



NEWSLETTER

CHILD NEUROLOGY SOCIETY Election of Officers



Donna M. Ferriero, MD



Roberts S. Rust, MD



Wendy G. Mitchell, MD

Balloting for three vacancies on the CNS Executive Committee closed on October 8 at the end of the 30-day voting period mandated in the CNS bylaws. An impressive total of 538 ballots were returned—nearly 50 per cent of all eligible Active members—with the following outcome:

President-Elect:

Nominees: Donna M. Ferriero, MD & William Logan, MD

Dr. Ferriero was elected to serve a four-year term on the Executive Committee; one year as President-Elect, two years as President, and one year as Past-President. She replaces Dr. Ann Tilton on the board; Dr. Tilton rotates off at the end of four years as President-Elect/President/Past-President. Dr. Ferriero served on the Executive Committee from 2004-2006 as Councillor

to the West and is presently co-chair of the CNS Long Range Planning Committee with incoming PCN President, Leon Dure, MD. Dr. Ferriero is presently Professor of Neurology and Pediatrics and Vice Dean of Academic Affairs in the School of Medicine at UCSF; she also serves as Vice-Chair in Neurology and Division Chief of Child Neurology.

Councillor to the South

Nominees: Robert S. Greenwood, MD & Roberts S. Rust, MD

Dr. Rust fills the seat vacated by Dr. Anne Anderson. Dr. Rust is the longtime chair of the CNS Archives Committee, renowned for his annual profiles of CNS Award recipients, of whom he is one, having received the Hower Award last year in Quebec City. Dr. Rust is the Thomas E. Worrell Professor of

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You Are Invited to Attend a CME Satellite Symposium



ADVANCES IN THE IDENTIFICATION AND MANAGEMENT OF REFRACTORY CHILDHOOD EPILEPSY SYNDROMES: **Focus on SCN1A**

*To be held at the Child Neurology Society 37th Annual Meeting**

Sponsored by:



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Target Audience: Neurologists

Thursday, November 6, 2008
Santa Clara Convention Center
Ballroom C/D
5001 Great America Parkway
Santa Clara, California

Faculty

Course Director

Laurie M. Douglass, MD

Carl E. Stafstrom, MD, PhD

James W. Wheless, MD

Mary L. Zupanc, MD

Registration and Dinner: 6:30 PM – 7:00 PM

Scientific Program: 7:00 PM – 9:30 PM

To register online please visit www.cealliance.org/cns, or contact Caitlin Prinsen at 203.983.6113.

On-site registration will be accepted if space allows.

This educational activity is supported by an unrestricted educational grant from Eisai Inc.



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AWARDS COMMITTEE

Award Profiles

CNS to Confer Five Awards at 37th Annual Meeting in Santa Clara

Phillip L. Pearl, M.D., Chair, Awards Committee

The Child Neurology Society will recognize five members at the 37th Annual CNS Meeting in Santa Clara with the presentation of awards to Drs. Stephen Ashwal (Hower Award), Michael Johnston (Sachs Award), Laura Jansen (Philip R. Dodge Young Investigator Award), Cesare Lombroso (Lifetime Achievement Award) and Niels Low (Lifetime Achievement Award). Those honored were selected by the CNS Awards Committee and subsequently approved by the CNS Executive Committee. The CNS Awards Committee is composed of eight standing members plus chair (6-year terms) and three Young Investigator Awardee members (3-year terms). The committee membership draws from a breadth and depth of seniority and experience in pediatric neurology, and the constant influx of the prior three Young Investigator Awardees provide a fresh outlook each year.

Profiles of the awards recipients, written Drs. Robert S. Rust and Howard Goodkin on behalf of the Awards and Archives Committee follow. Before moving on to those profiles, it is worth noting 1) how the committee selects award recipients, and 2) how you can participate in the selection of future award recipients.

The Life Time Achievement Award is a concept that was borne from a desire to create a Humanism in Medicine award as a fourth major award to be bestowed by the CNS, along with the Young Investigator, Sachs, and Hower Awards. The criteria for the Life Time Achievement Award are:

1. CNS member >20 years and usually longer.
2. Recognized for outstanding commitment to humanism in medicine, as assessed by the nominator(s), colleagues, trainees, and patients and their families.
3. Recognized for leadership or service to the CNS.
4. Life-long career devoted to child neurology as a clinical discipline, whether as a practitioner, clinical investigator, or advocate for the principles of the CNS.

The Lifetime Achievement Award was initiated in 2004 with these recipients:

2004 Dr. Jean Holowach-Thurston

2005 Drs. Robert Eiben and Arnold Gold

2006 Drs. Raymond Chun and Barry Russman

2007 Drs. Charles Kennedy and Gordon Watters

The 2008 winners are Drs. Cesare Lombroso and Niels Low. The Committee sadly learned after the election that Dr. Low had died shortly before our meeting, but the family was most appreciative and we decided to bestow this honor posthumously given the circumstances.

In 2004, the YIA was renamed **The Philip R. Dodge Young Investigator Award** to honor the powerful mentoring skills and legacy of Dr. Phil Dodge, whose effectiveness in creating a new generation of child neurologists who have gone on to foster another generation of child neurologists is legendary. In an effort to include our colleagues in neurodevelopmental disabilities (NDD), and to clarify eligibility criteria for young investigators, the YIA candidacy was redefined last year by the CNS Executive Board as graduates of child neurology or

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Award Profiles

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NDD training programs who are within a period of ten years from medical school graduation.

This year's recipient is Laura A. Jansen, MD, PhD from the University of Washington and Children's Hospital and Regional Medical Center in Seattle, who will present her paper, "Developmental Changes in Human GABA(A) Receptor Expression and Function."

The Bernard Sachs Award is granted to someone of international status who has done leading research in neuroscience with relevance to the care of children with neurological disorders. Many luminaries in the field are associated with this award. Recent winners have been Drs. Karin Nelson (2004), Carter Snead (2005), Donna Ferriero (2006), and Fred Andermann (2007). This year our Sachs lecturer and honoree is Dr. Michael Johnston.

The Hower Award honors a child neurologist and member of the CNS who is highly regarded as an outstanding teacher and scholar, and additionally has given a high level of service to the CNS and other national and international organizations. Recent awardees have been Drs. John Freeman (2004), Alan

Percy (2005), Michael Painter (2006), and Robert Rust (2007). This year our Hower awardee and lecturer is Dr. Stephen Ashwal.

The Awards Committee is now soliciting nominations from the membership for candidates for the 2009 Sachs, Hower, and Lifetime Achievement Awards. Please send a letter of nomination to the CNS, Attn: Mary Currey, or directly to myself at:

Phillip Pearl, MD
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Children's National Medical Center
111 Michigan Avenue, NW
Washington, DC 20010
Phone (202) 476-2120
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E-mail ppearl@cnmc.org

I would like to express my sincere gratitude for the participation and efforts of past committee members and my current co-members: Anne Anderson, Nigel Bamford, William Gaillard, Rebecca Ichord, William Logan, Mirjana Maletic-Savatic, Keith Meloff, Mustafa Sahin, Nina Schor, Elliott Sherr, and Huda Zoghbi.

Phillip Pearl MD
Awards Committee Chairman

ELECTION OF OFFICERS, continued from page one

Epileptology and Neurology and Professor of Pediatrics, Director of Child Neurology, Co-Director of the F.E. Dreifuss Epilepsy and Child Neurology Clinics, and Faculty-Fellow at Brown Residential (undergraduate) College at the University of Virginia.

Councillor to the West

Nominees: Wendy G. Mitchell, MD & Raman Sankar, MD, PhD

Dr. Mitchell replaces outgoing Councillor to the West, Dr. Leslie Morrison. Dr. Mitchell is presently Professor of Clinical Neurology,

Keck School of Medicine, University of Southern California, and program director for the child neurology residency at Children's Hospital Los Angeles, where she has been on-staff since 1981 and recently became Division Head of Child Neurology.

Drs. Ferriero, Rust and Mitchell join Drs. John Bodensteiner (President), Nina Schor (Secretary-Treasurer), Steven Leber (Councillor to the Midwest), and Jonathan Mink (Councillor to the Northeast) on the Executive Committee.

