The vibrant city of San Antonio, TX welcomed the 64th Annual Meeting with typical Texas hospitality. The weather was warm, with the temperature hitting 80 degrees on the second day, the newly refurbished Henry B. Gonzalez Convention Center was bright and comfortable, and the locals were friendly and helpful. Despite having to cross a river to get almost anywhere, meeting attendees were generally satisfied with the location.

Attendance broke another record with approximately 4,300 registrations. A little more than half the attendees were AES members and from the U.S. So a significant number of attendees are non-members and from other countries. The Membership Committee is looking at ways to encourage more of these meeting attendees to become members. Sixty-two different countries were represented at the meeting including Costa Rica, Croatia, Egypt, Iceland, Jamaica, Kuwait, Nigeria, Russia, South Africa, Uganda, Ukraine and Uruguay. The location of the meeting in Texas helped increase representation from South and Latin American Countries. Physicians still make up the largest percentage of attendees, but they are only 40%. Other specialty groups such as basic science researchers, nurses, nurse practitioners, physician assistants, pharmacologists, psychologists, psychiatrists, veterinarians and others make up the rest of the group.

Attendees were kept busy with 14 lectures and symposia, 15 Investigators’ and Clinical Investigators’ Workshops, 38 Special Interest Groups, 27 Platform Sessions and 1,146 Posters. The new poster tours were a tremendous success, thanks to the organizer and Scientific Program Chair, Jose Cavazos and committee member Peter Crino, M.D., Ph.D. Large crowds followed the fifteen tour leaders over the three Poster Sessions. The lunch break on all three days was dedicated to poster presentations, with no other programming or activities allowed. The Exhibit Hall showcased 107 commercial and non-profit exhibit booths and hosted lunch and snack breaks each of the three days. New this year, were the Product Training Pavilions in the Exhibit Hall where companies had an opportunity to talk about their products to groups. This was in addition to the Scientific Exhibits which were elsewhere in the Convention Center to feature new and up and coming research of commercial entities.

During the meeting, the Society honored several members for their research and service. The Epilepsy Research Recognition Awards are considered the most prestigious prizes for research in epilepsy. AES gives two of these awards annually to active scientists and clinicians (continued on page 8)
FROM THE PRESIDENT

I am honored to have the opportunity of serving you as president of the American Epilepsy Society and humbled as I look back on my predecessors. This is actually the third year of my four-year commitment to AES leadership and it's been a busy three years. We have accomplished an amazing amount of work over the last few years thanks to the excellent leadership of Steve Schachter and Jaideep Kapur. The Society continues to evolve to meet its mission and Strategic Plan. We need to continue to remind ourselves that we are the preeminent body for epilepsy education – this is our most important product.

My goals for the coming year include keeping the Society’s core principles moving forward every day using the Strategic Plan to guide activities as well as identifying and promoting young leaders. These activities will help us continue to be a leader in epilepsy education and research.

One exciting project that the Board has been overseeing is the Institute of Medicine (IOM) Report on Epilepsy. This has been a year-long effort already and has another year or more to go. Frances Jensen has been efficiently guiding this project through the Vision 20-20 Committee and with the assistance of Margaret Jacobs. The support and cooperation of the patient advocacy groups participating has been amazing. Even the IOM is impressed by how quickly and efficiently we get things done with such a large group of stakeholders.

To help guide the Society and ensure transparency, several Board Committees were created. Each board member serves on one or two of these committees. The Committees may have non-Board volunteers as well. The Budget and Audit Committee is responsible for understanding the budget process and working with staff to monitor the budget throughout the year. In addition, they are responsible for reviewing the annual audit. The Governance Committee’s responsibility is to function as the mechanism for feedback between board and committees and to ensure that committee charges relate to the Strategic Plan. The last Board Committee is the Conflict of Interest Committee which has worked for the last year or two to create an overarching COI policy for the Society. This committee may be moving into a Standing Committee with some representation from the Board. You can see the members of these committees listed on the AES website under Committees.

Our recent Annual Meeting was a tremendous success. Over 4,300 people from 62 countries, attended in San Antonio, including 525 residents, students and fellows. We instituted an Ambassador program during the meeting. Some volunteers worked with the Membership Committee and talked to non-members about AES as well as assisted with introducing members to the new Professional Connections website. Another group, led by Jack Parent, helped direct poster attendees, provided feedback on non-CME sessions and answered attendee questions. I’d like to thank all these volunteers for their efforts. Preparations are already well underway for the 2011 Annual Meeting in Baltimore, which will celebrate the Society’s 75th Anniversary.

There is a bright new future for Epilepsy Currents now that we are self-publishing. I have created a Task Force to decide how it will grow and what resources are needed. Changes that have already been made include a new cover and fresh formatting inside. The Senior Editors are launching a Letters section and will announce a policy on Conflict of Interest in the first issue. I look forward to the continued evolution of our official journal.

I am a firm believer that it is important that all opinions are heard. I welcome your input and active participation in the Society. Feel free to contact me directly at jpellock@mch.vcu.edu with any questions, suggestions or ideas.

All in all it is lining up to be an eventful year at AES. I look forward to the challenges and will do my best to keep you up to date with unfolding events.

John M. Pellock, M.D.
An Interview with Elson So, M.D.

