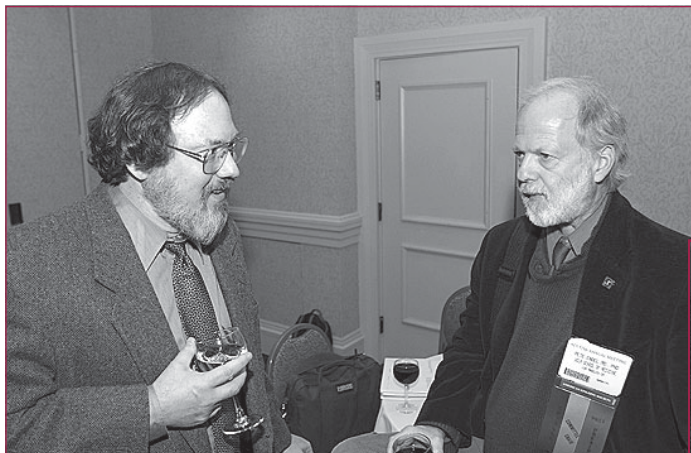
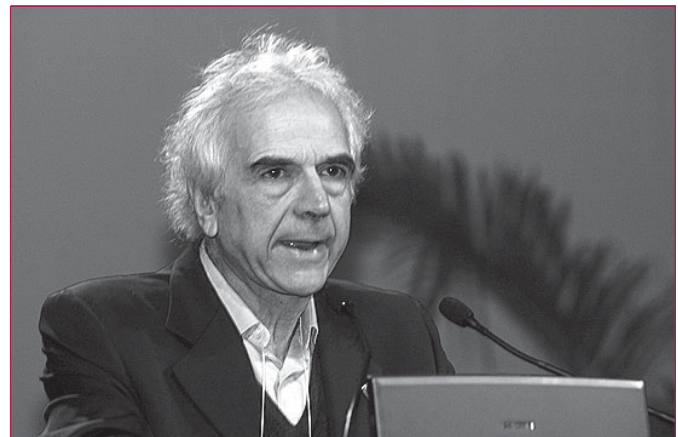


## Faces



Philip Schwartzkroin, Ph.D., Chair of the Research Recognition Awards Committee, speaks with NINDS Director Story C. Landis, Ph.D. (center) and NINDS Program Director Margaret Jacobs outside of Monday's Presidential Symposium.

(Right) Professor Giuliano Avanzini, President of the International League Against Epilepsy, addresses meeting attendees before Saturday's AET Symposium.



(Left) Robert Fisher, M.D., Ph.D., (left) catches up with Jerome Engel, M.D., Ph.D., (right) at the President's Reception.



Even the snowmen made it inside to stay warm and toasty, along with sampling the delicious desserts and taking advantage of the great conversation at Sunday's Special Event.



Lennox Lecturer Frances Jensen, M.D., speaks with Marc Dichter, M.D., Ph.D., following Monday's Presidential Symposium.

Christopher Walsh, M.D., Ph.D., delivers his presentation *Epilepsy Genes That Control Human Cerebral Cortex Development* at Monday's Presidential Symposium.



## Milken Awards



Milken Award recipient Susan Spencer, M.D., (second from left) stands with (left to right) daughter Joanna, husband and AES Board member Dennis Spencer, M.D., daughter Andrea and mother Magda Schneider

Milken Award recipient Daniel McIntyre, Ph.D., (center) poses with family at Monday's Milken Awards Luncheon (left to right) son-in-law, Peter Szufrancowicz, daughter Tobi McIntyre, wife, Nancy, son Jamie McIntyre, granddaughter Siobhan and daughter-in-law Tracey.



## Exhibit Hall





# Take an Active Role in AES

## 2004/2005 Committee Sign Up

There are currently over 500 AES members currently serving in committees. Several new subcommittees and task forces have already been formed this year. In addition to new task forces being formed, committee terms end, allowing new people to get involved. We cannot promise placement but will do our best to get you involved. All committee placements are done based on the information you provide. Placements begin in the Fall for 2005 Committees.

