Regula and Kennedy Recognized for Support of Biomedical Research

Congressmen Ralph Regula (R-Ohio) and Patrick J. Kennedy (D-RI) received the 2002 Society for Neuroscience Public Service Award on April 24 at a Capitol Hill reception. Both were honored for their unwavering support of biomedical research, and Kennedy, in particular, for his support of those with mental illnesses.

“It is striking to me that we underfund the National Institute of Mental Health when the World Health Organization says that mental illness is the leading cause of disability in the world,” Kennedy said. “Like cancer or AIDS, mental illness shatters the lives of Americans.” He urged neuroscientists to be politically active.

Regula, who chairs the House Appropriations Subcommittee on Labor, Health and Human Services and Education (LHHS), has been very instrumental in overseeing the progress of the five year doubling plan for the National Institutes of Health (NIH) by 2003. This year, the Bush Administration’s request of $27.3 billion for NIH will complete the final phase of the effort. Regula’s subcommittee is responsible for funding NIH and the Centers for Disease Control.

2002 Elections for Officers, Council

Candidates who are running for officer and councilor positions in the 2002 Society for Neuroscience election appear in this issue. Further biographical information about each candidate, including educational background, research interests, service positions held and organizational memberships can be found on your ballot, which was mailed to Society members in May.

Your vote helps ensure that your interests are represented in all Society affairs. Please mail the completed ballot to Specialty Association Services in Sandy Spring, Md., by Friday, June 14, 2002. Ballots postmarked after that date will not be counted.

Election results will be announced in the July–August 2002 issue of the newsletter.

President–Elect

Carol Barnes
Prof., Depts. of Psychology and Neurology and ARL Division of Neural Systems, Memory and Aging, Univ. of Arizona, Tucson.

Story Landis
Scientific Director, Division of Intramural Research, NINDS, NIH, Bethesda, Md.

continued on page 2
2002 Election Candidates

Treasurer-Elect

- **Richard Huganir**
  Investigator, HHMI; Prof., Depts. Neuroscience and Biochemistry, The Johns Hopkins Univ. School of Med.

Secretary

- **Pat Levitt**
  Director, John F. Kennedy Center for Research on Human Development and Prof. of Pharmacology, Vanderbilt Univ.

- **Virginia M.-Y. Lee**
  John H. Ware III Prof. of Alzheimer’s Disease Research, Prof. of Pathology and Lab. Medicine, Univ. of Pennsylvania School of Med.

- **David Van Essen**
  Edison Prof. of Neurobiology and Department Head, Anatomy and Neurobiology, Washington Univ. School of Med.

Councilors

- **Thomas Albright**
  Prof., The Salk Inst.; Investigator HHMI; Adjunct Prof. Neurosciences and Psychology, UCSD; Director, Systems Neurobiol. Labs and Sloan-Schwartz Ctr. For Theoretical Neurobiol., Salk Inst.

- **Joanne Berger-Sweeney**

- **Hollis Cline**
  Marie Robertson Prof., Cold Spring Harbor Lab. Prof., Watson School of Biological Sciences.

- **Carol Colby**
  Associate Prof., Dept. Neuroscience, Univ. of Pittsburgh and Ctr. for the Neural Basis of Cognition, Univ. of Pittsburgh and Carnegie Mellon Univ.
I want to take this opportunity to update the membership on several important initiatives under development in the Society. These initiatives reflect the vitality within the Society, and the important role that scientists have to play within our public discourse.

At its April meeting, the SFN Council voted to develop a more active public stance on stem cells and animal research, and to join an advocacy coalition to support science research issues.

On stem cells, SFN has begun to take a more engaged role. First, on behalf of the Society, I have sent a letter to all senators supporting Congressional legislation that permits stem cell research for medical purposes. The letter states the Society’s firm opposition to reproductive cloning, and also opposes Congressional efforts to ban all stem cell research. Second, in consultation with several committee chairs, Council is developing a SFN policy statement supporting stem cell research, based on its promise for relieving the suffering of those affected by neurological disorders. Third, we will be sending a legislative alert to the membership, so that you may contact your senators on this crucial upcoming vote. Copies of the letter and policy statement are posted on SFN’s Web site.

In light of the increasingly aggressive activities of animal rights activists and the importance of animals to neuroscience research, SFN believes it should be more active in supporting the responsible use of animals in research. Council will be working with the Committee on Animals in Research to identify concrete ways in which SFN can do this effectively.

Finally, SFN decided to join the Joint Steering Committee for Public Policy (JSC), which is a coalition of scientific societies that advocate for scientific research and policy. JSC’s board, chaired by former NIH Director Harold Varmus, meets twice a year to address policy issues; SFN will designate two members to serve on the JSC Board. JSC also supports the bi-partisan Congressional Biomedical Research Caucus, which advocates for biomedical research and hosts leading researchers for regular briefings for members of Congress and their staff on progress in basic research and how it affects medicine. To learn more about JSC: www.jspp.org.

At the Society’s central office, Marty Saggese, our new executive director, has implemented several organizational changes. The most visible change is to establish five divisions headed by senior directors who report to the executive director. The next newsletter will describe these changes in more detail.

Finally, I am especially pleased to report that Council has initiated the first formal strategic planning effort undertaken by the Society. The broad objectives of this process are to assure the organization’s future membership base, maintain its intellectual vitality, expand its programmatic scope and enhance its financial position. While Council feels that the Society has been highly successful since its establishment in its core activities and programs, the time seems right for a forward-looking assessment of the organization’s programmatic strengths and capabilities in relation to the prospective needs and priorities of our members.

Council has engaged a consultant, McManis & Monsalve Associates, to assist with information gathering and with facilitating the discussion process within the Society over the coming months. The intent is to produce a concise, coherent document that can guide Council and staff decisions and actions going forward.