Dr. Elson L. So is currently Professor of Neurology and Director of Electroencephalography at the Mayo Clinic College of Medicine. Dr. So has served on the professional advisory boards of the national Epilepsy Foundation and the Epilepsy Foundations of Wisconsin and Minnesota. He is the Past Chair of the Section of Clinical Neurophysiology of the American Academy of Neurology. He serves on the editorial board of Epilepsy Research, and on the Council of the American Clinical Neurophysiology Society. His research interests are in advanced SPECT imaging, SUDEP, and electro-clinical aspects of intractable epilepsy. Dr. So has just completed a three-year term on the AES Board of Directors and is currently chairing the SIG Oversight Committee. He has served as Chair of the SUDEP Task Force along with serving on other committees and task forces for AES.

Q Why did you join AES?
A I joined after completing my fellowship in 1981 and have been a member and attending the Annual Meeting regularly for 30 years. My mentor was Dr. Kiffin Penry, who was very active in AES and served as president. I learned about the Society from him. He encouraged and expected me to be a member one day.

Q What is the biggest benefit of membership?
A As a neophyte, I thought membership was simply an affirmation of my identity as an epileptologist and access to the ‘big boy’ club. Then I found that being a member helped me better understand the issues faced by persons with epilepsy. Talking to colleagues from different specialties and disciplines at the Annual Meeting gives me a different perspective than I would have from just my practice. I come home from the Annual Meeting with a different sense of what the real issues are that are affecting my patients. In addition, the Society and the Annual Meeting keep me up to date with the latest clinical and scientific information. Lastly, membership allows me to be part of a bigger mission and movement to serve epilepsy patients. I encourage others to join because of the opportunities to learn and participate in something bigger. The Society opens doors that you don’t have access to in a practice setting.

Q What committees have you been involved in?
A I chaired the SUDEP Task Force which was a partnership of AES and the Epilepsy Foundation; served on the Practice Committee, the Conflict of Interest Committee and just rotated off as a member of the Board of Directors. I was fortunate to have the opportunity to have a leadership role on the SUDEP Task Force. The interest in SUDEP has increased over the last decade and the Task Force played an important role. One result of our efforts was an NINDS workshop which involved professionals outside of neuroscience. The Task Force is now a coalition and many organizations dedicate research funding to SUDEP. Recently there are more studies and papers in this area. I am gratified to have been part of the team and helping to make SUDEP more visible within the profession and the community.

Q As a new volunteer what were your expectations?
A Early on I had the impression that things take a long time to get done in AES Committees and on the Board. When I got involved, I was surprised to find how fast and efficiently projects are actually done.

Q What have you learned as a volunteer and how have you applied that knowledge?
A It took me a while to really understand the strategic planning process, but now I use it to plan for the next five years for my EEG lab. This process has helped my work.

Q What are you most proud of from your board term?
A I found that there is no issue that appears to be single sided. Even if we end in a unanimous decision, there is always discussion.

Q What are you most proud of from your board term?
A I am gratified to know that I was part of the team that put together the Conflict of Interest principles and helped guide the implementation. There is still work to be done.

Q What do you feel you have contributed to the Society?
A I am happy to have had the opportunity to contribute through teaching courses. I also helped lay the foundation for the COI policies and helped with the Strategic Plan.

Q What are the biggest challenges facing the AES?
A The biggest challenge is shrinking resources. We need to convince the community that AES is the leader in translational science, with highly probable translation of research to benefit patients. This will bring us into relevance in the community and this can be done with partnering.

Another challenge is to ensure that members have opportunities to do research. There is no question that research and publication have reached a more level playing field globally. The competition encourages Americans to do better. Fifteen to twenty years ago there were few articles written by authors from outside the U.S. Major journals now easily contain 15-40% articles written by authors from outside the U.S. This is as it should be. This means we have to keep pace in leadership of scientific studies.
The American Epilepsy Society installed the 2011 Board of Directors at the 64th Annual Meeting in San Antonio. Pictured here are the combined 2010 and 2011 Board, ex-officio members and staff.

What Do New Members Think?

The Membership Committee conducted a poll of new members during the month of January. The survey was sent to those who joined between January 1, 2010 and January 24, 2011. Ninety-five of the possible 507 respondents, or 18%. Forty-three percent of the respondents joined as Junior Members. The Junior Member category is for people who are still in training. The next biggest group was Active Members which made up 23% of the respondents. This is the most common member type. (For a detailed definition of the available member types, go to http://www.aesnet.org/go/membership/membership-information. Eighty-one percent of new members responding report that they attended the 2010 Annual Meeting and 55% report that they are planning to attend the 2011 meeting in Baltimore.

The Committee was interested to find that 63% of the respondents paid for their membership out of their personal funds, while the institution or company paid for 33%. Add that to the information that 80% of respondents belong to one or more other professional organizations as well, and the Committee concludes that this is an active class of members.

When asked about the website, 34% of respondents stated that they frequently visit the AES website, while 54% visit it occasionally. Those that had recently visited the website (58%) reported that they were looking mostly for Annual Meeting information including abstracts, CME and program details. When asked what they would like to see on the website, several indicated guidelines and other resources as well as networking opportunities. Yet when asked if they would use the new Professional Connections part of the AES website only 16% expected to do so often, while 48% thought they’d use it occasionally.

Even though this group has held membership for a year or less, they were asked if they felt that the membership had contributed to their career development. Almost half of the respondents reported that they felt that membership had helped them through education and networking opportunities. When asked why they joined AES the majority indicated that they thought it would be beneficial to their careers. It looks like it already is for many of them.
AES Raises $392,000 for Research and Training

In the last few months of 2010, AES launched **Building for the Future: The Campaign for AES**. Because of the generosity of members, corporate sponsors, two bequests, and participation in the Epilepsy Foundation Walk, AES raised nearly $392,000 to support education, training and research grants in epilepsy. If you gave to AES in 2010 — thank you for playing a part in reaching this major milestone.