- I have not yet been placed on a committee but am interested in serving.
- I am already on the following committee:

\_\_\_\_\_

**YES**, I would like to be considered for a volunteer position on a committee or task force. My preferences are indicated below as 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>.

Committee/Task Force Name	Committee/Task Force Name
Awards Committee (grants & awards)	<b>Or Specific Education Committee:</b>
Clinical Neuropharmacology Task Force	Allied Health Ed Subcommittee (Year Round)
Corporate Advisory Committee	Annual Course (Annual Meeting)
Employment Issues Task Force	Clinical Investigators' (Annual Meeting)
Epilepsy Currents Contributing Editor	Enduring Materials/Internet Ed (Year Round)
Finance Committee	Investigators' Workshop (Annual Meeting)
Membership Committee	Science Ed. Subcommittee (Year Round)
Practice Committee (Clinical Practice Issues)	Scientific Program (Annual Meeting)
Technology Committee (Web Site)	Student & Resident Education (Year Round)
I am willing to be place on any Committee or Task Force	Any of the Education Committees
I am willing to be placed on a new task force or work group as needed	

I am also interested in getting involved in:

- Special Interest Groups  
Specific Area or Group: \_\_\_\_\_
- Expert Panels or Editorial Review Boards  
My Area of Expertise: \_\_\_\_\_
- I would like to become involved in my local Epilepsy Foundation Professional Advisory Board for (area/location): \_\_\_\_\_
- I am already involved in my local Epilepsy Foundation Professional Advisory Board for (area/location): \_\_\_\_\_

Continued on Reverse

## Committee Sign Up Form, Continued

To assist with placement in the appropriate committee or project, I have the following special skills and areas of expertise (check all that apply):

Basic Research	Practice Management
Clinical Trials	Publicity/public relations
Educational/Meeting Planning	Use of technology/computers
Financial/Investments	Speaker
Fundraising	Website development
Organizational Planning	Writing

My predominant professional activity can best be described as (check all that apply):

Administration	Nursing
Adult Epileptology	Pediatric Epileptology
Adult Neurology	Pediatric Neurology
Basic Science Research	Psychiatry/Behavioral Science/Social Worker
Neuroimaging/EEG	Pharmacology
Neurosurgery	Other:

My contact information is as follows (please print clearly):

Name & Degree: \_\_\_\_\_

My address has recently changed:  
 The following is my:  Work or  Home address.

Please use the following as my Primary Mailing Address  Yes  No

Company/Institution: \_\_\_\_\_

Department/Building: \_\_\_\_\_

Street/PO Box: \_\_\_\_\_

City/State/Province: \_\_\_\_\_

Country/Zip: \_\_\_\_\_

Work Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**Please note: Placements begin in the Fall for 2005 Committees and Task Forces.**

Return this form to:  
 American Epilepsy Society  
 342 North Main Street  
 West Hartford, CT 06117-2507  
 Fax: 860.586.7550

ON THE WEB

## AES Launches Online Postgraduate Training Directory

The American Epilepsy Society (AES) has launched an interactive postgraduate training directory available on the AES Web site, [www.aesnet.org](http://www.aesnet.org).

The directory provides a comprehensive list of available positions around the nation. This fully-sortable 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 and aims to accelerate the process of matching those seeking training to available positions. The directory will be exclusively populated through online submission forms, which for AES members, provides immediate posting when logged into the Web site.

Date Submitted	Program	Institution	Training Director	City	State
02-17-04	Clinical Neurophysiology	Baylor College of Medicine	Mizrahi	Houston	Texas
02-25-04	Epilepsy	Childrens Memorial Hospital / Northwestern Unvers	Goldstein	Chicago	Illinois

## Foundation, AES Open Online “Find A Doctor” Database

The American Epilepsy Society and the Epilepsy Foundation have teamed together to answer one of the most oft-heard questions that both organizations receive: Can you refer me to an expert?