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Bernard Sachs Lecturer



MICHAEL V. JOHNSTON,
MD

MICHAEL V. JOHNSTON, MD

Michael Johnston received his bachelor's degree in Liberal Arts and Biology from Franklin and Marshall College and his medical degree from the University of Pittsburgh School of Medicine. Numerous awards for his performance in medical school included the Brinton Prize for highest standing in the graduating class and the Senior Prizes in Medicine, Pediatrics, and Ob/Gyn. Dr. Johnston trained in Pediatrics and Neurology at The Johns Hopkins Hospital. A two-year stint as Major in the Medical Corps (Meritorious Service Medal at Discharge), separated these training experiences. During this interval he received additional training in neurochemistry and worked as a part-time emergency physician in Alexandria.

Two years of NINCDS Fellowship training in pharmacology followed under the direction of Dr. J.T. Coyle. During this time Dr. Johnston published his first basic science paper, in *Science*, employing a mitotic poison to produce targeted neuronal ablation during early brain development. In this and in an ensuing series of eighteen major papers from the same research group the role that Dr. Johnston played can be inferred from the fact that he was the first author of 10 of 18 papers. Nine of these papers have been cited >29 times, 7 >50 times, 2 >380 times. They characterize the neuroanatomic and neurochemical adaptations that accompany developmental disturbance and revealed highly important information not only about the governance of neocortical development, its connections to deep brain structures, and the function of neocortical noradrenergic, GABAergic, and cholinergic neurotransmitter systems. The approach and the conclusions of these studies were to proven highly influential not only methodologically, but in conceptualization of neurologic disease. The immediate applications to the understanding of vulnerabilities during early

brain development due to genetic or environmental causes have proven enormously important in the study of developmental interdependence of brain systems, synaptic plasticity and neurotransmitter physiology.

The methods and resulting discoveries provided a foundation for the study of particular vulnerable stages in development, the manner in which various environmental influences may exploit those vulnerabilities to produce injury. They have provided the foundation for meticulous understanding of the time course and stages of devolutionary processes within the nervous system throughout the course of central nervous system function. This understanding permits opportunities for intervention to slow or arrest the course of injury to be identified and tested. As has often been the case in the history of neuroscience, experimental demonstration that particular patterns of neuroanatomic and neurochemical dysfunction result from particular causes has provided clues to the causes of similar patterns in genetically determined neurologic diseases and those for which the cause is as yet unknown. Such advances provide opportunities for the identification of causes that may be prevented or treatments that may be administered. These papers have played a highly influential role in countless subsequent studies in many laboratories not only concerning forms of neurologic disease, but also of neurogenesis, synaptic plasticity, learning, memory, and perhaps most other forms of central nervous system function.

In 1980, after a year as Chief Resident in Pediatric Neurology at Hopkins, Dr. Johnston joined the clinical faculty at the University of Michigan, Ann Arbor, with additional appointment as Research Scientist in the Center for Human Growth and Development. He was supported by a TIDA (PHS-NINCDS)

Sachs, Hower, and Lifetime Achievement Award profiles written on behalf of the Awards and Archives Committee by Robert S. Rust, MD. Philip R. Dodge Young Investigator Award profile written by Howard Goodkin, MD.

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CNS Awards

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and Sidney Farber (UCPRF) Awards. He rose in seven years to the rank of Professor of Pediatrics and Neurology. In 1988 he returned to the Johns Hopkins Hospital as Professor of Neurology and Pediatrics. He was also appointed Medical Director and Director of the Neuroscience Laboratory at the Kennedy Krieger Children's Hospital and Research Institute. His own extensive research was supported by a Javits Neuroscience Investigator Award (NINDS-NIH).

Dr. Johnston's ensuing contributions to science have more than fulfilled his early promise. Indeed, his career has been one of unceasing productivity. Approximately 80% of the 269 original papers and reviews that Dr. Johnston has published to date are major contributions to basic neuroscience. Of the total, 102 (38%) have been cited more than twenty times, 46(17%) have been cited more than fifty times, while 16 are those rare "citation classics" that have been cited more than 100 times. All of his papers are written with clarity and great insight, clearly setting a line of research on a firm foundation and suggesting promising directions for further work. The pace of work is astonishing, undoubtedly reflecting not only his sense of direction, but also his capacity to recruit and direct trainees. But to this must be added the astonishing capacity he has shown to enfranchise such individuals as colleagues, maintaining relationships over productive span of many years. With his first Career Award advisee at the University of Michigan, Faye Silverstein, he has published more than forty well-known papers and highly cited papers, particularly those related to excitotoxic mechanisms and treatment of hypoxic-ischemic injury of the newborn. However, in keeping with the flexibility and richness of the research approach, others concern heritable neurological conditions such as Lesch-Nyhan, CSF neurotransmitters, methotrexate encephalopathy, striatal and hippocampal injuries, and other subjects.

With his first Michigan Ph.D. candidate, John McDonald, Dr. Johnson has also written more than forty papers, including his most highly cited paper (Brain Res Rev 15:41-70—cited 1059 times) a paper that provides a fine example not

only of the clarity and elegance found in all papers from the Johnston group, but also the capacity to synthesize information of great importance and leave the reader inspired to carry on such important work. Other subjects of these papers include the inevitable series of excellent papers on the complexities of neurodevelopment and of HIE and its treatment, but also the mechanisms of non-ketotic hyperglycinemia. There are extraordinarily large number of collaborators in the Johnston papers, exemplifying not only his capacity to attract individuals he can train, but his capacity to work with others, the pertinence of his approach to a great breadth of subjects, and his vision and leadership. It also speaks to his phenomenal internal energy, despite a characteristically calm and deliberate exterior. Wherever he has looked at disease, Dr. Johnston has enlightened us as to what is going on and, if possible, where and when we might be able to treat it. Beyond what has already been mentioned, he has contributed to the basic science of intoxication due to bilirubin, lead, anticancer treatments, dexamethasone, and neuropsychiatric drugs. He has characterized mechanisms of extrapyramidal cerebral palsy, Wernicke encephalopathy, lissencephaly, epilepsies, Alzheimer disease, Rett syndrome, autism, and X-linked mental retardation. He has published fourteen papers on the neurological aspects of cardiothoracic surgery. This list is not exhaustive.

Dr. Johnston is apparently an inexhaustible source for new ideas. In the past few years he has laid out fresh conceptions concerning cognitive function. His recent interest in the possibility of sex-related vulnerability to experimental models of cerebral palsy, apparently overlooked by previous researchers, has quickly blossomed into a new line of research. His quiet compassion for individuals with cerebral palsies and developmental disabilities has been reflected in his concern not only for prevention and treatment, but for rehabilitation—in which he received a secondary appointment at Hopkins in 2006. He has provided thoughtful perspective and leadership concerning the scientific and ethical aspects of cell-based interventions for early brain injury. It is important to note that Dr. Johnston's work has not only informed understanding of dementias experienced

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in mid or late life, it has done so as well for psychiatric conditions such as schizophrenia, fueling the growing consensus that such conditions are in no substantial way other than primary neurologic diseases. As early as his seventh paper, Dr. Johnston specifically elucidated the instructive parallels between the functional cortical hyperadrenergia produced by foetal developmental abrogation and those of schizophrenia.

Throughout his career Dr. Johnston has been active in all of the pertinent professional societies and a highly active participant and organizer of their research and educational efforts. He has served as Chair of both the CNS Scientific Selection and Research Committees and as a member of the Legislative Affairs and Strategic Planning Committees and Subcommittee for Neurology of Childhood in the Decade of the Brain. He served as Councillor from the East on the CNS Executive Committee. He was a member of the Scientific Program Committee of the ANA and the Research Task Force of ICNA. His service on NIH Study sections and has included, for the past 17 years, yeoman service as member and Ad Hoc Reviewer for Program Projects for the NIH-NINDS, NICDH, NIA, and NIMH, including membership on the NIH-NINDS Training and Career Investigator Study Section. For the ACGME he served on the Subspecialty Committee for Pediatric Critical Care and Committee on Renewal of Certification (ABP) and Director for Neurology of the ABPN. He was a member and Chair of the Neurology RRC and

Chair of the Committees on Maintenance of Certification in Child Neurology and Neurodevelopmental Disabilities. As a person whose leadership is always by example, Dr. Johnston became recertified in Child Neurology in 2003. His certificate in Pediatric Critical Care bears the #0005. In 2007 he became President, American Board of Psychiatry and Neurology. He is a reviewer for seven major journals, and serves on the Editorial Board or as Editor-in Chief for nine.