“Through the generosity of its supporters, we passed our 2010 goal of $200,000,” reports Dennis Spencer, Chair of the Development Committee. “This demonstrates that the Society can raise money to deliver on the only two remedies we know of in the fight against epilepsy – more research and bringing new talented professionals into the field.

AES has taken up this mission of fundraising because we are facing a new reality — funding sources that we once relied on for research and training grants are now no longer available. By some accounts, epilepsy has lost as many as 10 fellowships and training grants.

AES is working to regain some of these lost training opportunities. This year AES awarded $335,000 in training grants including the new Susan Spencer Clinical Research Fellowship. In addition, AES gave out research and workshop grants totaling $137,500. Your generous support has enabled AES to continue long-standing grant programs and expand them.

In celebration of AES’s 75th anniversary AES has set a very ambitious goal of raising $750,000 for 2011. This is an attainable goal if every member plays a role. Joining in this effort does not take huge contributions or major efforts. In fact, there are some everyday things that can really add up to make a difference for AES:

**Form a walk team at the Epilepsy Foundation Walk in March** – Last year, AES received nearly $17,000 from team Yale’s efforts at the Walk. Through a partnership with the Epilepsy Foundation, AES members and teams can designate that all donations go to the AES. Several members have taken the challenge this year and AES will be represented by the AES, New England, Yale and Virginia teams in the Epilepsy Foundation walk in March. It’s easy to create a team, and it’s not difficult to enlist members. And the good news is, you don’t even have to walk. You can create a team, secure donations for AES and be a virtual walker: You even get the T-shirt!

**Turn Your Travel Into Research** – AES has a new service for members that lets you take advantage of great travel prices while supporting research and training. Visit www.ytbtravel.com/aesociety for more information. This website is powered by the same websites you normally use to book travel like Travelocity, Hotels.com and Cheaptickets.com — you get the same great features and low prices. How does this work? Every time you use a travel website, the travel companies pay BIG commissions for your reservation. Now, when you book travel on our website, AES will get a portion of the travel commission. You’ll experience competitive travel prices while significantly helping fund research and training. Every bit helps.

**Give Your Honorarium** – When you receive honoraria for speaking at various symposia and institutions, you can save yourself the headache of the paperwork and IRS filings by simply asking your host organization to donate your honorarium to AES. It is usually as easy as giving your host organization AES’s tax ID number (04-6112600) or Lennox and Lombrosa Trust’s Tax ID number (23-7054757). Make sure to have the organization note that you are giving the gift so that you will get the tax credit, or notify the AES office that you have done this so that the office will watch for your gift.

**Have an Anniversary or Birthday Coming Up?** – If you don’t want any gifts, why not have your family and friends give to AES in your honor? We will acknowledge them and you.

**Watch your mail and email appeals** – Just like public radio appeals — the more people who respond right away, the fewer appeals we have to do. Please watch your mail and e-mail for AES 2011 appeals and be as generous as you can.

**Join AES’s fund raising efforts** – The Development Committee is open to new ideas, new members and anyone interested in helping AES reach its goal of expanding research and training.

“We can be proud of what we have accomplished in 2010,” Dr. Spencer states. “We have been successful because generous members have stepped forward to underwrite our mission to promote research and education for professionals dedicated to the prevention, treatment and cure of epilepsy.”

Philanthropic support for the work of AES is critical to maintaining our position as leaders in research, treatment, training and professional development. Please make a gift today by sending a check to AES or by visiting the AES online giving page at www.AESNET.org.

**65th Annual Meeting**

December 2-6, 2011

Baltimore, MD

**Committed to Research, Education & Training**
In October 2004, the American Epilepsy Society coordinated a meeting of the then-existing epilepsy organizations (AES, CURE, EF, FACES, NINDS and PACE)* on the state of epilepsy research. The original purpose was to review funding resources and determine if combining certain research activities would be possible and desirable. From that meeting emerged “Vision 20-20”, a forum for epilepsy research, governmental, and voluntary organizations to come together to explore ways of identifying common goals.

The first activity was to produce a section on the AES website called Resources in Epilepsy Research (RER) (http://www.aesnet.org/erc/index.cfm), an online database of epilepsy funding opportunities with a comprehensive listing of initiatives, application instructions and an inventory of currently-funded research. The organizations update the information themselves, and the site is promoted to researchers.

The group has continued to meet at the AES Annual Meeting since 2004, with interim phone conferences and additional in-person gatherings. These intervening years have also seen the emergence of a number of new epilepsy organizations with different foci, but with the overall mission of improving the lives of patients and their families. These efforts have been good for the epilepsy community. However, in times of dwindling support, coordination and collaboration have become even more critical to assure that resources are used as efficiently and effectively as possible. Therefore, from the initial six organizations, Vision 20-20 has grown to include twenty groups.* The purpose has also expanded from reviewing funding resources to discussing the missions and goals of each organization and developing projects that can be accomplished more efficiently together than if the groups functioned separately and autonomously.

The major achievement of Vision 20-20 thus far has been the commissioning of the Institute of Medicine (IOM) Report on Epilepsy. The Institute of Medicine is one of four organizations (National Academy of Sciences, National Academy of Engineering, National Research Council, and IOM) that comprise the National Academies. Established by Congress in 1863, and signed by President Lincoln, the National Academies is a non-governmental institution that brings together individuals with a variety of scientific and technological expertise to address issues considered of national importance. Each panel is comprised of approximately 10-20 members, investigates what exists on a chosen topic, and makes recommendations as to what can and should be done. Based upon available scientific evidence, testimony by members of the scientific community and the public, the panel develops a report of its findings, conclusions and recommendations. The resulting reports are highly regarded and often are used to guide policy.