While neither organization offers an actual referral service, AES and the Foundation worked together to develop a searchable, online directory to help patients and families find physicians who specialize in epilepsy care. The site’s programming allows for 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 on the Epilepsy Foundation site at [www.epilepsyfoundation.org/drsearch.cfm](http://www.epilepsyfoundation.org/drsearch.cfm).

**Finding a Physician Who Specializes in Epilepsy Treatment**

Many physicians in the United States provide medical care for epilepsy, including primary care physicians (internists and pediatricians) and general neurologists.

Enter a Zip Code:  Choose a Radius: 25 miles

Some neurologists specialize in the treatment of epilepsy. Many of these doctors are members of the American Epilepsy Society. The Society promotes research and education for professionals dedicated to the prevention, treatment and cure of epilepsy.

The Epilepsy Foundation and the American Epilepsy Society have teamed up to make it easier for website visitors to

## 58th AES Annual Meeting Visits The Big Easy

The American Epilepsy Society’s 58th Annual Meeting will be held December 3 – 8, 2004 in New Orleans, Louisiana.

The New Orleans location will provide a festive location for the meeting, which will again include sessions and presentations featuring the latest in epilepsy research and breakthroughs.

The 2003 Annual Meeting in Boston introduced a streamlined schedule, which took virtually a whole day off of the meeting without compromising the length or quality of the programming. With the success and positive feedback on the schedule, AES will again follow the streamlined agenda to maximize attendees educational and networking opportunities.

“The Big Easy” provides a quaint and interesting look at southern culture. With historical legends like the “Old Man” Mississippi River, the Garden District and Bourbon Street, the exploring never stops. The French Quarter provides unique shopping experiences in its many galleries, antique and souvenir shops.

New Orleans is most famous for its Cajun cooking, with a great restaurant on every corner! Check out Emeril’s or any of the other landmark restaurants around the city.

For more information on the AES Annual Meeting or to plan your New Orleans experience, visit the AES Web site Annual Meeting page at [www.aesnet.org](http://www.aesnet.org).

**2004 Annual Meeting**

**December 3 - 8, 2004**

**Details coming soon!**

**[www.aesnet.org](http://www.aesnet.org)**

**NEW ORLEANS**  
58TH ANNUAL MEETING  
AMERICAN EPILEPSY SOCIETY

**SIGnals***(continued from page 5)*

vative treatments for neurological disorders. But until recently, the epilepsy community has not taken full advantage of this potential funding source. At the December session, Jim Cloyd, Jackie French and Beth Malow, AES members who currently serve on the NINDS Clinical Trials Study Section, and Peter Gilbert, statistician at NINDS, discussed pilot and planning grants, review criteria, and what is needed to write a successful clinical trial application. Those who attended were positive about the program, but felt there was a need for both approaches. Therefore, we have decided to alternate between the general “how to get a grant” session and one that emphasizes clinical trial funding. So, watch for next year’s announcement.

**Sleep and Epilepsy****Beth Malow, M.D., Coordinator**

This year’s Sleep and Epilepsy SIG discussed new developments in the area of sleep disorders. Sleep deprivation in the world and in the medical profession was highlighted by Nancy Foldvary-Schaefer, D.O. She detailed the medical and psychodynamic effects of sleep deprivation and outlined many of the misconceptions regarding sleep and work performance. Her talk also called attention to strategies to counteract the effects of sleep loss and reviewed the potential effect of schedules on performance. Two other disorders, narcolepsy and REM sleep behavior disorder, were discussed. Bradley Vaughn, M.D., discussed the discovery of the relationship of orexin/hypocretin to narcolepsy and cataplexy. Features of this newly discovered neurotransmitter, its neuronal connections and connection to motor control in sleep were reviewed. Dr. Vaughn also discussed the developments in REM sleep behavior disorder. This disorder demonstrates a classical state-dependent neurological deficit and shows how sleep offers a new opportunity to uncover neurological abnormalities. The session was ended with a review of the sleep- and epilepsy-related abstracts presented at the meeting.