Dr. Johnston has received the John Stobo Pritchard Award (ICNA) and the Weinstein Goldenson Medical Science Award (UCBREF) the Award for Best Basic Science Poster at the World Congress on Rett Syndrome. More than 180 invited lectures have been given to the broad swath of national and international professional societies for which Dr. Johnston's work has been pertinent, including numerous named lectureships and visiting professorships throughout North America, and fifteen countries on four other continents. He has served as doctoral advisor for four and postdoctoral/career award advisor for twenty-one individuals whose ensuing careers have magnified his impact. He has provided in addition an extraordinary amount of informal guidance to individuals who have taken advantage of his visiting professorships and other opportunities seeking guidance in the development of their careers in neuroscience and medicine.

THANKS TO THE FOLLOWING FOR THEIR GENEROUS SUPPORT OF THE 37TH CNS ANNUAL MEETING!

SUPPORTER LEVEL \$40,000 - \$59,999

Eisai, Inc. (Booth #2)

– Thursday Satellite Symposium

Ortho-Neurologics, Inc. (Booth #13 & 14)

– Future of Epilepsy Therapeutics (Breakfast Seminar 3)
– Tote Bags

CONTRIBUTOR LEVEL \$20,000 - \$39,999

The Child Neurology Foundation (Booth #31)

– CNS Philip R. Dodge Young Investigator Award

Questcor Pharmaceuticals, Inc. (Booth #20 & 21)

– Future Leaders Program
– Thursday Wine & Cheese Reception

UCB, Inc. (Booth #16 & 17)

– CyberCafe

Valeant Pharmaceuticals North America (Booth #18)

– Friday Continental Breakfast

Thanks also to Ovation Pharmaceuticals (Booth #1: lanyards)

Stop by the CNS Electronic Communication Booth Inside Exhibit Hall A

Thursday & Friday, November 6 & 7

- “Test Drive” the newly designed Case Studies and Journal Club Sections with ECC Members Barry Kosofsky, Steve Leber, and Mickey Segal.
- Submit ideas for future CNS website development
- Get a free ECC t-shirt!

Remember: It's YOUR website!

Your input will help make it meet YOUR needs!

The screenshot displays the CNS website's Education page. At the top, there is a navigation menu with links for 'ABOUT US', 'FROM THE PRESIDENT', 'LEGAL/PRIVACY', and 'HOME'. Below the navigation, there are sections for 'Member Services' (My Account, Membership Directory, Workshops, Apply for CNS Membership, CNS Newsletter), 'Annual Meeting' (CNS Annual Meeting, Register Now), 'Careers in Child Neurology' (Introduction to Child Neurology, Positions Available, Training Programs), 'Education' (Education Membership, Case Studies, Journal Club, Online CME Credit Program, Past Meeting Presentations), and 'Resources' (Publications, Practice Parameters, Links, Meetings of Interest). The main content area features a 'Welcome Roger Larson' message and a 'Logout' link. The 'EDUCATION' section includes tabs for 'Case Studies', 'Journal Club', 'Online CME Programs', and 'Past Meeting Presentations'. A paragraph explains that Case Studies are a project of the CNS and the Professors of Child Neurology, with new cases posted monthly and diagnoses revealed after a month. A table lists several Case Studies with columns for Case ID, Title, and View. Below the table, it states '7 Case Studies found.' and provides information on submitting cases and accessing diagnosis preview privileges. Contact information for Michael Segal MD PhD and Barry Kosofsky MD PhD is provided at the bottom.

Case ID	Title	View
2008a	Newborn with hypotonia and poor feeding	Case
2008b	4 year old with seizures and language delay	Case
2008c	7 yr old with generalized weakness and rash	Case
2008d	Newborn with hypotonia and metabolic acidosis	Case
2008e	10-month-old with right eye nystagmus and head nodding	Case
2008f	7-week-old with horizontal nystagmus and head bobbing	Case
2008g	18 year old girl with confusion	Case

AWARDS COMMITTEE

Hower Award Lecturer



STEPHEN ASHWAL, MD

STEPHEN ASHWAL, MD

Born in Brooklyn, Steve Ashwal earned his undergraduate degree at New York University, majoring in psychology and chemistry. As a medical student at NYU he decided he would like to take care of children, largely on the strength of two summer electives: the first in child psychiatry service at Great Ormond Street, and the second in Holland, where he was able to see patients with the famous pediatrician Dr. Simon Van Creveld. During his lengthy career, Dr. Van Creveld's had contributed richly to neonatology, heritable metabolic diseases, childhood blood diseases, and genetics. Returning to New York University, child neurologist Richard Reuben played an important role in attracting Ashwal to child neurology, as would encounters with Sidney Carter and Arnold Gold at Columbia. Dr. Ashwal trained in pediatrics at Bellevue. During his residency he carried out, under the direction of Dr. Philip Brunell, studies of the effects of viral encephalitis and of the recently introduced cancer treatment, cytosine arabinoside.

Dr. Ashwal trained in child neurology at the University of Minnesota. He was greatly influenced by Director Ken Swaiman as well as Larry Lockman, Francis Wright, and by his senior resident, Bhuwan Garg. Attracted to critical care neurology, Dr. Ashwal carried out a study of cerebral death diagnosis in infants, the first of many such studies carried out during his career. Upon graduation, Dr. Ashwal was recruited to the Child Neurology section at the Loma Linda University School of Medicine. He has spent his entire career there, excelling as scientist, clinician, and teacher. Trained by Dr. William Kennedy, Dr. Ashwal has served since 1976 as Co-Director of the Muscular Dystrophy Clinic. He has been particularly active in clinical and research (clinical and bench) aspects of intensive care, both of neonates and of older

children, collaborating highly productively with neonatologists, intensivists, radiologists, and others. He became Chief of Child Neurology in 1995.

Dr. Ashwal has a remarkable publication record, including 160 original papers and reviews; a large percentage have been published in high impact journals. Fifty-five percent have been cited more than 20 times, 22 per cent more than 50 times, and 7 per cent more than 100 times. Twenty of these papers concern the basic science investigations in which Dr. Ashwal has engaged throughout his career. This work, supported by twelve grants, has characterized factors that account for vascular reactivity and secondary bloodflow disturbances under graded hypoxic-ischemic and other stressful conditions in developing brain. Models have included fetal lamb, pregnant sheep, rat pups and rabbit pups, spontaneously hypertensive rats, hippocampal slice, and isolated arteries. The studies have contributed importantly to the understanding of the reactions of developing brain and its vascular supply during and after varying forms and degrees of hypoxia, hypercapnia, acidemia, and hypotension. He has studied maternofetal hemodynamic interrelationships, vasoregulatory roles of calcium flux and cGMP in vascular endothelium, and the role of nitric oxide within ischemic areas and surrounding tissues. These studies and those evaluating possible treatments of focal ischemic stroke are highly cited.

The remaining 140 papers constitute a cross-section of neurological topics. More than half consider subjects related to intensive care. Twenty-nine well-known papers consider imaging techniques of increasing sophistication ranging from xenon bolus and catheter angiography through CT, scintigraphy, the entire spectrum of MRI, MRA, and proton MR spectroscopy. Among

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other things, Dr. Ashwal and colleagues have determined the precision with which imaging methods indicate bloodflow, brain death, neonatal and childhood metabolic disturbances, infectious diseases of brain, traumatic shearing forces, and other abnormalities. Careful follow-up has permitted Dr. Ashwal and his collaborators not only to evaluate treatments, but to assess the validity of various imaging changes that may permit more accurate prognostic formulations to be provided in situations where treatment options are being weighed. These studies have included neonatal HIE, drowning, traumatic brain injury, CNS infections, and early childhood cardiac surgery.

Sixteen papers consider issues related to brain death determination. Sixteen consider traumatic brain injury. Six consider the neurological aspects of cardiac surgery. Eleven consider the definition, clinical aspects, life expectancy, and possible reversibility of the persistent vegetative state. Three consider definition and clinical aspects of the minimally conscious state. Additional papers consider such other topics as metabolic illnesses, brain tumors, neurodegenerative conditions, poisoning, epilepsy, inflammatory diseases, child abuse, diseases of spinal cord, peripheral nerve, anterior horn cell, and muscle. Thoughtful, probing consideration of ethical issues has been a characteristic aspect of Dr. Ashwal's career, exemplified particularly well in his papers concerning organ donation from anencephalic individuals and those with severe neurologic dysfunction, and probing assessments of the accuracy of braindeath determination. In the "brave new world" of stem cell transplantation, Dr. Ashwal's sophistication with imagery has permitted him to address important questions regarding how imaging techniques might be employed to monitor the efficacy of this novel form of treatment. Eight grants have supported the clinical investigations of Dr. Ashwal and his colleagues. Dr. Ashwal has participated in supervision of the Doctoral research of eight individuals and the research projects of many physicians. He has trained 14 child neurologists.