As part of the strategic planning process, in June the Society will be issuing a web-based membership survey. The survey will ask our members to rate the importance of various Society programs and benefits as well as the quality of its services. A Society as broad and influential as SFN has the potential to increase its success and effectiveness by having a clear, focused plan to help guide us into the future. It is extremely important for our members to be involved in clarifying the Society’s goals and initiatives with the membership survey, and I encourage all members to participate in the survey when it is posted.
SFN Annual Meeting on the Web!

It’s time to start planning for this year’s Neuroscience 2002 in Orlando, and look no further than the Society Web site for the most up-to-date information! Check out www.sfn.org/AM2002 for a preliminary schedule of events, lecture and symposia descriptions, and information on registration and housing.

**Schedule changes for 2002:**
The Grass Lecture will be held Monday, Nov. 4 from 4:15–6:15 pm (time change only).

Special Interest Socials will take place Monday and Tuesday, Nov. 4 and 5 (previously held on Tuesday and Wednesday).

The Business/Members Meeting will be held on Wednesday, Nov. 6 from 6-7pm (previously held on of Monday).

The Graduate Student/Postdoc Reception will be held Wednesday evening, Nov. 6 (previously held on Monday).

**Hotel Reservations: New Requirement in 2002**

For this year’s annual meeting in Orlando, attendees must register for the meeting before securing hotel reservations through the Society’s official hotel block. This change will eliminate the 2,000+ reservations typically made on a speculative basis that are then cancelled too late to allow SFN to accommodate those genuinely interested in attending the meeting. The requirement will be effective July 15–September 3. On September 3 it will be lifted.

The annual meeting advance registration and hotel reservation service will open on the SFN Web site on Monday, July 15. Each attendee will receive a unique registration confirmation number, which will be required in order to make a hotel reservation. Online registration and hotel reservation is strongly encouraged and will be given priority over registration and reservations submitted via phone, mail, or fax.

**Annual Meeting Registration Fees**

Advance registration opens Monday, July 15 on the SFN Web site. This year you must be registered in order to secure a hotel room from the official block.

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<tr>
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<th>Advance Open July 15–Oct. 1</th>
<th>On-site Online Opens Oct. 8</th>
<th>On-site Opens Nov. 2</th>
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<tr>
<td><strong>Member</strong></td>
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<td><strong>Student Member</strong></td>
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**Important Dates**

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<tr>
<th>Date</th>
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<tr>
<td>July 15</td>
<td>Attendee advance registration opens.</td>
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<td>Aug. 23</td>
<td>Recommended advance registration receipt deadline for non-North American attendees to ensure timely receipt of name badge and program (if ordered).</td>
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<td>Sept. 6</td>
<td>Receipt deadline for advance registration by mail, fax and phone.</td>
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<td>Oct. 1</td>
<td>Receipt deadline for online advance registration.</td>
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<tr>
<td>Oct. 8</td>
<td>On-site online annual meeting registration opens and continues through the annual meeting.</td>
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<td>Oct. 15</td>
<td>Last day to cancel annual meeting registration and receive refund.</td>
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<tr>
<td>Nov. 2</td>
<td>On-site registration opens at the convention center.</td>
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<td></td>
<td><strong>Hotel Reservations</strong></td>
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<tr>
<td>July 15</td>
<td>Hotel reservation processing begins for advance registrants.</td>
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<tr>
<td>Sept. 3</td>
<td>Advance registration requirement to make hotel reservations is lifted.</td>
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<tr>
<td>Sept. 23</td>
<td>Last day for students to make hotel reservations from the special student block.</td>
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<tr>
<td>Oct. 2</td>
<td>Last day to make hotel reservations.</td>
</tr>
<tr>
<td>Oct. 25</td>
<td>Last day to cancel hotel reservations and receive deposit refund.</td>
</tr>
<tr>
<td>June 3</td>
<td>Nominations deadline for chapter graduate student travel awards, minority travel fellowships and Young Investigator Award.</td>
</tr>
<tr>
<td>June 14</td>
<td>Recommended date to submit new member and change of membership status applications in order to register as a member when registration opens on July 15.</td>
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The Society’s Education Committee and Committee on Neuroscience Literacy (CNL) organize a number of workshops each year during the annual meeting to promote neuroscience education. Preregistration is required for all workshops. The deadline to register is Friday, September 20. See www.sfn.org/workshops for more details.

2002 Neurobiology of Disease Workshop
Sat., Nov. 2  8:00 am–5:00 pm
“Stem Cells for Neurological Disease”
Stem cells represent a broad category of cellular vectors now being investigated for their potential to mediate cell replacement in the setting of injury, disease and degeneration. This workshop will cover the current state of neural stem and progenitor cell biology, with a particular emphasis on identifying appropriate therapeutic strategies and disease targets for which progenitor cell-based therapy might be effective.

Bioinformatics 2002: A Neuroscientist’s Guide to Tools and Techniques for Mining and Refining Massive Data Sets
Short Course #1
Sat., Nov. 2  7:30 am–5:00 pm
Bioinformatic tools, tactics and resources have a profound impact on virtually all facets of neuroscience. This short course will help you learn more about mining, refining, and integrating online and in-lab resources to increase the pace and quality of your research.

The full day course consists of short lectures by the faculty followed by informal workshops, and includes a syllabus booklet and matched online resources.

The Principles and Practice of Modern Light Microscopy
Short Course #2
Sat., Nov. 2  8:00 am–5:00 pm
Ever since Ramon y Cajal’s use of the light microscope to unravel the intricacies of the brain, neuroscience has depended on optical imaging as one of its core technologies. At the beginning of a remarkable transformation, optical microscopy is reinventing itself as a thoroughly modern endeavor that is certain to play a central role in neuroscience in the post-genomic era.

This short course will provide an introduction to modern microscopy. Presentations will be aimed at biologists (no differential equations!).