Vision 20-20 has been the vehicle by which the epilepsy volunteer community has become involved in the IOM process. Eleven of the organizations (including AES) made financial contributions enabling us to become sponsors and have a “place at the table”. NINDS is the major governmental funding agency, with contributions from other NIH and HHS institutions. The process is expected to take approximately 20 months, with the final report to be released in May 2012. It will have more of a public health than biomedical emphasis since it was felt that function was being covered by NINDS, especially through the Epilepsy Research Benchmarks. The IOM staff has expressed amazement at the support and interest from the epilepsy community and has indicated they have never had this number of sponsors for a report!

In addition to IOM and RER, the need to develop a “common message” about epilepsy has emerged as an important focus of Vision 20-20, with the intent of identifying specific points the organizations want researchers, clinicians, and the general public to know about epilepsy. Encouraging patients and community clinicians to participate in research, establishing epilepsy rare disease networks, and monitoring the impact of healthcare reform are other directions Vision 20-20 is pursuing.

As the coordinating organization, AES believes that, more than ever before, it is critical for the epilepsy community to work together and explore the ways to capitalize on our common strengths toward the goal of curing epilepsy.

Future newsletter articles will highlight the participating Vision 20-20 organizations.

*Vision 20-20’s participating organizations:
American Epilepsy Society (AES); The Anita Kaufmann Foundation; Centers for Disease Control and Prevention (CDC); Citizens United for Research in Epilepsy (CURE); Epilepsy Foundation (EF); Epilepsy Therapy Project (ETP); Finding a Cure Against Epilepsy and Seizures (FACES); Health Resources and Services Administration (HRSA); Hemispherectomy Foundation; Hope for Hypothalamic Hamartomas (HH); International Dravet Syndrome Epilepsy Action (IDEA) League; International League Against Epilepsy (ILAE); Intractable Childhood Epilepsies (ICD) Alliance; Lennox-Gaustaut (LGS) Foundation; National Association of Epilepsy Centers (NAEC); National Institute of Neurological Disorders and Stroke (NINDS); Parents Against Childhood Epilepsy (PACE); Rasmussen’s Encephalitis (RE) Children’s Project; Seizure Tracker; Tuberous Sclerosis (TS) Alliance
Walk for Epilepsy on Sunday, March 27!

By Chris Merritt, Director of Communications

The National Walk for Epilepsy is the largest awareness event for the epilepsy community and our 5th year promises to be the most exciting ever! It will take place on Sunday, March 27 on the National Mall in Washington, D.C. We hope to surpass all previous records for attendance and fund-raising. We need you to be there and participate.

The Walk, sponsored by the Epilepsy Foundation, is slightly more than two miles and winds throughout the monuments and museums on the National Mall. Over the past four years, the Walk has engaged 25,000 participants including Hollywood celebrities, sports stars and award-winning musicians. The Walk has raised over $4 million to support the fight to stop seizures, find a cure and overcome the challenges created by epilepsy.

Be a Walker!

What’s not to love? An exciting day in Washington, D.C. during its famed cherry blossom season, a non-competitive walk, inspiring opening ceremony, music, guest speakers, and more, all while raising awareness and funds for epilepsy. Be a walker and get your photo on the AES website. If you can’t walk in person, sponsor someone who is or be a virtual walker.

Virtual Walkers

Can’t make it to D.C.? No worries! “Walk” from your computer. Sign up as a virtual walker at walkforepilepsy.org.

Participants with Epilepsy

This is a chance to show the world that epilepsy matters — it matters for you, for your patients, for anyone you know who has epilepsy. People with epilepsy can receive a purple Walk T-shirt (instead of a white shirt) that will let everyone know they have epilepsy and they are not ashamed! Just let us know if you’d like free brochures or posters about the Walk for your office or your institution.

Be a Part of TEAM AES!

AES has its own team for the Walk and we hope you will be a part of it. Sign up to be a walker or a virtual walker. One of the best things about the National Walk for Epilepsy is that the funds TEAM AES raises come back to AES to fund research jointly with the Epilepsy Foundation! In past years, the AES contingent has been front and center and last year raised the most money of any group attending.

As you are well aware, not enough people know that epilepsy affects millions of people, thus it garners only a fraction of the funding of other conditions. When you join us for the National Walk, you’re helping get closer to a cure for epilepsy and seizures. Help make our 5th Annual Walk the best yet!

www.walkforepilepsy.org
working in all aspects of epilepsy research. The awards are designed to recognize professional excellence reflected in a distinguished history of research or important promise for the improved understanding, diagnosis and treatment of epilepsy.

Douglas A. Coulter, Ph.D. of Children’s Hospital of Philadelphia, received the 2010 Basic Science Investigator Award on December 5, 2010 during the annual Presidential Symposium. Tracy A. Glauser, M.D. of Children’s Hospital Medical Center, Cincinnati, OH, received the 2010 Clinical Investigator Award. Drs. Coulter and Glauser also had the honor of presenting Keynote Addresses about their research during the Annual Meeting.

Prof. Simon D. Shorvon of UCL Institute of Neurology, London, UK, proudly accepted the Society’s most prestigious professional award from President Jaideep Kapur, M.D. The William G. Lennox Award is funded through the Lennox & Lombroso Fund Trust for Epilepsy Research and Training and was established to recognize members of the Society, usually at a senior level, who have a record of lifetime contributions and accomplishments related to epilepsy.