**Epidemiology – Pregnancy Registries: Strategies, Recruitment, Results****W. Allen Hauser, M.D.**

There is a continuing concern regarding the effect of in utero exposure to anticonvulsant

drugs. For this reason, there are several registries world wide that are collecting prospective information regarding pregnancy outcome in women with epilepsy. Representatives from the North American Registry, the United Kingdom registry, the European registry and the Lamotrigine registry discussed overall methodology, recruitment strategies and, for the UK and North American Registries, results. There are similarities in target groups. Each aims to recruit women with epilepsy as early as possible in the pregnancy; in general before 16 weeks gestation and before any information on outcome is known. The North American Registry requires women to call their offices. They are then interviewed to obtain seizure and drug history. Follow up is at seven months, and by one month after delivery including delivery records. The UK registry relies on staff at individual centers to recruit and collect data. Information is collected from records at three months after delivery. The European Registry relies on personnel at selected centers to recruit cases, collect data and forward data to a central data base. Follow up will continue for one year after delivery. The UK and European Registries will provide internal comparisons. The North American Registries use as a control group, women evaluated for pregnancy outcome at a large hospital in Boston, and have started to collect data on a control group. The North American Registry has now reported a significant increase in major malformations for two drugs used as monotherapy: phenobarbital and valproate. The UK registry has reported an excess rate of malformations for cases exposed to valproate monotherapy. The European registry at present has insufficient follow up to provide information. Despite differences in recruitment strategies and follow up methodology, data suggest similarity in findings. The proportion of cases on the newer drugs remains low for each registry, and reliable information for these compounds may be slow in coming.

**Ketogenic Diet Participatory Roundtable****Thomas Seyfried, M.D.**

The theme for this year’s participatory roundtable on the Ketogenic Diet (KD) was “Biomarkers for Efficacy in Humans and Animal Models.” Although the high-fat, low-carbohydrate KD is effective in managing intractable seizures in many children and

in some adults, biomarkers for its efficacy have not been well established. A better understanding of relevant biomarkers could be used to assess efficacy and possibly to develop new drug therapies that mimic the anti-epileptic action of the diet. Dr. Patti Vining, from Johns Hopkins, discussed problems associated with KD implementation in the clinic and raised questions as to what role body weight reduction, caloric restriction, and shifts in serum lipids might have in providing seizure management. Elizabeth Thiele, M.D., Ph.D., (Massachusetts General Hospital) presented evidence that glucose has an important role in managing seizures with the KD. She also presented a provocative hypothesis that KATP channel modulation, associated with changes in glucose and ketone bodies, may contribute to the antiepileptic effects of the KD. Charles Niesen, M.D., Cedars-Sinai Medical Center, related seizure control with the KD to clinical findings on acidosis and chloride concentrations. Thomas Seyfried, Ph.D., (Boston College) showed that seizures could be effectively managed in epileptic EL mice with either a standard high-carbohydrate diet or with the KD as long as the diets were given in restricted amounts in order to lower body weight and glucose levels and to elevate ketone bodies. Finally, Dr. Stephen Cunnane, University of Toronto, was unable to attend due to the blizzard conditions that accompanied the early part of the meeting.

**Genetics****Daniel L. Burgess, Ph.D.****Nanda Singh, Ph.D.**

The inaugural meeting of the Genetics SIG at the AES Annual meeting in Boston was a great success, bringing together researchers working on a diverse array of topics related to inherited seizure disorders. To encourage active participation and discussion, we conducted a mini poster session with a small group of experts reviewing topics of particular relevance to the study of epilepsy genetics. Melodie Winawer, M.D., M.S., (Columbia) described modern approaches to analyzing complex inherited epilepsy syndromes in humans; Peter Crino, M.D., Ph.D., (University of Pennsylvania) presented exciting concepts addressing the role of non-inherited somatic mutations in epilepsy; Wayne Frankel, Ph.D., (The Jackson Laboratory) presented the latest on