Dr. Ashwal's many responsibilities in the CNS have included service as Secretary-Treasurer, and a particularly successful Presidency. Many important

CNS and CNF initiatives were either inaugurated or received a timely boost during his administration. His thirteen-year tenure on the Practice Committee has been marked by an exceptional degree of involvement in the writing of CNS/AAN Practice Parameters. Of particular note were his Co-Chairmanship of the Multi-Society Task force on Persistent Vegetative State (PVS), his active participation in the Aspen Guidelines for the Minimally Conscious State and his service on Task Force 1 to establish criteria to define cardiac death. Dr. Ashwal has been a particularly important organizer and advocate for completion of practice parameters relevant to issues facing both child and adult neurologists. These studies have carefully assessed the quality of available information and have provided direction for important future research. Dr. Ashwal has played a particularly important role in those concerning Concussion, Intracranial Mass Lesions in AIDS, Autism, First Nonfebrile Seizure, Global Developmental Delay, Recurrent Headache, Migraine in Children and Adolescents, Cerebral Palsy, Duchenne Muscular Dystrophy, Infantile Spasms, and Status Epilepticus. Dr. Ashwal has contributed not only his knowledge and judgment, but also his determination, perseverance and tact. The parameter concerning PVS has been cited more than 450 times, that for autism 175, and minimally conscious state parameter 162 times.

Dr. Ashwal's interest in the history of neurology has been reflected in six papers and in his masterful efforts inspiring and editing *Founders of Child Neurology*, published in 1990. This very successful book characterized with great detail and interest the development of our subspecialty through the lives and contributions of some of its most notable participants. The achievement required the same set of skills as he manifested in bringing practice parameters to their conclusion, as well as thoughtful prodding, patience (with a discernable limit), encouragement, timely direction, the capacity to enlist collegial responsibility, and the ability to summon excellence. These attributes were displayed again as he assumed co-editorship of Dr. Ken Swaiman's *Pediatric Neurology* and have

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STEPHEN ASHWAL, MD, continued from page ten

continued through the two editions, the last including the similarly extraordinary editorial skills of Donna Ferriero. Always ranked among the few primary texts for our subspecialty, these editions have rendered it ever better—keeping up remarkably well with our dramatically expanding field. Characteristic of Dr. Ashwal has been the degree to which he has pitched in where needed to bring various chapters to completion. Unaccountably, given his broad and important commitments, Dr. Ashwal has somehow written sixty-five chapters for a wide variety of textbooks.

Dr. Ashwal is an accomplished teacher, known for his capacity to consider clinical problems within a perspective that is enriched by his accomplishments as basic scientist, clinician, medical historian and thoughtful ponderer of moral and ethical questions. He has been in demand as a visiting professor and lecturer throughout the United States, Chile, and

Canada (where he received the Preston Robb and John Stobo Pritchard Awards, as well as the John Tibbles Lectureship). He has been similarly much sought after as a lecturer in South America, China, Italy, and Turkey. Dr. Ashwal is a member of the Board of the International Child Neurology Association. He was a founding member of the Executive Board of the Child Neurology Foundation. He has served as a Board Examiner for twenty years. He has been an NIH Grant Reviewer, ad hoc reviewer for eight journals, and has done yeoman service on three editorial boards. Dr. Ashwal enjoys travel and is a devoted husband, father, and grandfather. Eminently approachable, he is known by all as a person of vision, integrity, and concern for others. He is a person who tirelessly seeks to achieve excellence in multiple arenas, with remarkable success and a laudable record of carrying others along with him in the process.

Lifetime Achievement Award



CESARE LOMBROSO,
MD, PHD

CESARE LOMBROSO, MD, PHD

Cesare Lombroso, born in 1917, spent his childhood in Rome, Palermo and Torino. His family included numerous distinguished writers and scientists. His father was a physiologist and his grandfather, for whom young Cesare was named, had been the first professor of mental diseases at the University of Pavia. Grandfather Cesare had been interested in neurological consequences of dietary deficiencies and was the internationally recognized founder of the science of criminal anthropology. He is said to have been the person who first attracted medical student, Camillo Golgi to the study of neuroscience. It is not surprising that as a teenager, Cesare Lombroso undertook bench investigations of the effects of various perturbations (autonomic manipulations, heat and cold, hormonal vitamin C, malnutrition) on intermediary metabolism and other homeostatic functions. His studies included investigation of the role of

the sympathetic nervous system in winking and autonomic aspects of digestion and temperature regulation. Although he received his degree from the Garibaldi Lyceum in Palermo, the studies were interrupted when the Lombrosos were compelled to move to Paris in 1937 as a result of his father's refusal to declare support for Mussolini. Young Cesare, himself, was active in an antifascist youth league.

Nine papers, published between 1936 and 1939, resulted from Lombroso's early research. The last of these, concerning physiological effects of malnutrition, was published in *Biochemische Zeitung* and was awarded the Lattes Prize in 1939. As WWII broke out Lombroso moved to the United States to attend the Johns Hopkins Medical School from 1939-1941, paying for his first year's studies with a cash award received in a poetry contest. As the US entered the war, Lombroso

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CESARE LOMBROSO, MD, PHD, continued from page eleven

jumped at the opportunity to place his strong anti-fascist sentiments into action. He served from 1941-1944 in the Office of War Information and the Office of Strategic Services (precursor to the post-war CIA). In Europe, the OWI served much the same function that Radio Free Europe would after the war. Lombroso became the Co-Chief of the Italian Short Wave Program. He also became a member of the Council of Free Italy, Vice-President of the Mazzini Society, and Co-Editor of *Nazione Unite*, a publication that championed Italy's resistance movement. He encountered and married a similarly devoted champion of the redemption of Europe from the Fascist tyranny, Polish émigré, Riesa

In 1945, Lombroso returned to Italy to take his medical degree from University of Genoa in 1946. He resumed his physiological investigations, characterizing a novel liver factor involved in lipid metabolism. Earlier work on this had earned him the prestigious Schering Award in 1942. The full results of his studies were published in *Science* in 1948. Dr. Lombroso completed a two-year residency in pediatrics at Genoa in 1950, under the direction of Professor Giovanni deToni, the highly distinguished physician and physiologist whose investigations of infantile nephrosis, renal tubular acidoses, and deamination disorders, identified the deToni-Debre-Fanconi syndrome. Dr. Lombroso's interests in alimentation prompted clinical studies of cystic fibrosis and of protein metabolism in malnourished children. Always keen to improve the lot of children, he developed and tested casein-derived feeding supplements for oral and parenteral administration. He was thus a pioneer of hyperalimentation. In the laboratory of Professor Arturo Bonsignore he investigated autonomic regulation of protein catabolism. Dr. Lombroso published eight papers from 1948-1950 reflecting his diverse clinical and experimental activities, and was awarded Ph.D. in physiology from the University of Rome in 1951.

In 1950 Dr. Lombroso moved to the new Seizure Unit at Boston Children's Hospital, becoming William Lennox's first epilepsy fellow. Dr. Lombroso sought, as always, to acquire as much basic science and clinical knowledge as possible. The importance of combining clinical

setting, close semiological observation, and electrophysiological excellence was manifested. He viewed all three elements as necessary and indivisible attainments of the epileptologist, attaining exceptional skill in each of these aspects. He would retain as well his early interest in basic science. In 1953, Dr. Lombroso undertook research on the cortical mechanisms of reflex myoclonus with Jerome Merlis and Alexander. This work, which resulted in six publications, was supported by one of the early NIH Career Development Fellowships. Dr. Lombroso's interest in the broad spectrum of neurological disease and neuropathology led him in addition to spend parts of four years (1953-1957) under Raymond Adams at the Massachusetts General Hospital. He was certified by the American Board of Psychiatry and Neurology in 1956. Dr. Lombroso also assumed increasing responsibility in the Seizure Unit. With Dr. Lennox's retirement (and shortly afterwards, his death), Dr. Lombroso was appointed (in the usual slow manner of the Harvard system) Acting Chief of the Epilepsy Unit and Laboratories (1962-68). He became Chief in 1968. Under his direction a remarkable Division of Neurophysiology was forged with federal and other grant support, combining research and clinical care of the highest quality with an educational mission for physicians, technicians, scientists, and others.