Hands-On Workshop: Call for Proposals
Sat., Nov. 2  4:00 pm–7:00 pm
Promote Neuroscience Literacy!
The Committee for Neuroscience Literacy (CNL) is soliciting proposals for workshops focused on sharing successful K–12 neuroscience activities with fellow neuroscientists and K–12 teachers. Each session will last 90 minutes and be given twice.

Submit your proposals to Cynthia.L.Phelps@uth.tmc.edu. Submission details at www.sfn.org/workshops. Questions? Cynthia Phelps (713) 500-3926.

How To Take Neuroscience into Schools
Sun., Nov. 3  1:00 pm–3:00 pm
“Funding Your Science Education Programs”
A variety of initiatives help raise the performance of American students in the sciences. In this workshop, representatives from NIH, NSF and HHMI will provide background on their programs and the kind of proposals that they are looking for from K–12 schools and higher education institutions. An open discussion will follow on the tools we need to accelerate the involvement of more scientists in K–12 education and inspire more students to consider science as a career.

Workshop for K–12 Teachers and Neuroscientists
Sat. Nov. 2  9:30 am–3:00 pm and Sun., Nov. 3  confer with neuroscience partner for time.
Call for Partners!
Are you a neuroscientist who wants to learn more about how neuroscience fits into K–12 curricula? This workshop is designed to bring neuroscience and education together! Neuroscientists will partner with K–12 teachers to foster dialogue about neuroscience education, research and possibilities for teacher-scientist collaborations. Partners will visit neuroscience laboratories, help lead a hands-on session with human brains and attend a luncheon seminar. Time commitment is minimal and flexible.

Neuroscientists or teachers interested in participating in this year’s workshop should contact Paul Aravich at Eastern Virginia Medical School (aravicpf@evms.edu) or James Hutchins at University of Mississippi Medical Center (jhutchins@anatomy.umsmed.edu) for more information.

Short Course for High School Students
Mon., Nov. 4  8:30 am–2:30 pm
Precollege science students from the Central Florida area will be invited to attend this one-day short course. Included will be presentations by prominent neuroscientists, a panel discussion, a tour of the exhibits and poster sessions, and a sit-down lunch. The course will introduce students to neuroscience research, the life of a neuroscientist and the impact research has had on our understanding of the brain.

Guides Needed for Students
Contact Reha Erzurumlu at rerzur@lsuhsc.edu (504-568-4016), James Herman at jpherman@psychiatry.uc.edu (513-558-4813), or Marcie Pospichal at timandmarci@myexcel.com.
As Director of the National Institute of Nursing Research (NINR), and previously as Acting Director of the National Institute of Neurological Disorders and Stroke, I have witnessed impressive gains toward improved health due to the development and testing of basic and clinical neurological findings. Although nursing science is relatively new, progress has been made. NINR’s unique research focus is primarily directed toward reducing the impact of neurological disorders by controlling symptoms and improving quality of life.

**The Biology of Pain**

NINR’s basic and clinical pain research is an important element of our neuroscience portfolio. In testing the acute pain relief of Kappa opioids, researchers set new directions for pain research by discovering the influence of gender on the effectiveness of this therapy; women achieved satisfactory relief, while men did not. This important finding stimulated further studies about the influence of sex hormones on pain pathways and on therapies to improve pain relief for both women and men. The biological relationships between pain and the immune system, and the effects of pain across age, ethnic and cultural groups, are also receiving emphasis. NINR’s research on pain has provided an important base for end-of-life research, where pain is a typical symptom.

**Limiting the Impact**

NINR research focuses on slowing the advancement of neurological disorders, while improving peoples’ capabilities to live their lives as well as possible. Animal research aimed at characterizing inflammatory and thrombotic blood cell interactions during reperfusion after a stroke could potentially lead to therapies limiting brain cell injury and disability. Other findings point to the role of estrogen in salvaging brain tissue damage from stroke, with males requiring a more potent single estrogen injection, and females requiring long-term, low level therapy.

Research is producing results that improve the quality of life of patients with chronic disorders such as epilepsy and multiple sclerosis. Factors relating to the behavioral impact on families and children of the type, frequency and severity of epileptic seizures are being studied. Multiple sclerosis and post-polio syndrome studies focus on health promotion including nutrition, exercise, and management of such symptoms as fatigue, limited mobility and stress. Different ethnic and cultural populations are being tested.

**Delaying Cognitive Impairment**

The increasing number of older people in our population is associated with an increase in dementias and cognitive impairment. This represents a particular challenge to the health care system and to society: how to maintain Alzheimer’s patients’ physical and cognitive functioning as long as possible, while reducing agitation and disruptive behaviors and demands on caregivers. NINR studies, for example, include testing the effects of bright light alone, and in combination with melatonin or white noise to decrease agitation. Other research directions include studying the effects of exercise on mobility and self-care in nursing home patient populations; on onset, rate and slowing of cognitive impairment; and on the enhancement of caregivers’ skills and confidence.

**Recent findings show chronic partial sleep deprivation and circadian rhythm changes have negative effects on healthy medical and shift workers and parents of small children.**

**Sleep and Well-Being**

NINR’s sleep research program, directed at both healthy and chronically ill populations, focuses on management of sleep disturbances. Studies are under way to determine the cumulative effects of sleep deprivation and the minimum amount of sleep needed for stable waking functions. Recent findings show chronic partial sleep deprivation and circadian rhythm changes have negative effects on healthy medical and shift workers and parents of small children. Results also show that sleep debt affects adolescents’ ability to perform scholastically and contributes to accidents. Moreover, for patients with disorders such as Alzheimer’s disease, fibromyalgia, and Parkinson’s disease, NINR research found that sleep disturbances intensify other symptoms such as agitation and pain.