*Continued on page 15*

**SIGnals***(continued from page 14)*

screening and characterization of new mouse epilepsy mutants; Robyn Wallace, Ph.D., (UT-Memphis) provided an update on the Epilepsy Database for Genetics, or "EDGE," that she is developing as a resource for data on seizure associated mutations; Cara Schmitt (Epilepsy Foundation) presented the latest information on the Gene Discovery Project, an interactive Web-based program that provides an opportunity for families to become directly involved in the search to find epilepsy genes. Nanda Singh, Ph.D., (Utah) reviewed the current internet resources that have become almost indispensable for modern genetic research in epilepsy. Dan Burgess, Ph.D., (Baylor) summarized all of the genes that are currently known to be mutated in humans with inherited epilepsy or in mouse seizure models. Several attendees provided positive feedback about the poster format, which provided ample opportunity to gather in small groups with experts and discuss a topic extensively without feeling rushed, and we anticipate incorporating this concept into future gatherings of the Genetics SIG.

**Surgery – 2003 Annual Meeting***Steven Roper, M.D.*

The Surgery Special Interest Group session was held at the 2003 Annual Meeting of the American Epilepsy Society. It was very well attended, proving that neurosurgeons don't let natural disasters and other acts of God interfere with their travel plans. A series of cases were presented to the group that attempted to elicit discussions about the conceptual boundaries of surgical therapy for intractable epilepsy. The presentations were thought provoking and were followed by lively discussions from the entire group. A wide-ranging spectrum of topics included the value of the Wada test in predicting post-operative outcome after anterior temporal lobectomy, optimal invasive recording strategies for temporal lobe epilepsy, best therapy for hypothalamic hamartomas, serial resections for tuberous sclerosis, and resection of the insula and basal ganglia in hemispherectomy. The organizer would like to thank the presenters as well as the attendees who provided their insightful comments during the group discussions. We look forward to another provocative and interactive session next year.

**Nursing***Susan O. Smith, M.S., ANPC  
Linda Goldenberg, NP*

Despite the Nor'easter storm, spirits remained, high at the 2003 AES Annual Meeting in Boston. The nursing focus group was exceptionally well attended. This year, 75 APN's and RN's enjoyed presentations on pseudo seizures. Those who attended earned 1.8 contact hours from AACN. The content focused on identifying psychogenic seizures and how best to communicate the diagnosis to patients and their families. Actual long-term monitoring video was utilized to demonstrate and differentiate actual electrical seizures from psychogenic events. Patient education tools for pediatric patients and their families coping with a new diagnosis of epilepsy prompted multiple questions and interaction among participants. As promised, complex case studies were presented to challenge the audience's diagnostic and patient management skills. Ideas for next year include epilepsy and pregnancy. We will offer contact hours again next year. An attempt to arrange a session for informal networking is also being considered. If you are interested in presenting or have topic suggestions, please contact [susan\\_smith@urmc.rochester.edu](mailto:susan_smith@urmc.rochester.edu) or [Lgoldenbergs@sbhcs.com](mailto:Lgoldenbergs@sbhcs.com) and include your abstract.

**Translational Research***Orrin Devinsky, M.D.*

The first Translational Research SIG reviewed processes and opportunities to advance basic science research toward new therapies. Academic laboratories rarely initiate AED development. How do we catalyze collaborations between academic institutions and industry? Academics need to identify ideas that may translate to compounds, devices, or molecular therapies and collaborate with business experts. A business analysis of developing a company to screen potential AEDs with sophisticated, predictive assays was presented. These low through-put assays could also investigate anti-epileptogenesis and analgesic effects. Current models do not show that novel assays provide a financially viable business, but there may be other approaches to support the development of more sophisticated assays. Funding opportunities from

the Epilepsy Project ([epilepsyproject.com](http://epilepsyproject.com)) for translational research were discussed. In addition to these grants, the Epilepsy Cure Project also has commercialization grants (to support business development of epilepsy therapies) and scientific and business advisory boards that can provide expertise to researchers. Business development considerations for new AED startup companies include differentiated products, ability to partner with big pharma, niche market and sales strategy, and profitable exit strategy. Challenges include complex science (e.g., multiple interacting genes), need for significant funding for drug development, and regulatory and market issues.