The 2010 J. Kiffin Penry Excellence in Epilepsy Care Award was also presented during the Annual Meeting. Andres M. Kanner, M.D. of Rush University Medical Center; received this recognition on December 4th. The award, presented by President Jaideep Kapur and Penry Award Subcommittee Chair, Cynthia Harden, recognizes his lifelong focus on and genuine concern for the patient with epilepsy as well as having a major impact on patient care and improving the lives of persons with epilepsy.

Dr. Gregory K. Bergey received the AES Service Award on December 4th from President Jaideep Kapur and Service Award Subcommittee Chair, Samuel Wiebe. This award recognizes an AES member who provides outstanding service in the field of epilepsy and exemplary contributions to the welfare of the AES and its members.

Nominations for these awards are solicited by the Research Recognition Award Committee during the summer. Nomination packages are reviewed early in the fall and the awardees are selected based on a list of criteria. The process for nominating can be found on the website at http://www.aesnet.org/go/research/research-awards.

In addition, the Board of Directors decided to recognize a member of the Society and a partner in our advocacy and outreach efforts with the Extraordinary Contributions to the Field of Epilepsy Award. The award recognized the inexhaustible efforts of this individual for patients, fundraising for research, advocacy activities locally and nationally and for her contributions to the Vision 20-20 effort allowing communication and coordination among epilepsy patient advocacy groups. Ms. Susan Axelrod accepted the award during the Annual Meeting.

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The Council on Education, the Annual Meeting Committee and staff are reviewing your feedback submitted through the Medical Education Evaluator: Keeping in mind that there are some things that can’t be changed, your ratings and comments are reviewed and analyzed each year and are considered in the planning of coming years. As of January 10th, 544 meeting attendees completed the online evaluation.

The vast majority completing the online evaluator are clinicians, so this year a separate online evaluation was launched for the non-CME activities. This included the Investigators’ Workshops and the SIGs. In addition, a team of volunteer Ambassadors provided feedback on non-CME activities during the meeting.
Neurostimulation: Breaking News in Neurostimulation

James W. Wheless, M.D.

The 2010 AES Neurostimulation SIG attracted 350-400 people. The audience listened as experts in the field discussed breaking news in the use of neurostimulation as a treatment for epilepsy. Dr. Douglas Labar, Director of the Division of Neurophysiology at Weill-Cornell Medical Center in New York City began by discussing the results of anterior nucleus of thalamus (DBS) stimulation. He initially presented the results of the FDA panel hearing held in March 2010 in which they approved by a vote of 7 to 5 the device, but the full FDA wanted more data. He reviewed the study design and the primary efficacy analysis that was performed at the end of the double blind phase. He discussed the results of the trial and the interpretation of these by the FDA that has led to the FDA not issuing a complete response letter for the device in the United States, and has led to an approval letter in Europe. He reviewed the alternative analysis of the studies that were done and the statistical techniques that were performed. In addition to reviewing the efficacy, he also reviewed the adverse effects, specifically commenting on depression and memory as these were concerns of the FDA. He reviewed the data in the study that these were pre-existing for most of the patients that had complaints, for others they were not verified by neuropsychologic testing. By the end of his presentation, he had thoroughly reviewed the efficacy and the adverse effect profile, the reasons that he felt as though the device was efficacious and the concerns the FDA had, and why they differed in opinion.

His presentation was followed by Dr. Martha J. Morrell, Chief Medical Officer of NeuroPage and Clinical Professor of Neurology at Stanford University. She reviewed responsive brain stimulation for treatment of medically intractable partial epilepsy in adults: results of the RNS System pivotal investigation in epilepsy. She began by reviewing responsive neurostimulation as a treatment for refractory epilepsy. She reviewed the data in the study that these were pre-existing for most of the patients that had complaints, for others they were not verified by neuropsychologic testing. By the end of his presentation, he had thoroughly reviewed the efficacy and the adverse effect profile, the reasons that he felt as though the device was efficacious and the concerns the FDA had, and why they differed in opinion.

Joseph I. Sirven, M.D.

The Quality and Value Indicators SIG met on Sunday, December 5 from 6:00 p.m. – 7:30 p.m. There was an attendance of approximately 60 individuals and there was a considerable number that stayed even after the presentation to discuss the issues with the faculty after the end time. The presenters at this SIG included Dr. Richard Zimmerman from Mayo Clinic in Arizona; Dr. Nathan Fountain from University of Virginia; and Dr. Sandra Helmers from Emory University. This SIG began with Dr. Helmers presenting how the new health care law would impact the practice of epilepsy in the United States. She laid out the argument for patient-centered research and discussed other issues as it pertained to epilepsy care. Dr. Zimmerman spoke next about translational projects for individuals wanting to utilize the eight quality metrics and what projects one could potentially construct in order to translate these measures into measurable outcomes. Lastly, Dr. Nathan Fountain presented the unveiling of the first performance in practice module for epilepsy as devised by the American Academy of Neurology. There was spirited discussion and debate regarding several of the measures and how most of these measures were process measures and not true outcome measures. At the end, constructive thoughts about how to create larger research projects relating to these eight measures were outlined. In sum, despite it being scheduled against AES dinner events, the SIG continues to thrive.