These areas of research represent a sampling of the NINR neuroscience research portfolio. We look forward to expanded efforts that include productive research collaborations within additional areas of the neurosciences. Clearly the challenges and opportunities are here for us to make a significant difference to the health of our nation’s people.
Brain Awareness Week

Brain Awareness Week 2002

The week of March 11–17, 2002 marked the worldwide observance of BAW, sponsored by the Society for Neuroscience and the Dana Alliance for Brain Initiatives. In addition to activities in the United States, events took place world wide. Health professionals in Maracaibo, Venezuela organized workshops for schoolteachers. Clinicians, high school professors, and university students in Montevideo, Uruguay, attended a conference on glia relevance in brain diseases. Every March Society for Neuroscience members from across the globe work to create interest in brain and nervous system research by visiting classrooms, giving lectures and opening their labs up for visitors to celebrate Brain Awareness Week (BAW).

Many of the BAW activities that are aimed at elementary, junior high and high school audiences serve to develop a budding interest in neuroscience for young people. Many school-age children decide to study neuroscience in college after attending BAW events.

Society for Neuroscience members also have branched out to wider audiences, holding evening lectures for members of the public and visiting nursing homes to speak about the latest advances in Alzheimer’s disease and Parkinson’s disease.

The BAW campaign also serves to inform legislators about the importance of supporting neuroscience research, investing in higher education and contributing to technological developments to combat diseases of the brain and nervous system. To accomplish this, neuroscientists meet with their legislators to discuss the many benefits of this research.

BAW in Washington, DC

Malcolm X Elementary School in Washington, DC engaged students with group and individual projects, and a hands-on demonstration about the brain and its functions by neuroscientist Paul Aravich of the Eastern Virginia Medical School.

Georgetown University’s Karen Gale hosted seventh graders from Hardy Middle School with an introductory lecture on the brain. The students then went “hands-on” at various labs where, for example, they were allowed to hold a cow and rat brain.

Also during BAW, Donald Price visited the SFN office to present his research on neurological diseases and field questions from the staff.

International Brain Bee

The International Brain Bee, organized by Norbert Myslinski, University of Maryland Baltimore Campus Dental School, was held on March 16, 2002, with high school students competing locally and then in a final competition. First-place winner, Marvin Chum, of Earl Haig High School in Toronto, Canada, answered every question correctly to win a $3,000 scholarship.

University of Washington Haiku Contest

Students in kindergarten through grade 12 submitted 726 poems as part of the University of Washington’s nationwide poetry contest, organized by Eric Chudler.

Brain, Brain you are my everything,
You are the Master
Control Center of my body.
You control my hands, faces,
Eyes, wrist, lips, jaw, tongue, foot.
You control all of me.
Without you I could do nothing.
I thank you brain, Thank you.
Thank you for everything.

by Shaniqua Flythe, Third Grade,
Malcolm X Elementary School
Washington, DC

Synapses sparking
Neurons connecting my thoughts
Understanding dawns.

by Jessie G.,
a tenth grader in St. Peters, MO

2002 Brain Awareness Week Writings
Updates From Mexico, Paris and IBRO

Short Course In Mexico
The Society for Neuroscience and the Mexico Chapter presented a full-day short course, “The Principles and Practices of Modern Light Microscopy,” on March 4 and 5 in Mexico City. This course, which was also presented at the annual meeting in New Orleans as Short Course 2, provided an introduction to modern microscopy, with the aim of demystifying the technology behind contemporary optical methods. The course organizer was Jeff Lichtman, Washington University School of Medicine. Faculty included George Augustine, Duke University School of Medicine, and José Conchello, Washington University.

The course was hosted at the Universidad Nacional Autonoma de Mexico (UNAM) Instituto de Fisiologia Celular by the Mexico Chapter President Leon Cintra, and Arturo Hernandez from UNAM. Both days of the short course had 95 students in attendance. The course was followed by lab demonstrations by some of the local faculty from Mexico City, including Hernandez and other visiting scientists. On Wednesday afternoon, Augustine and Conchello attended the lab demonstrations, which helped students see the things they had learned put to use in the lab.

FENS 2002: Paris
The Federation of European Neuroscience Societies (FENS), hosted by the Société de Neurosciences, will be held in Paris, July 13–17, 2002. A larger crowd than any previous European meeting is expected. More than 300 grants have been given to young scientists coming from Europe and the United States. The FENS award in recognition of outstanding and innovative neuroscience studies will be awarded during the meeting. FENS organizes activities such as meetings, schools, courses and workshops.

The summer and winter schools take place in the odd years when there is no forum meeting planned. Other events are organized in collaboration with related organizations such as IBRO and EMBO. These schools attract many students, young PhD or post-doctoral neuroscientists from different European countries.

Previous school programs included both winter and summer sessions in 1999 and 2001 on topics ranging from “Neurodegenerative Diseases” (Isola d’Elba, Italy) and “Neuronal Representations” (Kitzbühel, Austria) to “Mouse Transgenics” (Zürich, Switzerland). The FENS school committee is organizing the program for 2003.

For further information about FENS programs and activities, please check our Web site: www.FENS.org.

IBRO News
by Albert J. Aguayo, Secretary-General, IBRO

Neuroscience education was the focus of the executive committee’s bimonthly teleconference held on February 19 to which John Hildebrand (Tucson) and Sigismund Huck (Vienna) were invited as chair and secretary of IBRO’s school program. In 2001, IBRO supported eight schools in various parts of the world. These enrolled 178 students and an equivalent number of faculty members. Most of the $178,000 budget went toward travel and accommodation for students from poor countries. The visiting lecture team program (VLTP), directed by John Nicholls (Trieste), visited India, Cuba, Vietnam and Uruguay, and added some 200 students to IBRO’s teaching accomplishments during the past year. In 2002, the number of IBRO Schools will increase to 11 and VLTP courses are planned for Iran, Argentina, Poland, China and Peru.

This summer, IBRO will launch its IBRO Alumni initiative aimed at enhancing interactions with students who have participated in past schools and VLTP courses. Meetings of the alumni are planned for July 13 in Paris and November 4 in Orlando. Please see the IBRO Web site at www.ibro.org.