Dr. Lombroso published his first paper on epilepsy in 1950, concerning the electroencephalography and treatment of petit mal epilepsy. One of the first descriptions of subclinical psychomotor epilepsy in children followed. In 1952 he published the first of six papers on the use of acetazolamide for the treatment of epilepsy. He was among the pioneers in the use of carbonic anhydrase inhibitors, a category of agents that has expanded valuably in the past decade. He also participated in the introduction of methsuccimide (1955). His contributions to the use of intravenous diazepam for status epilepticus were of fundamental importance. He introduced the subject almost simultaneously with Gastaut in 1966. Thirteen subsequent papers refined understanding of oral, intravenous and rectal kinetics and dosage, and efficacy in various clinical settings. He was an early proponent of oral and

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rectal home treatment with diazepam. He was an early advocate of what has become known as “empowerment” of patients, trying to assure the range of their activities was as broad as possible and that they spent as little time as possible in emergency rooms and as inpatients.

Dr. Lombroso’s pioneering concern about what is now called “quality of life” for patients with epilepsy and their families led him to publish papers on the subject of “Living with Epilepsy.” The Family Service Team that he assembled consisted of professionals dedicated to the characterization and amelioration of the cognitive, emotional, social, and economic impact of epilepsy. The unification of various clinical and support services not only rendered the best possible care, it enriched research efforts. It alleviated the possibility that consulting services regarded the expedient care of patients with epilepsy as less urgent than Dr. Lombroso did. It led him, as well, to expand his definition of care of patients with epilepsy to incorporate diseases of other organ systems. Dr. Lombroso followed in Dr. Lennox’ large footprints pursuing the mission to educate not only neurologists and technicians about epilepsy, but also non-neurological physicians, nurses, psychologists, social workers, teachers, and the general public.

To date, Dr. Lombroso has published 176 original papers. In addition to those already considered, particularly noteworthy achievements included his early account with Lennox and Gordon Millichap of childhood cyclic vomiting (1955), the first description of what would become known as benign Rolandic epilepsy (1967), and a classic paper on SSPE (1965). He devoted meticulous attention to epileptic conditions associated with inborn errors of metabolism throughout the ‘60s. With Natalio Fejerman he published the first description of benign myoclonus of infancy (1977). In 1990 he published a classic review concerning the distinction of benign and severe forms of early myoclonic epilepsies. Dozens of important papers concern the diagnosis and treatment of infantile spasms, including the role that focal cortical dysplasia may play as an inciting and remediable influence. With Heni Gascon in 1974 he published a classic consideration of the syndrome of gelastic seizures. With Drs. Mikati,

Trevathan, and Krishnamoorthy he wrote a classic account of pyridoxine-dependant epilepsy (1991).

Dr. Lombroso has published three important papers with Guisepppe Erba clarifying the manner in which the sometimes difficult question as to whether electrographic seizures are primary or are the result of secondary generalization may be answered. Erba and Lombroso provided similar clarification with regard to classification of atonic, tonic, and myoclonic seizures, employing prolonged video EEG and EMG. A number of papers provide similarly elegant answers (and questions for further research) concerning the distinction of epilepsy from autonomic dysfunction, movement disorders, and other processes. Particularly lasting contributions were made to reflex syncope, breathholding spells, hyperekplexia, paroxysmal dyskinesias, and nocturnal frontal lobe epilepsy. Elegant papers concerning the classification and prognostic significance of EEG and evoked response patterns of children in coma represent another important area of contribution. Electroencephalographic aspects of Reye syndrome, brain tumors, nephrosis, brain edema, and other conditions are also well-represented in the work of Dr. Lombroso and his colleagues. It is fitting for the grandson of the pioneer in consideration of the “criminal mind” that Dr. Lombroso debunked the prevalent notion that 14 and 6 positive spikes were indicators of criminal tendencies rather than one of a number of normal variants he has characterized (1966).

Dr. Lombroso’s first consideration of neonatal seizures was published with Arthur Rose in 1964. This, along with a paper published the following year established a venerable system of classification that remains in use, as well as detailed consideration of etiologies, management, and outcome. What might best be described as a majestic series of 23 papers followed establishing with extraordinary care most aspects of semiology, EEG changes, differential diagnosis, treatment, and outcome for seizures of premature and fullterm infants. Two classic papers with Greg Holmes in 1993 summarize much of this data. The most recent contribution to this series (2007) provides a 20 year follow-up. It contains, as do so many papers, the assessment of current gaps in

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understanding and suggestion of future directions for research. Such sustained enthusiasm for the accomplishment of what is yet to be done is the more remarkable considering that this is the perspective of a 90 year old. Many of the papers in this series consider the interactions of brain development and epilepsy including in eight papers the prognostic significance of persistent EEG dysmaturity in the neonatal EEG. It is a noteworthy representation of the keen interest of Dr. Lombroso and his colleagues have had in refinement of bedside diagnosis that he and Giuseppe Erba published, in 1965, two papers on the use of "ultrasonar B-scanning" to map ventricular size in order to better interpret surface EEG findings. The advocacy of this technique prefigured by nearly two decades the better known demonstration by Allan Hill and Joseph Volpe that this method provided a most valuable "window on the brain" of infants.

For more than half a century Dr. Lombroso has attracted trainees from throughout the world, individuals who would carry his methods and program model back to their hospitals of origin. He has trained more than 240 post-graduate fellows, 82% of whom were physicians and 18% PhDs. As the mean training for these individuals has been 1.4 years, this represents 336 years of aggregate effort on behalf of enlarging the cadre of individuals devoted to the study and treatment of epilepsy. Dr. Lombroso's many distinctions include Presidency of the American EEG Society and the American Epilepsy Society as well as distinguished positions in numerous American and

International professional societies. He received the Gold Medal and Special Award in Clinical Neurophysiology from the International League Against Epilepsy, the Herbert Jasper Award of the American Clinical Neurophysiology Society, and the William Lennox Award of the AES.

In 1988 Dr. Lombroso became Chief Emeritus. In 1990 joined his old friends and longterm colleagues Drs. Erba and Burchfiel at Rochester, where he became Adjunct Professor in Neurology. After exerting his usual remarkable energies and expertise in that position for a number of years, he finally "retired" to Boston, though he continued to write and to analyze and publish the results of prior research. He has also maintained an office to see patients in a rather constricted space that included a venerable and indestructible Grass electroencephalograph. This permitted him to combine clinical and electrophysiologic bedside expertise in the care of patients. Dr. Lombroso is of course multilingual—if at times heavily accented—but is equally eloquent in facial expressions and throat clearing that have alerted his trainees to things they may have overlooked and in order to usefully qualify and emphasize his wry sense of humor. His understanding and eloquence extend as well to history, music, art, and literature. His friends have included noteworthy people of letters and famous musicians. Throughout his life he has been a devoted family man. His children include a nurse, a psychologist, and a molecular neuropsychiatrist.

AWARDS COMMITTEE

Lifetime Achievement Award



NIELS L. LOW, MD

NIELS L. LOW, MD

Niels L. Low was born in his grandmother's home in Copenhagen, Denmark in 1916. His father, a dermatologist, was away with the troops in World War I at the time of his birth. His early education was obtained in Carlsbad, Czechoslovakia., although during the summers he returned to Denmark. He studied medicine at Charles University in Prague in order to become a member of the third generation of physicians in his family. His final year of studies to qualify for his medical degree took place at the Medical College of South Carolina. His MD was conferred in 1940. A rotating internship at St. Luke's in Racine, Wisconsin was followed by two years of training in pediatrics at the Medical College of Wisconsin, Marquette Medical School. A student nurse, Mary Margaret Cook, who held an infant upon whom Dr. Low was performing a lumbar puncture, attracted his attention. This attraction became mutual, resulting in a marriage that would last for 64 years. In 1943 Dr. Low joined the Army Medical Corps. For three years he served in field and station hospitals in England, Belgium, and France. He was discharged at the rank of Captain in 1946, returning home to a son who had been born when he was away at war, Roger Lee Low.