**Neuroendocrinology and Epilepsy:  
The Effects Of Testosterone On  
Brain Excitability***Cynthia L. Harden, M.D.*

We were fortunate to have a group of renowned basic scientists present at the SIG this year to discuss the emerging information about the effects of testosterone on seizures. Drs. Doodipali Reddy, Ph.D., Cheryl Frye, Helen Scharfman, Ph.D., and Neil McLuskey presented work that was, although via differing experimental approaches, surprisingly convergent. Blocking the conversion of testosterone to estrogen by aromatase inhibition confers some antiseizure effect to experimentally delivered testosterone. However, testosterone has several metabolites, and finding the most potent antiseizure metabolite was the goal of much of the research. The reduced metabolite, 3-alpha androstenedione, was isolated as the most important of these metabolites for seizure inhibition. The 3-alpha metabolite is strikingly similar to the reduced metabolite of progesterone, allopregnanolone. Although it is known that allopregnanolone is anticonvulsant through its action on the GABA receptor, the site of action of this important testosterone metabolite is still under investigation, but may also be at the GABA receptor. Approaches to translating this research to clinical practice in men with epilepsy was also discussed and some preliminary work using aromatase inhibitors in men with epilepsy was presented. This SIG discussion was ground-breaking and furthered the discussion on the relevance of neurosteroids in epilepsy.

**American Epilepsy Society**

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**2004 EPILEPSY CALENDAR OF EVENTS**

*April 24-May 1*  
**American Academy of  
Neurology's  
56th Annual Meeting**  
San Francisco, California  
[www.aan.com](http://www.aan.com)

*May 30-June 3*  
**6th European Congress on  
Epileptology (ILAE)**  
Vienna, Austria  
[www.epilepsyvienna2004.org](http://www.epilepsyvienna2004.org)

*July 2-5*  
**3rd Latin American Epilepsy  
Congress (ILAE/IBE)**  
Mexico City  
[www.epilepsiamexico2004.org](http://www.epilepsiamexico2004.org)

*August 28-31*  
**5th Asian & Oceanian Epilepsy  
Congress (ILAE/IBE)**  
Bangkok, Thailand  
[www.epilepsycongress.org](http://www.epilepsycongress.org)

*July 10-14*  
**4th Forum of European Neuro-  
science**  
Lisbon, Portugal  
[www.fens.org](http://www.fens.org)

*July 11-21*  
**Epilepsy in Children:  
Neurobiological, Clinical and  
Therapeutic Approach**  
San Servolo, Venice, Italy  
[www.epilepsy-academy.org](http://www.epilepsy-academy.org)

*October 7-10*  
**IV Congress Latin American of  
Neurophysiology of IFCN**  
Santiago, Chile  
[www.sochineurofisiol.cl](http://www.sochineurofisiol.cl)

*October 23-27*  
**Society for Neuroscience 34th  
Annual Meeting**  
San Diego, California  
[www.sfn.com](http://www.sfn.com)

*November 18-20*  
**8th Mediterranean Epilepsy  
Meeting**  
Marrakesh, Morocco  
[epimed2004@menara.ma](mailto:epimed2004@menara.ma)

*December 3-8*  
**American Epilepsy Society's  
58th Annual Meeting**  
New Orleans, Louisiana  
[www.aesnet.org](http://www.aesnet.org)

For the latest additions to the Epilepsy Calendar of  
Events, visit [www.aesnet.org/calendar/index.cfm](http://www.aesnet.org/calendar/index.cfm).