Clinical Nursing

Madona Plueger, M.S.N., RN, CNRN, ACNS-BC

The Clinical Nursing SIG met on Tuesday, December 7. There were over 30 nurses in attendance, all eager to be part of a discussion on the steps that need to take place to work toward an official certification in Epilepsy Nursing. The objectives of the SIG were met by three dynamic speakers, Jan Buelow, RN, Ph.D., Karen Gilbert; ANP, and Patricia Dean; PNP who shared their views on this topic. Those in attendance were given some initial information on literature review, process measures and current day to day practice in both the adult and pediatric epilepsy patient populations. The audience was then able to

(continued on page 11)
articulate the need for some baseline nursing competencies and several in attendance shared their passion for being recognized in their chosen field – epilepsy. The group discussed next steps, and current gaps. Patty Osborne Shaffer was in the audience; she and Madona Plueger shared the grassroots work that was being done with the EMU Safety content group, as well as the Resident Education Subcommittee’s nursing education modules being created. Attendees left their contact information with Madona Plueger as potential reviewers of future content. The meeting closed with a summary of discussion held and next steps to take place toward eventual defined Epilepsy Nurse Certification. The modules being formed will include nursing competencies in different areas of nursing and will be part of the initial steps as we move forward. Those in attendance suggested ongoing information being shared at the Annual Meeting, as well as sharing information about what members of the American Epilepsy Society are attempting to define at the American Association of Neuroscience Nursing. Those in attendance who were not AES members were encouraged to join.

**Pediatric Case Discussions**

Elaine Wyllie, M.D.

The Pediatric Case Discussions SIG, chaired by Dr. Elaine Wyllie of Cleveland Clinic, drew a large and lively audience — even during the final time slot of the last day of the meeting! Test yourself with the following vignettes, and be sure to join in for more terrific cases next year!

1. Dr. Elaine Wirrell of Mayo Clinic presented a 17-year-old boy with worsening generalized epilepsy, developmental regression, gait ataxia, sleep disturbance, progressively enlarging jaw, consanguinous parents. Studies included low CSF 5-methyl-tetrahydrofolate with normal serum folate. Did the epileptic encephalopathy and generalized EEG changes resolve after left temporal resection?

2. Dr. Elaine Wyllie of Cleveland Clinic presented a 10-year-old girl with left temporal lobe epilepsy starting at 4 years of age, left temporal malformation on MRI and PET, with seizures since age 7 on antiepileptic medication. She developed severe epileptic encephalopathy at 8 years old with emergence of generalized slow spike wave complexes and ESES on EEG. Did the epileptic encephalopathy and generalized EEG discharges resolve after left temporal resection?

3. Dr. Tove Halbrook from University of Gothenburg presented a 5-year-old boy with medically refractory generalized epilepsy, developmental regression, hypotonia, and movement disorder. After a six-hour fast, his CSF glucose was 34 mg/dl and his blood glucose was 79 mg/dl (ratio 0.42). Genetic testing showed a heterozygous mutation in SLC2A1 gene. Diagnosis and treatment?

4. Dr. Ahsan Moosa of Cleveland Clinic presented a 17-year-old boy with daily episodes of dizziness, 10 to 15 per day. EEG confirmed that they were seizures arising from the region of a focal malformation of cortical development in the right superior mesial occipital lobe. The dizzy spells stopped after lesion resection. Will his postoperative visual field defect prevent him from driving?

5. Dr. Steve Wolf and Ms. Patty McGoldrick of Beth Israel in New York presented four children with Doose Syndrome (Myoclonic-Astatic Epilepsy). The therapy which was very effective in their hands was ______.

6. Dr. Dennis Dlugos of Children’s Hospital of Philadelphia presented a 12-year-old girl with presumed genetic generalized epilepsy under good control since age 8. At 10 years of age she developed uncontrolled right frontal lobe epilepsy, and MRI showed a punctate area of increased signal in that area. Should she be offered right frontal lobe resection?

**Answers**

1. Cerebral folate deficiency. Folinic acid (Leukovorin) 0.5 to 1.0 mg/kg/d.
2. Yes!
4. No. He sustained only a small inferior quadrantic defect.
5. High dose ACTH and then prednisone taper.
6. Good question! The discussion was lively and diverse, with votes both for and against epilepsy surgery.

**MEG SIG**

Jerry J. Shih, M.D.

The theme of the 2010 MEG SIG was to review the breadth of MEG studies from around the globe. Investigators from major research centers from Asia, Europe, and North America presented their current research as well as seminal research from their geographical region. Dr. Yung-Yang Lin presented a nice review of MEG work from Asia; Dr. Hermann Stefan presented work from the European region and focused on new approaches to clinical MEG. Dr. Robert Knowlton presented data from North America and focused on intracranial validation of EEG and MEG data. Dr. Timothy Roberts discussed MEG studies of language impairment, and Dr. Gregory Barkley reviewed the current state of reimbursement for clinical MEG. Over 120 AES members attended the 2010 MEG SIG. Attendees gave very positive feedback regarding the wide breadth of data presented, specifically commenting on the advantages of hearing information about work performed and published outside of their geographic region.

**Epilepsy Surgery SIG**

Michael M. Haglund, M.D., Ph.D.

The Epilepsy Surgery SIG again attracted a large standing room only crowd for discussions regarding a set of surgical cases. The comments from the audience were insightful and the debate was quite fun. Nonlesional cases worked up in a variety of ways and discussion from the audience brought up alternatives and in many cases new insights. The power of the SIG is the participants, but the moderator would also like to thank the brave souls that were willing to put up their difficult cases for debate and analysis. However, next year the topic will be “Epilepsy Surgery Failures”, so no one will be immune and no case will have a “seizure-free” ending. If you have cases, please e-mail Michael Haglund, Duke University at michael.haglund@duke.edu. We look forward to next year and how we address our surgical failures.