This summer, IBRO will launch its alumni initiative aimed at enhancing interactions with students who have participated in past schools and visiting lecture team program courses.

Nominations closed last month for the election of one-half of the members of the IBRO regional committees in Africa, Latin America, Eastern Europe and Asia-Pacific. In all, 50 candidates were nominated for the 16 open positions. All IBRO’s affiliated societies entitled to propose candidates participated in this electoral process, which encompassed neuroscientists from 31 organizations in 32 countries within the four regions. IBRO’s governing council elected by ballot the following new members:

African Regional Committee
W. Benjelloun (Morocco)   Najoua Miladi (Tunisia)
Y. Ben-Ari (Egypt-France)  Vivienne Russell (South Africa)

Latin American Regional Committee
Horacio Vanegas (Venezuela)  José Bargas (Mexico)
Rafael Linden (Brazil)   Jorge Horacio Medina (Argentina)

The results of the elections in Eastern Europe and Asia-Pacific will be known in May.
The ALS Association: Leading the Search for a Cure
by Mike Havlicek, ASLA President

The ALS Association (ALSA) is the only national not-for-profit health agency dedicated solely to the fight against amyotrophic lateral sclerosis (ALS), a fatal, neurodegenerative disease that attacks nerve cells and pathways in the brain and spinal cord. When these cells die, voluntary muscle control and movement die with them. Patients in the later stages of the disease are totally paralyzed, yet in most cases, their minds remain sharp and alert. ALS struck Yankee Hall of Famer Lou Gehrig in 1939, resulting in the term Lou Gehrig's disease.

Every day on average, 15 people are newly diagnosed with ALS—more than 5,000 people per year. As many as 30,000 Americans may currently be affected by the disease, and the average life expectancy is two to five years from time of diagnosis.

Research and Clinical Care
ALSA is the largest private source of funding for ALS-specific research in the world. Since 1991, it has awarded some $24 million to fund research seeking to identify the cause, means of prevention and cure for ALS.

In May 2000, ALSA announced The Lou Gehrig Challenge, an aggressive initiative to identify the most promising directions in ALS research and therapy. To date, 23 new research projects have been initiated through the Challenge, and $7 million has been raised of the $25 million goal.

ALSA also is supporting 70 investigator-initiated scientific research projects and regularly convenes workshops to examine new trends in ALS research. The clinical management research program focuses on managing the care of ALS patients in areas such as nutrition, quality of life, and psychosocial needs. Currently, ALSA is completing a major project on improving end-of-life care for patients with ALS as part of a Robert Wood Johnson Foundation Workgroup.

The nationwide network of 16 certified ALSA Centers provides state-of-the-art, multidisciplinary ALS care and services with an emphasis on hope and quality of life. To become certified as one of these centers, an ALS clinic must achieve national prominence, meet rigorous clinical care standards and pass a comprehensive site inspection.

Serving the Community
Across the country, ALSA’s 35 chapters provide localized support, referrals and resources to help patients and their families. One ofALSAs most popular events is its annual Walk to D’Feet ALS. In 2001, more than 50,000 people in 57 cities participated in the walk, raising over $4 million.

The ALS network plays a lead role in advocacy for increased public and private support of ALS research. The advocacy office in Washington, DC, has raised the profile of ALS at the White House, among members of Congress and within federal agencies such as NIH. In December 2000, ALSA’s efforts paid off with a historic victory for the ALS community: Congress voted to eliminate the 24-month waiting period for Medicare coverage for people with ALS. This waiver will provide them access to the care they need in a timely manner.

May is ALS Awareness Month and the time of the year that ALSA leads a contingent of ALS patients and advocates to Capitol Hill for ALS Advocacy Day. In 2001, over 550 people visited Washington, DC; this year we expect even more.

ALSA is launching a nationwide public awareness campaign, “Covering All the Bases with ALSA,” May 18–19. World Series co-MVP Curt Schilling and his wife Shonda are teaming with ALSA to raise awareness for those living with ALS and searching for a cure. Every home run hit will contribute to the work of the organization.

Visit www.alsa.org for more information, or call (818) 880-9007. Information and Referral Line: (800) 782-4747.
Good morning Mr. Chairman and members of the subcommittee and thank you for the opportunity to appear before the subcommittee. I am Dr. Fred Gage and I currently serve as the president of the Society for Neuroscience. Our organization, with a membership of nearly 30,000 basic and clinical researchers, is the largest scientific organization in the world dedicated to the study of the brain, spinal cord and nervous system. The study of neuroscience provides the scientific foundation for the medical specialties of psychiatry, neurology and neurosurgery, but has a broader application in numerous other medical specialties. In addition, fundamental brain research illuminates the development and function of the brain, that organ that makes us uniquely human. Aside from my work at the Society, I am a professor at The Salk Institute for Biological Studies. The Salk Institute is a private, non-profit, research organization located in La Jolla, California. The research conducted is fundamental research in biology, as it relates to health. We study such problems as the organization and operation of the brain, the control of gene expression, and the molecular origins of cancer, AIDS, and other diseases. My particular area of research is degeneration and regeneration in the adult central nervous system.

We are pleased to have the opportunity to discuss researchers’ efforts to improve the quality of life for millions of individuals. We recognize that this work would not be possible without the subcommittee’s strong commitment to biomedical research, further demonstrated by Congress’s resolve to complete the doubling of the National Institutes of Health (NIH) budget this fiscal year.

The above statistics only touch on the impact neurological diseases have had on American families. The disease burden is far greater and affects millions of people in a multitude of different ways. For example:

- Parkinson’s disease is the second most common neurodegenerative disease affecting older people in the United States. The annual U.S. cost of Parkinson’s disease is estimated to be $24.5 billion.
- Alzheimer’s disease is the most common cause of dementia among people age 65 and older. Scientists estimate that up to 4 million people currently suffer with the disease and approximately 360,000 new cases will occur each year. The annual cost of caring for Alzheimer’s patients is estimated to be as much as $100 billion.