Dr. Low returned to Wisconsin, spending seven years in private practice pediatrics in Racine. In addition, he took charge of the epilepsy clinic and of electroencephalography. Recognizing the need for additional formal training, Dr. Low moved in 1953 to Chicago to assume a fellowship position at the University of Illinois School of Medicine consultation clinic for epilepsy and the associated EEG laboratory. There he received training under Frederic A. and Erna L. Gibbs, an inseparable pair then in their twenty-third year of collaboration in research and clinical care of individuals with epilepsy. Together

with Albert Grass in the Putnam/Lennox laboratory at Harvard in the 1930's they had transformed Hans Berger's one channel EEG into a three channel model. They had quickly identified the electrographic signature of absence epilepsy and, in so doing, inaugurated American electroencephalography. Two years prior to Dr. Low's fellowship, Frederick Gibbs and William Lennox had shared the Lasker prize for contributions in epilepsy. Low spent two years acquiring the considerable knowledge and wisdom that the Gibbs team could impart. His experiences in Chicago permitted him to publish three papers: a general review of electroencephalography in children, electroencephalographic findings in breath holding spells, and consideration of electroencephalographic findings in children who had received pertussis immunizations.

In 1955, Dr. Low was selected to become the first individual to train in child neurology under Sid Carter at the Neurological Institute of New York at Columbia. Carter's own designation as child neurologist was conferred by the fiat of Dr. Houston Merritt, who had the wisdom to discern not only the need for child neurological specialists, but the capacity Carter possessed to train them. Dr. Carter had been able to arrange funding for Dr. Low's year of training in cerebral palsies and related conditions from the United Cerebral Palsy Foundation. As would become a pattern in Dr. Carter's mentor-mentee relationship, an opportunity quickly presented itself for the pair to write an important paper on a topic requiring one—in this case multiple sclerosis in children.

After this year of training, Dr. Low was recruited by Dr. James F. Bosma of the University of Utah Medical School to a position as Associate Research Professor of Pediatrics. About the same age as Dr. Low, Dr. Bosma was one of the founders of developmental pediatrics. He was also an

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electromyographer who made important contributions to the investigation of oropharyngeal disturbances including the various dysfunctions manifested by children with severe neurologic disorders. Dr. Bosma played a critical role in the establishment of speech-language and occupational therapies for children. He was a deeply committed advocate for children with chronic illnesses of all sorts. It is likely that in Niels Low he recognized a kindred spirit. These physicians shared a productive and lifelong devotion to defining problems, refining care, improving understanding, and ceaselessly advocating for disabled children.

Dr. Low's first Utah paper was a description of the severe mental retardation and some unusual features that he observed in two Utah children who had received no treatment for phenylketonuria. Although the possibility of dietary treatment had been considered in the 1930's, the first commercially available low phenylalanine diet did not become available until 1958. Moreover, it was not until 1960 that Guthrie (whose own child had mental retardation and whose nephew had PKU) was able to develop a reliable method for identification of PKU in infants prior to the onset of irreversible brain injury. Dr. Low published in quick succession three additional elegant papers concerning EEG abnormalities of PKU, normalizing data for developmental changes in serum phenylalanine and urine phenylketones and, with Bosma and others, a paper on the effects of their efforts to provide a low phenylalanine diet to children with PKU.

These papers, in which Dr. M.D. Armstrong also played an important role, represented more than considerations of a single metabolic disease. They represented important fuel for increasing interest in that era in mental retardation as a preventable illness. The quest to identify such opportunities became an important objective to which rising support for public health initiatives to help children could be directed. The work of Low and others concerning the severe effects of a potentially treatable disease provided the impetus for mass screening trials of the Guthrie test. The success of this phase and the demonstration of the effectiveness of dietary treatment if begun

soon enough after birth produced in 1963 a national consensus to "Test Every Newborn for PKU." "The rest," as they say, "is history." Dr. Low's additional publications based on his experiences in Utah included studying the utility of the sedative Suvren in treatment of brain injured children, a study of childhood polyneuritis, and papers on the effects of treating infantile spasms with dietary manipulations and with corticosteroids. During their years in Utah, Dr. and Mrs. Low were blessed with the birth of a daughter, Judith Ann Low.

In the meantime, a certification route for child neurology had been established in 1957. Sid Carter promptly established at the Neurological Institute the first NIH-supported child neurology training program. Low returned as the inaugural recipient of this fellowship, which entailed two additional years fellowship training, including a year of adult neurology. He may have been the first trainee to pass the formal requirements for ABPN certification in neurology with special qualifications in child neurology. He successfully completed the formal certifying examination at The Neurological Institute in December of 1960. In order to do so, he had had to walk several miles from his home in New Jersey through a blizzard. An invitation to join the Columbia University faculty followed, making Dr. Low the first of what would be an impressive collection of select individuals that were retained by Carter after they had completed their training with him.

At Columbia, Dr. Low and Charles Poser described pathological abnormalities in children who had experienced infantile spasms. He reported the effects of phenytoin treatment with Mel Yahr, and published a study of EEG findings in individuals with juvenile delinquency. In 1961 Dr. Low translated, edited, and published Foix's *The Encephalogram of the Normal Child*. In 1962 he and Sid Carter published a description of the emerging discipline of pediatric neurology. In 1965, with Drs. J.W. Correl and Jim Hammill, Dr. Low published report of childhood brain tumors. In 1966 he and Dr. Correll published a paper on head pain due to leptomeningeal cysts. With Abe Chutorian and Arnold Gold in 1968 he published the results steroid treatment of non-

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NIELS L. LOW, MD, continued from page sixteen

infantile myoclonic epilepsy of children. Since his work in Utah, Dr. Low had been an early and forceful advocate of the utility of these medications in myoclonic epilepsies. Subsequent publications considered the management aspects of children with chronic neurologic illnesses such as cerebral palsy, spinal muscular atrophies, mental retardation, and progressive myoclonic epilepsy. With physiatrist Dr. J. A. Downey he edited a book on rehabilitation of children with chronic disabling illnesses that ran through two editions.

Dr. Low achieved the rank of Professor of Pediatrics in 1989. For many years he had been in charge of the Child Neurology Clinic. He was one of several members of the faculty who consulted on children with chronic neurological conditions at the Blythedale Children's Hospital. Until his mandatory retirement from Columbia at age 65 Dr. Low was a popular teacher of students and residents in both clinics and wards. Trainees also joined him on his trips to Blythedale. They recall him as unfailingly kindly to children and their parents, a highly experienced and practical clinician. If the question of the relationship of mild head injury to an ensuing neurologic complaint were raised on rounds, his response was likely to be "Every childhood neurologic disease is preceded by a head bump." He emphasized the importance of understanding and acquiring excellence in managing common disabling conditions of children in addition to the more exotic rarities. His trainees found him to be what Isabelle Rapin and Arnold Gold, have termed a "no-nonsense teacher." He had the combination of extensive experience, excellent judgment, a dry wit, and a quick and tidy mind. To these he also added unfailing concern and kindness. For these and other attributes he was a valued participant in the storied monthly nocturnal clinicopathological case conference with beer and pretzels on the 14th Floor of the Neurological Institute.

Dr. Low lectured throughout the United States and internationally. He was active in national and international pediatric and neurological societies including the Child Neurology Society. He was elected to the ANA in 1965. He was a founding member of the International Child Neurology Association and in 1975 succeeded John Stobo Pritchard, becoming the second president. He served on the Board of the American EEG Society. So much appreciated were his services at Blythedale that in 1981, after his mandatory retirement from Columbia at 65, he was appointed Medical Director and Chief of Pediatrics. He joined his old mentor, Sid Carter, who had retired from Columbia to become chief of neurology there in 1978. Low remained at his Blythedale post for eight years and even after that retained a part-time position there for a few more years.

He enjoyed gardening, travel (especially to Denmark), stamp collecting, and reading history, Danish and German Literature, and listening to classical music. The only devotion that exceeded his devotion to child neurology was that he maintained for his wife, his son and daughter, five grandchildren (namesake Niels, Cassell, Maria, Sarah, and Dorothy), and one great grandson, Bo. His children remember his encouragement of study and of open-mindedness, his kind-heartedness and capacity to trust and relate with children. Dr. Low died peacefully at age 90 in his home in Tenafly New Jersey on August 20, 2007. There is no doubt that the recognition of his "Lifetime Achievement" in child neurology is a tribute that he would deeply appreciate as do his wife and family who shared his important life.

Philip R. Dodge Young Investigator Award



LAURA JANSEN, MD, PHD

LAURA JANSEN, MD, PHD

After earning a B.A. in Chemistry from Northwestern University, Laura Jansen returned to her hometown of St. Louis, Missouri, where she entered the combined M.D., Ph.D. program of the St. Louis University School of Medicine. Dr. Jansen excelled in her predoctoral training and graduated in 1998 Summa Cum Laude and as a member of the Alpha Omega Alpha Honor Medical Society. Both her pediatric and neurology training were completed at St. Louis Children's Hospital where she was exposed to many excellent clinician-scientists such as Steven Rothman, Bradley Schlagger, and Michael Wong. In 2004, she moved to Seattle to join the faculty of the Division of Pediatric Neurology at Seattle Children's Hospital where she is currently an Assistant Professor of Neurology at the University of Washington.