**Engineering: Modeling Epileptic Networks**

Piotr Franaszczuk, Ph.D. and Greg Berger, M.D.

The theme of the 2010 AES Engineering and Epilepsy SIG was modeling of epileptic networks. The invited speakers presented recent results of their modeling studies in epilepsy. Dr. Michal Zochowski from University of Michigan presented recent results of their modeling studies in epilepsy. Dr. Michal Zochowski from University of Michigan presented recent results of their modeling studies in epilepsy.
presentation was followed by Alexander Rothkegel from the University of Bonn presenting a study of self-generated and self-terminated recurrent episodes of synchrony in a spatial network. These results show how the network can switch spontaneously between "normal" and "seizure" states. Dr. Piotr Suffczynski from The University of Warsaw continued by presenting a model of thalamo-cortical circuitry exhibiting similar bistable behavior switching between two states according to a Poisson process. Dr. Stiylan Kalitzin from the Epilepsy Institute of the Netherlands brought the discussion closer to real networks in his presentation "Dynamics of synaptic plasticity and slow membrane currents: getting closer to realistic transition models in epilepsy". He proposed a multi-stable model, taking into account synaptic plasticity changes which provide an explanation for the deviation of the statistics of real seizure duration from the models of random transitions. Finally, Dr. John Milton from Claremont College presented "Modeling epilepsy at the edge of stability" which showed that even relatively simple mathematical modeling of instabilities results in complex patterns of transitions between stable and unstable states. All presentations elicited multiple questions and lively discussion about implications of these models for epilepsy research and treatment. In particular the predictability of seizures and ability of preventing or terminating seizures early by altering the dynamics of the system were discussed. The prevailing conclusion was that different types of epilepsy (e.g. absence vs. complex partial) may represent different dynamics and be more or less predictable. Further network modeling studies may help better define the characteristics of this classification.

**SUDEP: Mechanisms and Models**

George Richrion, M.D., Ph.D. and Lawrence Hirsch, M.D.

This year’s SUDEP SIG consisted of a rapid sequence of presentations related to mechanisms of SUDEP, including investigations in humans and animals. Philippe Ryvlin presented results from the multicenter European observational study on mortality in EMUs (MORTEMUS): results suggested primarily respiratory explanations for SUDEP, especially cerebral shutdown associated with apnea. Most deaths occurred when the patient was unsupervised. Primary arrhythmia was rare but occurred. Carl Fairf presented further data on his mouse model in which manipulating serotonin can stop or exacerbate seizure-related death (increasing serotonin prevents it); death is due to postictal respiratory arrest, not cardiac. Jeff Noebele presented evidence (mous and human) that 2 LQT-related K+ channel genes are associated with SUDEP either via cardiac or autonomic (vagus nerve) effects. Lisa Bateman presented results of studies on peri-ictal hypoxemia, which is common even in non-generalized seizures, and postictal hypercapnia, also common and not fully explained by apnea. SSRIs were associated with decreased postictal hypoxemia, but only in non-generalized seizures. Detlev Boisson presented a new mouse model that is deficient in adenosine clearance; results suggest that peri-ictal increase in adenosine may play a role in central apnea and SUDEP, and that caffeine can prevent this. Dr. Tao reported one well-studied case and other evidence suggesting that airway obstruction and a combination of hypoxia, hypercapnia and acidosis may explain SUDEP. Gordon Buchanan discussed a novel model of SUDEP in mice with central serotonin deficiency; they have decreased arousalability and response to hypercapnia, and impaired postictal respiration. Finally, Larry Hirsch mentioned some of the many abstracts related to SUDEP being presented at this year’s meeting. He also reminded everyone of the recently-announced funding opportunity from NINDS for an exploratory grant on SUDEP that would prepare for the creation of a Center Without Walls. The SIG was standing room only, and discussions were lively.

**Neuroimaging: Imaging in Focal Cortical Dysplasias**

Fernando Cendes, M.D., Ph.D.

Speakers: Ingmar Blumcke; Department of Neuropathology, University Hospital Erlangen, Erlangen, Germany; Imad Najm; Director, Epilepsy Center; Cleveland Clinic, Neurological Institute, Cleveland, Ohio; André Palmini; Neurology Service & Brain Institute; Pontificia Universidade Católica do Rio Grande do Sul; Porto Alegre, Brazil.

The neuroimaging SIG focused on Focal Cortical Dysplasias (FCD). It started with Ingmar Blumcke summarizing the new ILAE consensus classification for FCD which has been published recently (Epilepsia 2011; 52:158-174). This classification includes three types of FCD: (1) FCD Type I (isolated FCDs) which remains enigmatic. There are probable "hidden" clinico-pathological entities (or even syndromes) which need better characterization and better presurgical detection by imaging and electrophysiology; (2) FCD Type II which is histopathologically well characterized and allows good outcome prediction (>75% seizure control) as well as therapy/pathogenesis-related scientific studies; and (3) FCD Type III which are associated with other lesions such as hippocampal sclerosis and tumors. This type of FCD needs to be characterized clinically, neurophysiologically; histopathologically, and by neuroimaging. FCD type III remains at the present the most frequently published FCD variant.

Imad Najm discussed histopathological, imaging and electro-clinical correlations of FCD and presented data both from clinical and experimental studies. The session finished with André Palmini presenting some discussion on imaging, surgical strategies and outcome of FCD.