Mr. Chairman, the statistics are even more compelling when understood in the context of the daily lives of once-ordinary people who suffer from such diseases.

Mr. Chairman, the statistics are even more compelling when understood in the context of the daily lives of once-ordinary people who suffer from such diseases.

Investments in NIH have led to an exponential growth in knowledge as information from one development spurs another. This knowledge will help us understand the biological basis of disease and, in turn, develop strategies to prevent, diagnose, treat, and finally cure such diseases.

Neuroscience Research Center
We are particularly pleased with progress on the John Edward Porter Neuroscience Research Center, and thank the subcommittee for providing $26 million in the fiscal year 2002 budget to fund this important facility. The Neuroscience Research Center will house research programs conducted by intramural neuroscience researchers from nine institutes, including those of the National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute of Mental Health (NIMH). Neuroscience thrives on multidisciplinary research. This new center will facilitate further collaboration on these programs allowing researchers to more easily share results among the institutes and the extramural research community.

Funding Recommendation
We are grateful for Congress’s commitment to double the overall NIH budget and we encourage the subcommittee to complete the doubling plan in this fiscal year. We are extremely pleased that the Bush Administration has maintained its commitment to double the NIH budget by including in its proposed budget a recommendation for a $3.7 billion increase for NIH, bringing total funding for NIH to $27.3 billion in FY 2003. This level of funding will complete the goal of doubling NIH’s budget over a five-year period.

The rate of return on the NIH investment is best measured by longer, healthier lives for individuals who currently suffer from debilitating neurological and psychiatric disorders. However, the economic costs and burdens are measurable as well. For example:

- 50 million Americans have a permanent, neurological disability that limits their daily activities.
- 1 in 3 Americans will experience some form of mental disorder at some point in their lives, and more people are hospitalized with neuropsychiatric disorders than any other disease.
- 18 million Americans suffer from depression. Disability from depression exceeds that of diabetes, hypertension, gastrointestinal, and lung diseases, and costs $44 billion annually.
- More than 1 in 20 Americans have developmental disorders of the nervous system, such as cerebral palsy, spina bifida, mental retardation, and learning disorders. Health care associated with these disorders costs $30 billion annually.
- While 7.5 million children and adolescents in the U.S. are affected by a mental, behavioral, or developmental disorder, only one third of them receive treatment.
• 4.5 million Americans are stroke survivors; 150,000 Americans die each year from stroke. The National Stroke Association estimated that stroke costs the U.S. about $43 billion a year.

• 3 million Americans suffer from schizophrenia, the most chronic and disabling of mental illnesses. The cost for treatment exceeds $32.5 billion annually. Approximately 300 new cases are diagnosed every year.

• 2 million people suffer from nerve and muscle disorders, such as Lou Gehrig’s disease and nerve damage associated with diabetes.

• 100,000 Americans are stricken with brain tumors each year, many of which result in paralysis or death. Brain tumors are the second leading cause of cancer death in children under age 15 and in young adults up to age 34.

Mr. Chairman, the statistics are even more compelling when understood in the context of the daily lives of once-ordinary people who suffer from such diseases. Despite public-private funding efforts on the part of companies, philanthropies and foundations such as the Parkinson’s Disease Foundation and the American Cancer Society, the federal government, particularly the National Institutes of Health, is the nation’s leading supporter of biomedical research. Diseases can be eradicated, but research will need continued funding to eliminate them in this century. We need only to point to a review of the recent achievements in neuroscience made through NIH funded research to demonstrate that the subcommittee’s commitment to biomedical research has been worth the investment.

Mr. Chairman, I want to briefly discuss some of the research being done in my area of expertise.

Recent Advances in Basic and Clinical Neuroscience Research:

• Several diseases, such as epilepsy and migraine headaches, once thought to have very little in common, now appear to share a key feature. Cell pores, known as ion channels, normally affect cell communication either directly or indirectly. Fundamental biophysical and genetic studies over the last decade have illuminated a large family of such channels including their structure and function in the nervous system. As a consequence of their basic research we now know that defects in the channels can give rise to a range of seemingly diverse diseases that intermittently attack patients who are otherwise healthy. This discovery may lead to new therapies for these diseases.

• Researchers have been able to track the progress of early onset schizophrenia. The loss of critical working brain tissue in teens with early onset schizophrenia begins in rear perception processing areas and moves toward frontal areas which are responsible for functions such as planning and reasoning. This new study is the first to visualize this progressive brain shrinkage in schizophrenia. The study is part of ongoing research on childhood onset schizophrenia by the NIMH Child Psychiatry Branch. It also utilizes a new 3-D MRI image analysis technique developed by an NIMH grantee.

• Recently, in my own field of adult brain plasticity, cells have been identified in the adult and aging brain that continue to divide. In certain areas of the brain these cells become neurons. Furthermore, we know that the neurons are functional and the rate at which they are born is influenced by behavioral experience as well as diseases such as stroke, epilepsy and depression. These new neurons are derived from stem cells that persist throughout life in the adult brain. This discovery ushers in a new view of the brain as well as a new approach to repair the damaged brain.

1 in 3 Americans will experience some form of mental disorder at some point in their lives, and more people are hospitalized with neuropsychiatric disorders than any other disease.

• Neurofibromatosis is a genetic disorder that affects one in 4,000 people and is often associated with benign tumors called neurofibromas. About half of the affected individuals have cognitive disabilities, which typically include problems with spatial learning and reading. Researchers have traced the problem to excessive activity of a crucial signaling molecule, and have successfully reversed the disabilities in mice in which the resistant human gene has been inserted in their DNA by giving them an experimental drug. Initially, scientists thought the learning difficulty was related to abnormal brain development as a result of the disease. The findings provide hope that these learning problems may one day be treatable in humans. The study was supported, in part, by the National Institute of Neurological Disorders and Stroke (NINDS).