Dr. Jansen's first exposure to research occurred during her senior year at Northwestern studying the regulation of metalloregulatory proteins in a glowing bacteria model in the laboratory of Dr. Thomas O'Halloran. At St. Louis University, her doctoral thesis was guided by Dr. Thomas C. Westfall. Her elegant studies demonstrated a novel role for neuropeptide Y in sympathetic neurotransmission. Using PC-12 pheochromocytoma cells differentiated to a sympathetic neuronal phenotype, Dr. Jansen used a combination of biochemical and electrophysiological techniques to demonstrate that neuropeptide Y was capable of inhibiting catecholamine synthesis via calcium-dependent mechanisms. These studies resulted in the publication of four first-authored, well-cited manuscripts in high impact journals including a publication in the *Journal of Neurochemistry* which has been cited 24 times.

During the final year of her clinical training at St. Louis Children's Hospital, Dr. Jansen worked in the laboratory of Dr. Michael Wong, where she contributed to Dr. Wong's studies of glial dysfunction in tuberous sclerosis. Working with Dr. Wong, she used electrophysiological techniques to demonstrate impaired extracellular uptake of potassium by inward-rectifier potassium channels (Kir channels) by cultured TSC-1 deficient astrocytes. This important finding was published in *Epilepsia*; and, in the three years since its publication, it has already been cited 21 times.

Dr. Jansen's current research addresses the hypothesis that an alteration of the electrophysiological properties of GABAA receptors in human focal cortical dysplasias contributes to epileptogenesis. Her current studies are supported by a Mentored Clinical Scientist Training Award from the NIH and are being performed under the mentorship of Dr. Bruce Ransom in collaboration with Dr. Jeffrey Ojemann.

Dr. Jansen has been the recipient of numerous prizes including the CRC Press Award in Chemistry, an American Physiological Society Graduate Student Award, Rene Wegria Award in Pharmacology (St. Louis University School of Medicine), the Leonard Berg Prize for exceptional research performed during residency (Washington University School of Medicine), and the prestigious Marshall Sherfield Fellowship which provided her the opportunity to hone her electrophysiological techniques under the mentorship of Dr. Dimitri Kullman.

In addition to the Child Neurology Society, she is an active member of the American Epilepsy Society and serves as a member of the Professional Advisory Board of the Epilepsy Foundation Northwest.

ASSOCIATION OF CHILD NEUROLOGY NURSES UPDATE

ACNN Claire Chee Award for Excellence

Profile written by ACNN Claire Chee Award Committee



IRENE M. ELLIOTT, RN,
MHSC, ACNP

IRENE M. ELLIOTT, RN, MHSC, ACNP

Irene Elliott is a Clinical Nurse Specialist/Nurse Practitioner in the Division of Neurology at The Hospital for Sick Children in Toronto, Canada. Over the last thirteen years Irene's clinical practice, educational activities and research have focused on children with epilepsy and their families.

Irene received her registered nurse diploma from Saint John General Hospital, Masters of Health Science from McMaster University, Acute Care Nurse Practitioner Diploma from the University of Toronto and Nursing Unit Administrator Certificate from the Canadian Hospital Association. Her co-workers feel that Irene is an outstanding and experienced clinician. Over the years, she has worked with thousands of families and their children with epilepsy, always putting them first above all other aspects of her work. Irene has had a tremendous impact on these children and families. She has provided support and advocated endlessly to obtain needed services, therapies, educational interventions, supplies and equipment.

In addition to clinical practice, Irene has excelled in the field of research. She has been a co-investigator in five past studies and currently is a co-investigator in two. She has recently returned from Africa where she helped initiate a study on the epilepsy epidemic in Cameroon. Irene is currently the Chair of the Research Committee of the American Association of Child Neurology Nurses and Project Director/Investigator for the Research Institute (Brain & Behavior); Sick Kids. In 2006, Irene has received the Grace Evelyn Simpson Reeves Award for Excellence in Nursing Research.

Irene has also published extensively. She was the first author on four peer-reviewed journal

articles and has published in *Epilepsia*, *Epilepsy & Behavior* and *L'Axon* The Canadian Journal of Neuroscience Nursing. In addition, Irene has also co-authored seventeen peer-reviewed journal articles and two book chapters. Irene was also a pediatric editor for *L'Axon*, the former journal of the Canadian Association of Neuroscience Nurses from 1993-1996.

Irene is an extraordinary teacher. She has an encyclopedic knowledge that she readily shares with her colleagues from multiple disciplines. Irene is able to simplify and dissect information into components that add clarity to understanding. She is a renowned expert in epilepsy and consults frequently with colleagues within the Hospital for Sick Children and the broader epilepsy community both nationally and internationally.

Irene is cross-appointed to the Faculty of Nursing at the University of Toronto as a lecturer and clinical supervisor. She was also a designated guest lecturer to the Faculty of Pharmacy at the University of Toronto from 1996-2006. Irene recently expanded her teaching repertoire into cyberspace by co-developing the Epilepsy Website Project. Launched in March 2006, this is one of the most comprehensive teaching websites for children with epilepsy and their families. It is a valuable teaching tool utilized by children and families and health professionals alike.

In addition to the aforementioned research award, Irene was awarded the Hospital for Sick Children Family Advisory Committee Humanitarian Award in 2004. This is the highest award that the institution offers and recognizes care and compassion rendered to sick children and their families. Families submit nominations for this highly competitive award. Additionally, Irene was

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ASSOCIATION OF CHILD NEUROLOGY NURSES UPDATE

IRENE M. ELLIOTT, RN, MHSC, ACNP, continued from page nineteen

given the Hospital for Sick Children Award for Excellence in Advanced Nursing Practice in 1997.

As Dr O. Carter Snead mentioned in his nomination letter of Irene, "She is the finest nurse with whom I have had the privilege to work. She has a positive impact on everyone

around her and as a result, has enriched and improved the lives of hundreds of disabled children and their families".

It is our great privilege to recognize Irene's accomplishments with the Association of Child Neurology Nurses 2008 Claire Chee Award for Excellence.

ELECTRONIC COMMUNICATIONS COMMITTEE UPDATE

ICNAPEDIA a Child Neurology Knowledge Environment

Kenneth Mack, MD, PhD

The International Child Neurology Association (ICNA) is an organization founded to help foster international communication and collaboration between child neurologists. Membership in the organization allows receipt of a yearly book from the International Review of Child Neurology Series, and the association holds meetings once every two years. The next meeting will be in Cairo Egypt in 2010.

One very successful international effort of ICNA has been the ICNAPedia website (www.icnapedia.org). Dr Biju Hameed of Bristol,

England is the Webmaster, and Dr. William Logan of Toronto is the Editor-In Chief. This website features daily news stories of interest to the child neurology community, a calendar of International child neurology related meetings, a journal watch, a collection of international guidelines, and other features. Full features to the site are available with a membership to ICNA, however, many aspects of the sites are available to non-members as well.

For information about joining ICNA, please see the website.



COMMITTEE UPDATES

Legislative Affairs

Bennett Lavenstein, MD, Chair

As you know, the political scene in Washington has become even more challenging this year, uniquely so this fall with the dramatic confluence of national and international economic trends. Nonetheless, the LAC can point to a number of successful outcomes. Since November 2007 the CNS has signed on and supported major Congressional initiatives on a variety of issues. Chief among the highlights for which our committee was significantly involved was the passage and subsequent signing into law in April of the Newborn Screening Saves Lives Act, authorizing newborn screening programs at HHS through 2012. The CNS continues to participate at the HHS Committee meetings on Universal Newborn Screening.

In May an agreement by FEMA to establish a National Committee on Children in Disasters was formed. Congressional hearings were opened in July on drug pricing, including treatment of infantile spasms. In October there was passage of the Mental Health Parity Act; the CNS worked with the Mental Health Liaison Coalition for five years to support enactment; the mental health parity legislation was included in the \$700 billion bailout legislation.