The room was completely full from the beginning to the end of our session. We had a great participation from the audience with questions, suggestions and comments. The discussion involving several attendees and all speakers was very intense and interesting, sometimes passionate. The success of this SIG demonstrates the great interest from the AES community in the better understanding of this highly epileptogenic type of lesion which often times goes undetected by current neuroimaging methods and sometimes is found only on histopathology of surgical specimens.

**Status Epilepticus**

Tobias Loddenkemper, M.D. and Susan Herman, M.D.

The first special interest group on Status Epilepticus was a huge success outlining new frontiers in the diagnosis and treatment of status epilepticus. Dr. Riviello, Dr. Bleck, and Dr. Bertram provided cutting edge talks on diagnosis, treatment, and translational research frontiers in status epilepticus respectively. Dr. Riviello specifically discussed approaches and algorithms for clinical workup, identification and monitoring of status epilepticus. Dr. Bleck presented experience from the VA cooperative trial and provided insights into first and second line treatment options of status epilepticus, and also outlined treatment options in patients with Refractory Status Epilepticus. Dr. Bertram reviewed the basic pathogenesis of status epilepticus and how rodent models may explain some of the difficulties encountered in the clinical treatment of patients. The brilliant presentations by the speakers sparked fruitful discussions that outlasted the end of the AES meeting in 2010. We thanked the audience for wonderful feedback and
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interaction, and hope to be able to offer a larger room in 2011 to accommodate all those that did not find a seat this year.

Pregnancy Outcomes
Cynthia Harden, M.D. and Georgia Montouris, M.D.
The Pregnancy Outcome SIG at the AES 2010 meeting was again an update on the remarkable work being done around the globe to gather information on pregnancy outcomes in babies born to mothers with epilepsy, with an emphasis on antiepileptic drug-associated effects. The information presented was mostly unpublished and therefore will not be discussed herein. The new published findings were related to cognitive outcomes. Dr. Kimford Meador from the Department of Neurology at Emory University discussed his recent report (Neurology 2010;30;75(22):1954-60) from the Neurodevelopmental Effects of Antiepileptic Drugs Study, which is an ongoing prospective multicenter observational investigation of long-term effects of in utero single AED exposure (carbamazepine, lamotrigine, phenytoin, or valproate) on cognition. A total of 42% of enrolled children (n=199) were breastfed and were evaluated at 3 years of age. IQs for breastfed children did not differ from nonbreasted children for all AEDs combined and for each of the four individual AED groups. Mean adjusted IQ scores (95% confidence intervals) across all AEDs were breastfed = 99 (96-103) and nonbreasted = 98 (95-101). There was not enough statistical power to distinguish between AED groups, however. Dr. Gus Baker, from the Department of Genetic Medicine at Manchester Academic Health Sciences Centre, in the Walton Centre for Neurology and Neurosurgery, University of Liverpool, Manchester, UK discussed his recent prospective study of early cognitive development in children born to women with epilepsy (Epilepsia 2010;51(10):2058-65). In this study, cognitive development of children born to women with epilepsy (n = 198) was assessed and compared to a group of children representative of the general population (n = 230). Children were younger than 2 years of age, and were evaluated using the Griffiths Mental Development Scales by an investigator blinded as to the treatment status. His group found that children exposed to sodium valproate had a statistically significant increased risk of delayed early development in comparison to the control children that was not accounted for by confounding variables.

Finally, an announcement was made about the WEPOD study (Women with Epilepsy: Pregnancy Outcomes and Deliveries) funded by the Milken Family Foundation, which is an evaluation of fertility in women with epilepsy compared to control women, in which the iPod touch is being used to track data prospectively. The study is enrolling women with epilepsy and controls who are actively planning pregnancy at three sites, the NYU Epilepsy Center with Dr. Jacqueline French, at the Brigham and Women’s Hospital with Dr. Page Pennell, and at the North Shore-Long Island Jewish Medical Centers with Dr. Cynthia Harden. Attendees at the SIG were encouraged to steer such potential subjects toward these investigators for this important study.

CALENDAR OF EVENTS

April 7 – 9, 2011
The London-Innsbruck Colloquium on Status Epilepticus 2011
Oxford, United Kingdom
http://www.statusepilepticus2011.eu

April 9 – 10, 2011
The 14th Annual Meeting of the Infantile Seizure Society – International Symposium on Neonatal Seizures and Related Disorders (ISNS)
Juntendo University Auditorium, Tokyo, Japan
http://www.isns-jpn.info

May 4 – 7, 2011
9th European Association Neuroscience Nurses (EANN) Congress
Floreal Club Congress Centre, Blankenberge, Belgium
For more information go to www.eann2011.com

May 11 – 14, 2011
9th Congress of European Paediatric Neurology Society (EPNS)
Cavtat / Dubrovnik, Croatia
http://www.epns2011.com

June 8 – 10, 2011
8th Annual World Congress on Brain, Spinal Cord Mapping & Image Guided Therapy
San Francisco, CA, USA
http://www.worldbrainmapping.org/

August 23 – 26, 2011
XI Workshop on Neurobiology of Epilepsy (WONOEP 2011): Finding Novel Mechanisms for Epilepsy Therapy
Park Hotel Villa Graziali, Grottaferrata, Italy
Contact segr.decurtis@istituto-besta.it for more info.

August 28 – September 1, 2011
29th International Epilepsy Congress
Rome, Italy
http://www.epilepsyrome2011.org

December 2 – 6, 2011
65th Annual Meeting of the American Epilepsy Society
Celebrate the 75th Anniversary of the Society in Baltimore, MD
http://www.aesnet.org