Researchers are not content to point only to past achievements. We are committed to continuing the extraordinary strides that researchers have made toward understanding the causes and mechanisms of neurological disorders. With this subcommittee’s help, we hope to continue on this path of success.

Thank you again, Mr. Chairman, for the opportunity to testify.

Legislative Action Center: CapWiz

The Society’s first experience with a new on-line legislative action center was a resounding success. In March, the Society sent a legislative alert asking members to write their elected officials in support of the Helms Amendment to the Farm Bill, which would exclude rats, mice, and birds from the regulatory provisions of the Animal Welfare Act.

Society members responded with more than 1,360 faxes and e-mails to Capitol Hill, a significant increase over the 92 letters sent a few weeks prior in response to an alert on the same issue. President George W. Bush signed the Farm Bill, including the Helms Amendment, into law on May 13, 2002.

The volume of letters conveying the viewpoint of hundreds of SFN members marks an important turning point in improving the Society’s grassroots effectiveness on Capitol Hill. The Society is seeking new ways for our members to have a voice in Congress, and CapWiz has allowed SFN members to do so efficiently and effectively. Please continue to be aware of Legislative Alerts, and feel free to use CapWiz to reference other pieces of legislation that may be of interest to you, or if you just want to find out more about your Member of Congress. The new on-line legislative action center is located on SFN’s Web site at: http://capwiz.com/sfn/home/. If you have any questions about CapWiz, please contact Allison Wainick, Government and Public Affairs Manager (allisonw@sfn.org).
The new Oregon Chapter of the Society for Neuroscience held its second annual meeting on May 11–12, 2002, at Salishan Lodge on the Oregon Coast. Larry Squire was the keynote speaker. The membership, which draws primarily from Oregon Health Sciences University (OHSU) in Portland, University of Oregon in Eugene, and Oregon State University in Corvallis, has grown both in enthusiasm and size.

This spring, the Brain Awareness Week (BAW) activities held in Portland involved more than 100 scientists from OHSU, a dozen neurological advocacy organizations, the statewide coalition of children and family services organizations, and displays from the Brain Power Van from the Pacific Science Center in Seattle. All of these contributors and organizations came together for a two-day interactive Brain Fair at the Oregon Museum of Science and Industry (OMSI), which was also hosting the Pfizer brain exhibit, just released from the Smithsonian for a national tour.

This busy fair capped a five-week “Life of the Brain” public lecture series—also generously supported by Pfizer—which drew standing-room-only crowds. The keynote lecture was delivered by author and neuropsychiatrist, Richard Restak, to over 600 individuals who were truly delighted by his presentation. Restak also spoke at Powell’s City of Books in Portland on his new book, The Secret Life of the Brain, the companion to the public television series that aired in February. Two additional BAW public lectures were given to packed auditoriums, their focus on the learning brain and Alzheimer’s disease prevention and delay. Videotapes of all seven lectures were replayed to large audiences at OMSI, as well as several times on the Portland public access television channel.

A BAW workshop on teaching neuroscience and brain-compatible education drew 280 teachers and featured Pat Wolfe and Eric Chudler. This event is helping to build a strong foundation for OHSU’s science outreach effort.

Oregon’s Brain Bee evolved into a Brain Bowl this year, with teams from area high schools competing for the opportunity to win prizes and lunch with the president of OHSU, Peter Kohler. Next year’s Brain Bowl will go statewide.

As stated in a Brain Awareness Week article featured in The Oregonian, Portland’s newspaper, “Clearly Oregonians have a special interest in neuroscience research—and a special responsibility to support the institutions that provide it.”

SFN Awards and Fellowships
Apply now! The deadline for complete nomination or application packages is Monday, June 3, 2002. For more information about these awards, including application criteria, please visit www.sfn.org/awards or write to info@sfn.org.

SFN Chapters/Eli Lilly Graduate Student Travel Awards
This award provides $500 in travel expenses plus meeting registration fees to honor outstanding graduate students nominated by their local chapters. Each Chapter may submit a single nomination to the SFN Chapters Committee for consideration. Interested applicants must apply to and be nominated by their local SFN Chapter. Visit www.sfn.org/chaps to find the Chapter nearest you.

Minority Travel Fellowship Program
The Society for Neuroscience Minority Travel Fellowship Program is a three-year fellowship that provides travel assistance to the Society’s Annual Meeting along with mentoring, enrichment opportunities and SFN membership benefits. Funds to participate in external enrichment activities outside the fellow’s home laboratory are also provided. This fellowship is sponsored by NINDS.

Young Investigator Award
The Young Investigator Award, sponsored by AstraZeneca Pharmaceuticals LP, is given each year to an outstanding neuroscientist who has received an advanced professional degree within the past 10 years. The award consists of complimentary registration at the annual meeting, two nights’ complimentary hotel accommodations, a $5,000 honorarium, and a plaque.
TRANSCRANIAL MAGNETIC STIMULATION

Day after day, you pay little attention to the strawberry magnet that keeps your grocery list neatly tacked to the fridge. But now, following a series of careful studies, neuroscientists report that some magnets and the special forces they produce deserve a second look. Specifically, research indicates that powerful magnetic fields used in a technique known as transcranial magnetic stimulation, or TMS, can alter and sometimes aid brain activity. The findings are leading to:

- A better understanding of the effect of magnetic fields on the brain.
- New ideas on how to treat brain illnesses, such as depression.

While sticking a refrigerator magnet on your head will do no more than make you look funny, starting in 1985 researchers began to find evidence that high-powered magnetic techniques create large effects. That year they introduced TMS and found that its activation over a brain area involved in movement stimulated brain activity and triggered muscle twitches.

At first scientists used TMS mainly as a research tool to gain insights into how the brain works. But in recent years, scientists refined the strategy and found evidence that it can change brain activity and sometimes alleviate depression.