In 2008 the issue of a reduction in Medicare reimbursement by 10% loomed and an SGR fix with delayed implementation was effected; this, of course, ultimately needs to be resolved. The CNS joined with the American Heart Association in their meetings with the Directors of NINDS and NHLBI to discuss FY 09 funding for stroke programs. Advocacy efforts included letters to Congress in support of increased funding to NIH in the amount of \$30 billion. CNS joined with the AAP to support Health Care Legislation urging \$10 million for CDC to establish a child abuse and neglect network. The CNS has along with AMA urged the CMS (Centers for Medicare Services) to be reasonable with implementation of E-prescribing rules.

With regard to Epilepsy, the CNS along with the AAN and EFA urged the FDA not to place a blackbox warning on medications for seizure disorders, a topic with which all of you are familiar. With regard to Medicaid funding, in 2008 President Bush vetoed the SCHIP expansion; this will be re introduced in 2009 by Senator Max Baucus, Chairman, Senate Finance Committee. I am especially pleased to note that a primary goal of addressing problems in the workforce as identified previously by Drs James Bale, Mike Painter and Steven Ashwal is moving forward. Originally, activities centered solely on the needs of child neurology using Senate appropriation monies to the CNS thru HRSA grants. This past year we took the lead in forming an Ad Hoc Pediatric Workforce Working Group comprised of representatives from CN, other medical and surgical pediatric subspecialties, and the participation of the AAP and the American Academy of Child and Adolescent Psychiatry. It is the goal of this combined group to publicize and address workforce issues and draft recommendations for solution. On October 9, 2008, in a specially convened meeting, several of us joined colleagues from the Pediatric Workforce Working Group to meet with Senate Finance Committee staff to discuss workforce issues. As a result, in the 2009 session of Congress, we anticipate that a Congressional hearing will take place, with a committee receptive to suggestions for the Medicare GME fix, and that a list of items related to the shortage issue will be submitted for a GAO (General Accounting Office) study.

CNS members can be justly proud of all the activities in which we have been involved. Special thanks are due Dr Martina Bebin, who traveled to Washington to meet with us at the Institute of Medicine to discuss workforce studies. None of these successes or any of the above endeavors would have been possible without the dedication and expertise demonstrated by Judi Buckalew our advisor, lobbyist, loyal friend and partner in the health care law firm of Powers, Pyle, Sutter and

COMMITTEE UPDATES

Legislative Affairs

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Verville. Her knowledge has allowed us to navigate the halls of Congress in the health care arena and meet with appropriate people giving us access to many opportunities to ensure legislative success.

I want to thank all the members of the committee for their input and advice as we have sought their help throughout the year. We look forward to continuing the momentum gained for 2009. Remember: "Even if you do not take an interest in politics, politics will take an interest in you."

COMMITTEE UPDATES
Training**Marc C. Patterson, MD &
Stanley Johnsen, MD**

One June 18 and 19, 2008 the ABPN convened a Task Force Meeting entitled "Developing an Educational Curriculum for In-Residency Evaluators". Larry Faulkner, the ABPN EVP, introduced the meeting. He explained that the ABPN recognizes that the changes in the certification process will place a larger assessment burden on program directors and teaching faculty. He also noted that most faculty members receive little or no formal training in assessment of residents.

Eric Holmboe, M.D., Senior Vice President for Academic Affairs and Quality Research, American Board of Internal Medicine, spoke to the topic "The Importance of Faculty Development in Effective Evaluation". His presentation reviewed the evidence supporting the need for faculty to observe residents during training, current challenges in faculty evaluation and observation skills, and potential faculty training approaches.

The data reinforced the importance of clinical skills in making correct diagnoses (to no-one's surprise), and emphasized that faculty observation of trainees was critical in the development of such skills. The studies presented suggested that standard resident assessments by faculty were suboptimal; several studies suggested that formal training improves faculty assessments. The techniques

explored included Behavioral Observation Training, Performance Dimension Training, Frame of Reference Training and Direct Observation of Competence Training.

Subsequently, participants in the meeting met to establish a steering committee structure with appropriate representation of professional organizations, to develop educational objectives for in-residency evaluators, and to develop alternative methods for delivering the educational curriculum with timelines for completion.

The group reached consensus that the steering committee will include representatives of the CNS and PCN (amongst others), and that the leadership will comprise one (adult) neurologist and one child neurologist (from the PCN). The steering committee will seek to establish standards of required knowledge meeting ACGME, RRC and ABPN standards, and for the skills and attitudes required of successful trainees. The group will also review the assessment tools available and means of delivering the educational curriculum to assessors.

We encourage CNS members to make their opinions known to our professional organizations to ensure that the broad interests of the child neurology community of physicians and patients are strongly represented in this process.

CNS ANNUAL MEETING

Membership Committee

(as of October 15, 2008)

Active	1144
Affiliate	22
Emeritus	125
Honorary	1
Junior	241
TOTAL	1533

New CNS Members

(Approved by CNS Membership Committee between
October 15, 2007 – October 15, 2008)

Brian Aalbers Junior	Beatriz Gonzalez-Abella . . . Junior	Adenike Opaleke Active
Hoda Abdel-Hamid Active	Mary Jo Harbert Junior	Juliann Paolicchi Active
Farida Abid Active	Uzma Hasan Junior	Ann Parker Active
Satish Agadi Junior	Takijah Heard Junior	Sonia Partap Active
Hamza Alsayouf Junior	Eugenia Ho Junior	Sonal Patel Junior
Daniel Arrington Junior	Jennifer Huffman Junior	Jurriaan Peters Junior
Robert Avery Junior	Richard Hussey Active	Anna Pinto Junior
Rubina Bakerywala Junior	Ann Hyslop Junior	Carolyn Pizoli Junior
Kristin Baranano Junior	Bradford Ingram Junior	Karen Powers Junior
Leslie Benson Junior	Cristian Ionita Active	Vijay Ramaswamy Junior
Stefanie Berry Junior	Islam Islam Active	Randal Richardson Junior
Liya Beyderman Junior	Christopher Jackman Junior	Emilie Riou Junior
Joanna Blackburn Junior	Badal Jain Junior	Jennifer Rubin Junior
Jeffrey Bolton Junior	Susy Jeng Junior	Muhammad Salim Junior
John Brandsema Junior	Teng Ji Junior	Francis Samonte Junior
Shirley Bunch Active	Louisa Kalsner Active	Shifteh Sattar Junior
Javier Cardenas Junior	Cynthia Keator Junior	Cynthia Sharpe Active
Paul Carney Active	Kashyar Khodabakhsh Junior	Elisabeth Simard Tremblay . . Junior
L. Tyler Chapin Junior	Gogi Kumar Active	Karen Skjei Junior
Melissa Chung Junior	Douglas Larsen Junior	Christopher Smyser Junior
Melissa Cirillo Junior	Marcus Lee Junior	Ariane Soldatos Junior
Ryan Coates Junior	Ryan Lee Junior	Olufemi Soyode Junior
Mario Coleman Junior	Christopher Lee-Messer Junior	Jayasri Srinivasan Junior
John Cordie Junior	Genevieve Legault Junior	Tanya-Marie Sweeney Junior
Alexa Craig Junior	Mamon Maiteh Junior	Christina Szperka Junior
Karen Cruz-Rodriguez Junior	Amit Malhotra Active	Daniel Tarquinio Junior
Jahannaz Dastgir Junior	Jennifer Markowitz Junior	Tomo Tarui Junior
Lamar Davis Junior	Sharon McDaniel Junior	Janet Teodori Active
David Dennison Active	Jennifer McGuire Junior	Asit Tripathy Junior
Jay Desai Junior	Shannon McGuire Active	Hannah Tully Junior
Asif Doja Active	Hugh McMillan Junior	Alpa Vashist Active
David Dredge Junior	John Millichap Junior	Vivek Veluchamy Junior
Steven Ehrreich Active	Dararat Mingbunjerdsuk . . . Junior	Judith Weisenberg Junior
Patricia Evans Active	Shade Moody Junior	Nicole Williams Junior
Tim Feyma Junior	Bethanie Morgan-Followell . . Junior	Lily Wong-Kisiel Junior
Lindsey Foy Junior	Jared Mott Junior	Carter Wray Junior
Corina Francu Junior	Andrew Mower Active	Wenlang Xia Active
Stephen Fulton Junior	Amy Newmeyer Active	Lucyna Zawadzki Junior
Vincent Gibbons Active	Arthur Nwaubani Junior	Ari Zeldin Junior
Hilda Goldberg Active	Evelina Okouneva Junior	Michael Zimbric Junior
Alana Golden Junior	Heather Olson Junior	Victoria Zolot Junior