During current TMS sessions (see illustration) a researcher holds an electromagnetic coil against the scalp. It produces almost painless magnetic pulses that easily pass through the skull. These pulses then induce an electric current that alters the activity of the brain's nerve cells. Typically, for depression, the sessions last a half hour and occur each...
weekday for two to four weeks.

Recently, several small studies show that compared to fake stimulation, the TMS strategy improves the mood of people with depression without causing any major side effects. A large study, designed to include more than 85 depressed patients, is underway to confirm the benefits. Researchers also are trying to unravel how it works to improve mood. Many believe that depressed individuals have depressed activity in the front part of the brain, and some speculate that TMS works by boosting this activity.

Researchers currently are comparing TMS in humans and animals with another brain-altering therapy, electroconvulsive therapy or ECT, to determine the most effective technique. Doctors often use ECT on severely depressed patients who don’t respond well to antidepressant medications. In ECT, electrodes placed on the scalp trigger electrical stimulation of the brain. But unlike the TMS treatment, which creates targeted activity, ECT currents have trouble crossing the skull and create widespread brain stimulation.

In other work, scientists are finding that additional brain ailments may benefit from TMS. For example, researchers found that TMS applied to the front part of the brain speeds up the ability of healthy volunteers to solve puzzles requiring skills in analogical reasoning. Next, they plan to test whether the technique can help reassign lost abilities in patients with brain disorders, such as Parkinson’s disease and stroke.

Some research also indicates that TMS tuned to emit a low frequency force can reduce brain activity, which suggests that it may help disorders tied to overactivity in the brain. Recently, one study examined the effect of TMS on people who have the brain disorder, schizophrenia, and hear imaginary voices. Directed at brain areas that process speech and may be overactive in the patients, TMS muted the voices. In another example, researchers tested TMS on patients with post-traumatic stress disorder.

This condition, marked by anxiety and depression, seems to involve high activity in brain circuits involved in negative emotions. Low-frequency TMS decreased the activity in these circuits and improved symptoms.

With continued research, many scientists are confident that magnetic stimulation will help treat these illnesses and many others.
New Diversity Guidelines for Meetings and Conferences

At their April meeting, the Society’s Council approved guidelines to insure that a diverse representation of the neuroscience community appears on the roster for annual meeting symposia, lectures and satellite events.

These guidelines, which are in effect for the 2002 annual meeting in Orlando, focus on achieving an appropriate representation of women and minorities as invited speakers for the meeting; striking a good balance of new and established investigators on the roster; and having broad geographical representation for meeting presentations.

Council suggests that organizers of meeting events could enhance diverse representation by leaving speaker slots open to applicants who submit abstracts, and encouraging women, minorities and young investigators to apply for the open slots. This strategy would create opportunities for neuroscientists who are not yet well known in the field or who may not be acquaintances of the organizers to present their work.

If available, travel stipends could be offered to junior faculty, under-represented students and postdoctoral fellows who might lack adequate funds to attend the meeting. Information about how to apply for travel subsidies should be provided.

Neal Miller, SFN Past President and Founding Member, Dies at 92

Neal Elgar Miller, one of the most accomplished behavioral neuroscientists of the 20th century, who was a founding member of the Society and its president in 1971–72, died on March 23, 2002. He is survived by his second wife, Jean Shepler of Hamden, Conn.

Miller investigated Freudian theory and clinical phenomena using experimental analysis of behavior techniques. He asked how the Freudian phenomena could be understood in terms of the basic laws of learning and behavior as they were known in the 1940s. This work led to new perspectives on personality and social learning and two influential books with John Dollard, Social Learning and Imitation (1941), and Personality and Psychotherapy (1950). When his studies showed that fear can be acquired—that is, that it can function as a learnable drive—Miller proceeded to ask whether other drives such as hunger and thirst also could be learned. He played a major role in the development of physiological psychology as a field, now referred to as behavioral neuroscience. He was a passionate advocate for the importance of animals in psychological research.

“He strongly encouraged and supported me as a young scientist in my studies of stress and sex hormone actions in the brain, and his lab provided a wonderful environment for me to learn about behavioral science,” said Bruce McEwen, a Rockefeller neuroscientist and former SFN president. “He strongly influenced me over the years to apply basic research knowledge about stress hormone actions to a better understanding of human health and disease.”

Miller was born in Milwaukee, Wisconsin on August 3, 1909. He was educated at the University of Washington, Stanford and Yale from which he received a PhD in psychology in 1935. He served on the faculty at Yale from 1936 to 1966 when he took an appointment at the Rockefeller University where he worked for the next 15 years. Miller became professor emeritus at Rockefeller in 1981 and research affiliate at Yale in 1985.

He was elected to the National Academy of Sciences in 1958 and as Fellow of the American Academy of Arts and Sciences in 1961. In 1964, Miller received the National Medal of Science, the highest scientific honor given in the United States. He served as president of the American Psychological Association in 1960-61.

The Society acknowledges the passing of members on our Web site at www.sfn.org/obituaries/. It is the practice of the Neuroscience Newsletter to print obituaries only for those who have had a very special relationship to the Society, such as a past president or Nobel Prize winner. – The Editors.

SFN Announces Rolling Membership

Eliminating the spring and fall deadlines, the Society for Neuroscience now accepts new applications for membership throughout the year. All applications will be granted immediate review and will receive notification of membership status within 2-3 weeks as long as applications are complete. Dues will be required at the time of submission. Please note that due to the 2–3 week review process, applications for membership status during the annual meeting will need to be received by the SFN office by October 1. Confirmation of membership or status change must occur prior to registering for the annual meeting. The qualifications for membership continue unchanged, including being active in the field of neuroscience or a related field, and being sponsored by two Regular or Emeritus members. For details of the application and approval process or to download an application form, please visit www.sfn.org/JoinNow.
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